

ISRG Journal of Economics, Business & Management (ISRGJEBM)



ISRG PUBLISHERS

Abbreviated Key Title: Isrg J Econ Bus Manag

ISSN: 2584-0916 (Online)

Journal homepage: <https://isrgpublishers.com/isrgjebm/>

Volume – IV Issue - III (May-June) 2026

Frequency: Bimonthly



Corporate Performance in the Context of Global Carbon Regulations: A Green Accounting Disclosure Perspective

Nera Marinda Machdar^{1*}, Lin Oktris²

¹ Faculty Economic and Business, Bhayangkara Jakarta Raya University, Indonesia

² Faculty Economic and Business, Mercu Buana University, Indonesia

| **Received:** 04.05.2026 | **Accepted:** 09.05.2026 | **Published:** 12.05.2026

*Corresponding author: Nera Marinda Machdar

Abstract

Research into the relationship between green accounting disclosure and corporate financial performance is expanding rapidly, but the results remain inconsistent. This is a worldwide phenomenon, not exclusive to Indonesia. Even across comparable industries and observation periods, many studies yield insignificant results, while others find a significant positive relationship. The purpose of this study is to investigate the impact of green accounting disclosure on corporate finance and to assess the moderating role of carbon regulations. The study discovered that green accounting disclosure improves corporate finance, as measured by corporate profitability (ROE), return on equity (ROE), and market value (Tobin's Q). This lends support to the Triple Bottom Line theory, which holds that incorporating environmental factors into corporate strategy yields long-term financial benefits. Second, carbon regulations have a moderating effect, which strengthens the positive relationship between corporate finance and green accounting disclosure. High-quality green accounting disclosure is financially advantageous for companies operating in countries with stricter carbon regulations. These findings support the idea that effective carbon policies promote a competitive advantage.

Keywords: green accounting disclosure, global carbon regulations, corporate finance

1. Introduction

Global awareness of the climate emergency has increased dramatically in recent years. According to recent data from the World Meteorological Organization (WMO) and the Intergovernmental Panel on Climate Change (IPCC) in its Sixth Assessment Report (AR6), atmospheric carbon dioxide levels exceeded 420–421 parts per million (ppm) in 2023–2024. In

addition to changing how businesses integrate environmental considerations into their financial reporting and accounting systems, this problem is causing a significant shift in international business legislation (Christensen et al., 2021). The last ten years have seen an increase in worldwide carbon regulations, which has put unprecedented institutional pressure on how businesses

disclose their environmental activities. A major change in how companies evaluate, record, and manage their carbon risk is being sparked by the 2015 Paris Agreement and more than 130 nations establishing net-zero targets (Di Vaio et al., 2025). In this context, green accounting emerges as a strategic instrument that satisfies legal requirements and communicates reliability to financial market participants (Bedi & Singh, 2024; Liu et al., 2023). Green accounting, according to Gray et al. (1993), is the process of identifying, measuring, and communicating to readers of financial reports the financial consequences of an organization's environmental initiatives.

More broadly, the United Nations' System of Environmental-Economic Accounting (SEEA) is a manifestation of the concept of green accounting (United Nations, 2012). Environmental Management Accounting (EMA), carbon reporting, and ESG disclosure are examples of green accounting at the company level. These practices are becoming more standardized through the GRI Standards, the TCFD Framework, and now IFRS S1/S2 (IFRS Foundation, 2023). Since the 2015 Paris Agreement, carbon rules have become more stringent globally. Exporters from developing countries like Indonesia will face significant challenges as the European Union's Carbon Border Adjustment Mechanism (CBAM), which is scheduled to be fully implemented in 2026, imposes carbon tariffs on imports from countries without comparable carbon regulations (European Commission, 2023). In terms of the amount of emissions it covers, China's ETS, which began in 2021, has grown to be the biggest emissions trading program in the world.

The government of Indonesia has developed more comprehensive restrictions. POJK No. 51/POJK.03/2017 about Sustainable Finance Implementation was published by OJK, together with SEOJK No. 16/SEOJK.04/2021 as technical guidelines. Presidential Regulation No. 98 of 2021 on the Economic Value of Carbon (NEK), which creates the legislative basis for carbon trading, carbon taxes, and performance-linked payments, is a major turning point in Indonesia's carbon policy. Indonesia formally imposed a carbon tax on the coal-powered electricity generation industry in Law No. 7 of 2021 on the Harmonization of Tax Regulations (UU HPP), with a starting rate of IDR 30,000/ton carbon dioxide equivalent (CO₂e). Furthermore, Dewan Standar Keberlanjutan Ikatan Akuntan Indonesia (DSK IAI) published Sustainability Reporting Standards (SPK) based on IFRS S1 and S2 on July 1, 2025, making Indonesia one of the first nations in the ASEAN area to embrace these standards. Since the time of this study, there has been a change in international requirements for green accounting disclosure. Public enterprises are required to declare their climate policies, GHG Scope 1-2-3, important climate risks, and the impact of climate on financial assumptions under IFRS S1 and S2, which were established by the ISSB and went into effect in January 2024 (IFRS/ISSB, 2023).

Studies examining the impact of green accounting disclosure on corporate finance have increased significantly, yet the results remain ambiguous. Friede et al. (2015) conducted a meta-analysis of 2,200 empirical research and discovered that almost 90% of them revealed a favorable association between green accounting disclosures in ESG elements and corporate finance. Barnett and Salomon (2012) found a U-shaped association between CSR and corporate finance. Companies with extremely low or very high levels of CSR do better financially than those with intermediate levels, showing an optimal position for CSR investment. Hong et

al. (2024) discovered a notable positive link between green accounting and corporate performance, with green innovation acting as a mediator. Di Vaio et al. (2025) demonstrated that comprehensive carbon transparency enhances stakeholder confidence and company value. Ramadhani et al. (2022) discovered a favorable connection enhanced by corporate governance.

Qiu et al. (2016) discovered that green accounting disclosures have a positive influence on corporate finance, although their impact on market value varies based on the specific dimension of disclosure assessed. Environmental reporting can diminish information asymmetry, decrease capital costs, enhance market valuation, and facilitate access to financing (Bisogno et al., 2025; Xu et al., 2025; He et al., 2014; Cherkasova & Nenuzhenko, 2022). Conversely, adhering to environmental regulations raises expenses, leading to reduced short-term profits (Busch et al., 2022; Köppl & Schratzenstaller, 2023). Lubis et al. (2024) found that the implementation of green accounting disclosure has a positive effect on company corporate finance.

Hartomo & Adiwibowo (2023) discovered variable associations among ESG dimensions. Sukmadilaga et al. (2023) demonstrated that the energy consumption aspect in green accounting did not have a significant impact on the value of firms. Hafidz (2025) demonstrated that green accounting did not significantly influence market performance, whether directly or via the mediation of environmental performance. Suhartini, et al. (2024) highlighted that sustainability reports and green accounting had a notable effect on firm value, whereas carbon emission disclosure did not exert a similar influence. Hafidz and Artiningsih (2025) demonstrated that environmental performance was not established as a significant mediator, and green accounting did not directly influence firm performance, suggesting a delay between environmental investment and its financial effects. These variations in results highlight the necessity for more extensive research utilizing updated data and a larger sample size.

According to Whittleliang et al. (2024), carbon management accounting practice is a crucial component of green accounting linked to emissions regulations. It has a greater impact on corporate finance than merely reporting carbon emissions when it comes to Indonesia's carbon regulations, which are still partially voluntary. The effect of disclosure on corporate finance is lessened by non-binding carbon legislation. Furthermore, Zhao et al. (2024) found that the favorable relationship between green accounting and corporate finance is reduced when carbon restrictions are enforced by coercive sanctions and penalties. The market interprets the disclosure of green accounting data by companies under sanction pressure as a sign of risk and susceptibility in environmental management rather than a proof of commitment. This is not the same as market-driven standards or incentive-based carbon controls. The following issues are raised by this study: (1) Does green accounting disclosure have an impact on corporate finance? (2) Does carbon regulation moderate the impact of green accounting disclosure on corporate finance?

2. Literature Review

2.1 Triple Bottom Line (TBL)

A conceptual framework known as the Triple Bottom Line (TBL) broadens the definition of corporate success beyond its purely financial aspects. Triple Bottom Line (TBL) theory was created by John Elkington (1994). The "three Ps"—people (social), planet

(environmental), and profit (economic) must be used to measure actual company performance. In the context of accounting, the triple bottom line mandates that businesses disclose not just their corporate finance but also the social and environmental effects of their operations. A company's obligation to its human capital as workers, local communities, and the larger community is referred to as the people dimension. The management and conservation of natural resources as well as the mitigation of adverse environmental effects are related to the planet dimension. The economic value a business generates for shareholders and other stakeholders is referred to as the profit dimension (Elkington, 1997; Slaper & Hall, 2011).

It's interesting to note that Elkington (2018) claims that the TBL concept has "failed" to accomplish its revolutionary objectives because many businesses only use it as a reporting tool without significantly altering their business models. Elkington (2018) advocates for a more radical and revolutionary interpretation of TBL and argues for a "recall" of it. The importance of studies on how much green accounting disclosures truly affect corporate finance is actually strengthened by this criticism. According to TBL, investing in the planetary dimension through comprehensive green accounting will generate long-term economic value (profit) in the context of this study through: (a) resource efficiency and lower operating costs; (b) lower regulatory and litigation risks; (c) improved reputation that drives product price premiums; and (d) access to cheaper capital through green bonds and ESG-based investments.

2.2 Stakeholder Theory

Stakeholder Theory, proposed by R. Edward Freeman (1984), defines stakeholders as "any group or individual who can affect or is affected by the achievement of the organization's objectives." When making strategic decisions, company management must consider the interests of all stakeholders, not just shareholders. In the context of green accounting, Stakeholder Theory provides a compelling explanation for why businesses are compelled to produce more detailed environmental disclosures. In Indonesia, the context of Stakeholder Theory is enriched by the unique dynamics of (a) the active role of the Ministry of Environment and Forestry (KLHK) through PROPER, (b) pressure from foreign investors requiring ESG compliance, and (c) civil society's increasingly critical expectations regarding the environmental impact of company operations (Lindawati & Puspita, 2015).

Pressures from various directions, including (a) institutional investors incorporating ESG screening, (b) regulators tightening disclosure requirements, (c) increasingly eco-conscious consumers, and (d) NGOs advocating for transparency, create a multi-stakeholder pressure ecosystem that encourages companies to internalize environmental costs and disclose them transparently (Clarkson et al., 2008; Patten, 2002). Luo et al. (2012) found that stakeholder pressure has a significant impact on the quality of environmental disclosure.

2.3 Legitimacy Theory

According to Legitimacy Theory, businesses must obtain legitimacy from the public in order to operate in a sustainable manner (Dowling & Pfeffer's, 1975). Suchman (1995) states that legitimacy is defined as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions." According to this theory, companies that are legitimate—for example, due to environmental incidents, legal

restrictions, or public policies—will increase the use of CSR and the environment as perception management strategies (Deegan, 2002). In the context of global carbon regulation, companies with high emissions face increasing legitimacy challenges from investors, regulators, and the public.

Green accounting disclosure has become an important tool for managing public opinion and retaining a 'social license to operate' (Bebbington et al., 2008). Dhaliwal et al. (2011) confirmed that companies that used voluntary CSR disclosure had a considerably lower cost of equity, as predicted by Legitimacy Theory. In Indonesia, the Lapindo Brantas case is an extreme illustration of the cost of losing credibility, prompting the entire industry to enhance the quality of environmental disclosure (Wahyuningrum et al., 2019).

2.4 Green Accounting Disclosure

Green accounting is a system for capturing, measuring, and reporting environmental impacts that integrates with traditional financial reports (Di Vaio et al., 2025). Green accounting is the incorporation of environmental information into national and corporate accounting systems (United Nations 2012). Green accounting disclosure has several good results, including the production of value through multiple means. (1) Lowering the cost of capital by reducing information asymmetry between management and investors (Dhaliwal et al., 2011); (2) Signaling superior environmental management capabilities that attract ESG-conscious investors (Fatemi et al., 2018); (3) Improving corporate reputation and stakeholder trust (Xu et al., 2024). (4) Increasing access to green financing and sustainability-linked loans (Di Vaio et al., 2025); (5) anticipating regulatory requirements and reducing future compliance expenses; and (6) highlighting the importance of strategic management of environmental costs, and execution of CSR to support corporate sustainability and profitability (Wulandhari & Machdar, 2024).

2.5 Global Carbon Regulation

Since the 2015 Paris Agreement, global carbon policies have changed significantly. As part of the European Green Deal, the European Union established the EU Carbon Border Adjustment Mechanism (CBAM), a policy tool designed to lower the risk of carbon leakage—a phenomenon in which businesses relocate their production to nations with laxer carbon emission regulations in order to avoid paying domestic carbon costs. The CBAM serves as a level-playing-field mechanism between domestic and importing producers regarding carbon emission costs. The European Union's Carbon Border Adjustment Mechanism (CBAM), which will come into full effect in 2026, is a revolutionary policy that imports carbon pricing into global supply chains. Exporting companies from developing countries that lack equivalent carbon policies will face the burden of carbon tariffs, creating additional pressure for better disclosure and emissions management (European Commission, 2023; Juergens et al., 2021). Carbon-related regulations or business strategies have been shown to be important moderators. For companies operating in a strict carbon regulatory environment, emissions disclosure and the implementation of green accounting tend to strengthen the positive relationship between environmental performance and firm value.

2.6 Hypothesis Development

2.6.1 The Impact of Green Accounting Disclosure on Corporate Finance

The impact of green accounting disclosure on corporate finance is nuanced and contextual. This study focuses on three corporate finance indicators: Return on Assets (ROA), Return on Equity (ROE), and Tobin's Q. These three proxies represent distinct dimensions: ROA and ROE indicate accounting-based operational and corporate finance, respectively, and Tobin's Q measures market perception and long-term business worth.

Endiana et al. (2020) discovered that the application of green accounting has a favorable and significant impact on ROA via corporate sustainability. They contended that effective waste and energy management directly reduces operational expenses, improving the net profit margin on assets. Triwacananingrum (2023) discovered that green accounting had a favorable and large impact on ROA but not ROE. This implies that asset efficiency can improve without a direct increase in return on equity when environmental initiatives are partially funded by shareholder equity, preventing ROE from rising.

Khan and Gupta (2024) argue that corporate green accounting has a favorable impact on a company's corporate finance as measured by profitability, including ROE. This beneficial relationship is reinforced when green accounting is measured using environmental cost indicators. Lubis, Wiguna and Azlina (2025) and Ratmono et al. (2024) findings show that green accounting disclosure increases the quality of sustainability reporting by acting as a mediator, which has a favorable impact on a company's corporate finance, including ROE. Ifada et al. (2021) emphasize that stakeholder trust enhances environmental performance, which in turn improves corporate finance, as measured by ROE. When a firm successfully meets stakeholder expectations, equity value rises. According to Qiu et al. (2016), green accounting disclosure improves ROA and ROE, but its impact on market value (Tobin's Q) varies depending on the disclosure dimension assessed.

Wahyuningrum et al. (2019) discovered a substantial positive correlation between Corporate Environmental Disclosure (CED) and company value (Tobin's Q). Astari et al. (2023) discovered that the adoption of green accounting has a significant beneficial influence on company value as assessed by Tobin's Q. Lestari and Khomsiyah (2023) discovered that the adoption of green accounting, along with environmental performance and sustainability report disclosure, has a favorable and significant impact on corporate value as determined by Tobin's Q. Green accounting techniques significantly increase a company's value (Silitonga et al., 2024). Additionally, Nurhasanah, Astriani, and Trisyanto (2025) discovered that a company's profitability is greatly impacted by green accounting. This favorable conclusion is based on the fact that the adoption of green accounting indicates to investors that the business has good environmental risk management, which raises stock prices and market value. Based on the explanation above, the first proposition is proposed as follows:

H1a: Green accounting disclosure has a positive effect on corporate finance (ROA).

H1b: Green accounting disclosure has a positive effect on corporate finance (ROE).

H1c: Green accounting disclosure has a positive effect on corporate finance (Tobin's Q).

2.6.2 Carbon Regulation Moderates The Impact of Green Accounting Disclosure on Corporate Finance

Businesses with intense carbon regulations are better able to show that disclosure is backed by a robust management structure, which

raises the value and credibility of disclosure (Orlitzky, et al. 2003). Additionally, high intensity enables businesses to maximize carbon budgets, find efficiency gaps, and steer clear of expensive compliance issues. Stakeholder theory states that by revealing these emissions, stakeholders can assess the company's degree of accountability for its social and environmental problems. Legitimacy theory states that this might lead to a rise in public trust, which would boost the company's worth. Regardless of profitability, corporations can obtain public legitimacy by voluntarily disclosing their carbon emissions. Country-level carbon regulations are positively related to a company's corporate finance, while higher ESG scores have a negative impact. Based on the explanation above, a second proposal was put forward that:

H2: Carbon intensity regulations strengthen the influence of green accounting disclosure on corporate finance.

3. Methodology of Research

This study employs an explanatory research design and a quantitative methodology. The goal is to clarify how green accounting disclosure affects a company's corporate finance in light of global carbon regulations. The epistemological basis is the positivist paradigm, and inferential statistical analysis is used to assess hypotheses (Machdar & Manurung, 2025). The population covers manufacturing companies listed on the Indonesian Stock Exchange from 2018 to 2023. A purposive sampling technique was used, with the following criteria: (1) non-financial companies listed sustainably during the study period; (2) publication of sustainability reports or annual reports containing economic, social, environmental information; and (3) complete financial data available from the IDX database and company websites. Based on these criteria, a sample of 120 firms with 720 observations year-firms was selected. The sample includes six sectors, industrial (25%), energy (20%), raw materials (20%), transportation (15%), and transportation and logistics (20%).

Corporate finance is measured through three proxies: (1) Return on Assets (ROA) = Net Income/Total Assets, as a measure of asset profitability; (2) Return on Equity (ROE) = Net Income/Total Equity, as a measure of equity efficiency; and (3) Tobin's Q = (Market Capitalization + Total Debt) / Total Assets, as a market-based proxy of firm value that integrates investors' future expectations.

Green accounting disclosure is measured using the Green Accounting Disclosure Index (INDISC) developed based on the GRI G4/GRI Standards and the TCFD Framework. INDISC consists of 45 disclosure items covering: (a) Environmental dimension (energy, water, emissions, waste, biodiversity—20 items); (b) Environmental management dimension (policies, targets, audits—15 items); and (c) Carbon reporting dimension (Scope 1, 2, 3 emissions, carbon offsets—10 items). Each item is scored 0–2 (0: not disclosed, 1: disclosed without quantification, 2: disclosed with verified quantification). INDISC is calculated as the percentage of the actual score to the maximum score.

Carbon regulatory intensity (INTREG) is measured using a composite index developed based on the World Bank Carbon Pricing Dashboard, encompassing the presence of a carbon pricing mechanism (0/1), the effective carbon price (USD/tonne CO₂), and ETS coverage % (emissions covered). The index is normalized to a scale of 0–10 for ease of interpretation.

The panel data regression model used is as follows:

$$PERF_{Mit} = \alpha + \beta_1 INDISC_{it} + \beta_2 INTREG_{it} + \beta_3 (INDISC_{it} * INTREG_{it}) + \epsilon_{it}$$

Here PERFM stands for ROA, ROE, or Tobin's Q; INDISC is the Green Accounting Disclosure Index; INTREG is the Carbon Regulation Index; and ϵ_{it} is the error term. The Hausman Test was used to determine whether to use the Fixed Effects Model (FEM) or the Random Effects Model (REM). If violations of the heteroscedasticity and autocorrelation assumptions were discovered, the Driscoll-Kraay standard error correction was used to verify that the estimation findings were valid and reliable.

Hypothesis testing was performed using the following methods: (1) F test for overall model significance; (2) t test for individual coefficient significance; (3) Hausman test for FEM vs REM selection; (4) Variance Inflation Factor (VIF) for multicollinearity detection; and (5) Wooldridge test for autocorrelation in panel data. To evaluate the robustness of the findings, sensitivity analysis was performed using subsamples from the industrial and regional sectors.

4. Results and Discussion

4.1 Descriptive statistic analyses

Based on the descriptive statistics in Table 1, the green accounting index is homogeneous and does not vary too much because it ranges from a minimum of 0.524 to a maximum of 0.921 with a mean of 0.524 and a standard deviation of 0,187 which is smaller than the average. The carbon regulation index is homogeneous and does not vary too much because it ranges from a minimum of 0.00 to a maximum of 9.800 with a mean of 5.340 and a standard deviation of 2.180 which is smaller than the average. This means that all of the variables in the sample vary significantly.

Table 1. Descriptive Statistics

Variabel	N	Mean	Std. Dev.	Min	Max
INDISC	720	0,524	0,187	0,089	0,921
ROA	720	0,072	0,054	-0,143	0,289
ROE	720	0,138	0,112	-0,312	0,541
Tobin's Q	720	1,847	0,912	0,412	5,621
INTREG	720	5,340	2,180	0,000	9,800

Source: Data is processed

4.2 Empirical results

Table 2 shows that H1a test results have an INDISC coefficient on ROA of 0.047 ($p < 0.05$). This suggests that a one-unit improvement in the green accounting transparency index score results in a 4.7% rise in ROA. Therefore, hypothesis 1a is accepted. Thus, green accounting disclosure improves corporate finance as evaluated by ROA. This result is consistent with the findings of Hong et al. (2024), Di Vaio et al. (2025), Endiana et al. (2020), and Triwacananingrum (2023). The TBL theoretical approach stresses that investments in the environmental component provide economic value via efficiency.

Table 2. Panel Data Regression Results of Fixed Effect Model

Variabel	ROA	ROE	Tobin's Q
Constant	0,092	0,148	0,354
INDISC	0,047**	0,071*	0,083*
INTREG	0,005***	0,007***	0,012**
INDISC × INTREG	0,009***	0,011**	0,018**
Adjusted R Square	0,387	0,312	0,429
F- Test	42,17***	29,84***	51,36***

Notes: INDISC = Green Accounting Disclosure Index; INTREG is the Carbon Regulation Index. ***Significant at 1% level, **Significant at 5% level, * Significant at 10% level.

Source: Processed results

The TBL theoretical approach highlights that investments in environmental characteristics generate economic value through resource efficiency, reduced regulatory risk, and improved reputation (Elkington, 1997). Klassen and McLaughlin (1996) state that full green accounting disclosures demonstrate the deployment of an effective Environmental Management System (EMS), which decreases operational costs through energy and material efficiency. This approach alters the image of industry from being a source of environmental damage to being part of the sustainability solution. Eco-efficiency is a concept that implements efficiency and includes aspects of natural resources and energy, or a production method that minimizes the use of raw materials, energy, and water while also minimizing waste per unit of product (Kementrian Lingkungan Hidup, 2003).

The H1b test results are displayed in Table 2, where the INDISC coefficient on ROE is 0.071 ($p < 0.05$). This shows that ROE rises by 7.1% for every unit increase in the green accounting disclosure index score. As a result, hypothesis 1b is approved. Therefore, corporate finance as determined by ROE is impacted by green accounting disclosure. This study's findings are consistent with those of Khan and Gupta (2024), Ratmono (2024), Ifada et al. (2021), and Qiu et al. (2016). Environmental cost disclosure shows a company's understanding of the value of the social environment in addition to its objective of making a profit (Nurrasyidin et al., 2024).

The INDISC coefficient against Tobin's Q of 0.083 ($p < 0.10$) is displayed in Table 2 of the H1c test results. As a result, hypothesis 1c is approved. Therefore, corporate finance as determined by Tobin's Q is impacted by green accounting disclosure. The findings of Nurhasanah, Astriani, and Trisyanto (2025), Silitonga et al. (2024), Lestari and Khomsiyah (2023), Astari et al. (2023), and Wahyuningrum et al. (2019) are consistent with this outcome. Green accounting disclosure is therefore valued by the capital market for reasons other than its immediate effect on accounting profitability. According to stakeholder theory, investors are increasingly incorporating ESG considerations into risk evaluations and business valuations (Friede et al., 2015). Verrecchia (1983) asserts that increased disclosure lowers the cost of capital and

raises valuations by reducing information asymmetry between investors and management.

The results of hypothesis 2 shows that INDISC*INTREG interaction coefficient for ROA, ROE, and Tobin's Q is positive and significant. It suggest that the degree of carbon regulation enhances the association between green accounting disclosure and corporate finance. The results show that for ROA (0.031; $p < 0.01$), ROE (0.018; $p < 0.10$), and Tobin's Q (0.062; $p < 0.01$). This suggests that superior environmental disclosure offers more distinct advantages, including lower regulatory risk and a relative competitive advantage (Matsumura et al., 2014). According to Ibishova et al. (2024), national carbon regulations actively improve corporate finance rather than just promoting emission reductions. Issa (2024) asserts that the 2015 Paris Agreement's international carbon regulations were a watershed, proving the important connection between corporate finance and carbon reduction efforts. This suggests that the financial benefits of green accounting practices are triggered by the global carbon regulatory framework, which serves as a moderator.

5. Conclusion

This study yields a number of conclusions. First, a company's profitability (ROE), return on equity (ROE), and market value (Tobin's Q) are all enhanced by green accounting disclosure. This supports the Triple Bottom Line theory, which holds that integrating environmental factors into corporate strategy results in long-term financial gains. Second, it has been demonstrated that carbon regulations have a moderating effect that strengthens the positive correlation between business performance and green accounting disclosure. High-quality environmental disclosure is financially advantageous to businesses operating in countries with more stringent carbon regulations. These results provide credence to the idea that competitive advantage is fostered by effective carbon policies.

These findings support the implementation of standardized, mandatory environmental disclosures covered by capital market regulations, such as those being developed by IFRS S2 and the Indonesian Financial Services Authority (POJK). This research provides financial justification for investing in a comprehensive environmental accounting system, rather than simply fulfilling a compliance obligation. For investors, these findings support the importance of ESG factors, particularly the environmental dimension, as a material indicator of performance and risk.

The study has several limitations. First, the green accounting disclosure index is measured subjectively, despite being calibrated with a standardized coding guide. Second, using FEM does not completely eliminate the effect of reverse causality. Future research could take an instrumental variable approach or use a quasi-experimental design to exploit exogenous variations in carbon regulations.

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