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Research Article

The Impact of ESG-Related Financial Disclosure Laws on Corporate Financial Performance

[1]Xiao Lei Huang, [2]Gao Zhou, [3]Hai Hong Yao, [4]Haibin Liu
[1]Doctor of Philosophy in Management
Lyceum of the Philippines University-Batangas
email:943913311@qq.com
[2]Doctor of Philosophy in Management
Lyceum of the Philippines University-Batangas
email：27625508@qq.com
[3]Doctor of Philosophy in Criminal Justice with Specialitation in Criminology
Lyceum of the Philippines University-Batangas
email:390291810@qq.com
[4]Doctor of Philosophy in Management and Doctor of Business Administration
Lyceum of the Philippines University-Batangas
University of Montpellier
email: liuhaibin1204@163.com

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ABSTRACT

This research examined the effects of regulations pertaining to environmental, social, and governance (ESG) financial disclosure on the financial performance of companies over the course of five years using data from 300 publicly traded companies across a range of industries. The study compared the financial performance of businesses both before and after mandatory ESG disclosure regulations were implemented using a difference-in-differences (DiD) method. Increases in market valuation as measured by Tobin's Q, Return on Equity (ROE), and Return on Assets (ROA) were among the metrics that demonstrated how ESG disclosure regulations substantially boosted firm profitability. The results show how environmental, social, and governance (ESG) disclosure can promote sustainable business practices, increase investor confidence, and decrease knowledge asymmetry. Company managers and regulators seeking to incorporate governance, social, and environmental factors into financial reporting systems may find useful information in this study, which contributes to the growing corpus of literature on the financial benefits of ESG compliance.

Keywords: ESG disclosure, financial performance, corporate governance, sustainability reporting, difference-in-differences, Return on Assets, Return on Equity, Tobin’s Q.

INTRODUCTION

Environmental, social, and governance (ESG) factors have become increasingly important in evaluating long-term value generation and company sustainability in recent years. Regulators, investors, and stakeholders are calling for more openness in how businesses handle these non-financial issues as a

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result of the growing worldwide awareness of social inequality, climate change, and corporate ethics. In order to standardize the reporting of ESG practices and risks, numerous nations and regulatory agencies have implemented ESG-related financial disclosure legislation. These regulations compel businesses to reveal pertinent details about their governance frameworks, social responsibility programs, and environmental impact—all of which are thought to have an impact on both financial performance and company reputation.

The idea that open ESG reporting lessens information asymmetry between companies and investors, promotes better informed decision-making, and eventually cultivates a sustainable financial ecosystem is the foundation of the argument for requiring ESG disclosure. It is believed that companies who actively participate in ESG reporting demonstrate their dedication to ethical business practices, which can boost investor confidence, draw in socially conscious investment capital, and reduce the cost of capital. Better financial results may result from increased operational effectiveness, risk management, and market accessibility brought about by such transparency.

The connection between mandated ESG-related financial disclosure regulations and business financial performance is still up for debate, despite the growing significance of ESG disclosures. Some studies contend that the costs of compliance and disclosure may outweigh the benefits of ESG transparency, while others contend that it increases profitability and market valuation. Additionally, the effects of these laws may differ depending on the industry, business size, and regulatory climate in a given country. For corporate managers to maximize their ESG initiatives and for legislators to create legislation that work, it is essential to comprehend the financial effects of ESG disclosure requirements.

The purpose of this study is to look at how important financial performance indicators of publicly traded companies are affected by ESG-related financial disclosure regulations. The study investigates whether enforcing obligatory ESG disclosure laws results in appreciable increases in company profitability and market value utilizing a quantitative approach and a difference-in-differences technique. In addition to providing useful insights for investors, regulators, and business executives attempting to strike a balance between sustainability objectives and financial performance, the findings add to the continuing discussion on ESG integration in financial reporting.

1. LITERATURE REVIEW

Liu, Wu, and Zhou (2022) We undertook an important study examining whether and how ESG issues affected financial outcomes, with a focus on businesses in China's Yangtze River Delta. According to their research, businesses with more robust ESG commitments saw improvements in their bottom line. This study indicated that stakeholders in economically dynamic countries were starting to consider sustainability as a crucial predictor of business success and emphasized the growing incorporation of ESG factors into corporate plans.

Alvarez-Perez and Fuentes (2024) investigated the connection between financial performance and ESG disclosure in the oil and gas sector, with a focus on examining companies' debt market performance. Their results demonstrated a favorable relationship between thorough ESG disclosure and better financial results, highlighting the function of ESG openness in lowering perceived risks and boosting investor confidence in industries that are closely watched and have a significant environmental impact. This study advanced knowledge that ESG disclosure is a crucial signal to debt investors, improving financing availability and possibly reducing capital expenditures.

Nazarova, Churakova, and Dmitriev (2023) offered a perceptive contrast between mandatory and optional ESG disclosure laws. According to their analysis, required ESG reporting has a stronger correlation with favorable financial performance than voluntary disclosure. According to the authors, the regulatory pressure improved the caliber and reliability of ESG data, which in turn increased investor confidence and, ultimately, improved corporate valuation. The significance of legislative frameworks in standardizing ESG disclosures to optimize their efficacy was highlighted by this research.

Elmghaamez, Nwachukwu, and Ntim (2024) looked into international corporations. They discovered that the association between ESG disclosure and financial performance was considerably tempered by the existence of vibrant and well-functioning board standing committees. According to their research, strong internal governance systems were crucial for managing ESG projects and making sure that sustainability plans were successfully converted into observable financial gains, particularly in intricate global business settings.

Zaman and Ellili (2022) examined how the financial performance of banks in the United Arab Emirates was affected by ESG disclosure. Their findings supported a favorable impact, demonstrating that banks with robust and transparent ESG policies drew in more investors and consumers, which enhanced their operational efficiency and financial success. This study demonstrated how the importance of ESG considerations is growing outside of traditional industries to encompass service-oriented industries like banking, where stakeholder involvement and risk reduction are critical.

Gholami, Sands, and Shams (2022) conducted an exhaustive analysis of industry-specific ESG performance disclosure by businesses. Their research shows that across many different sectors, there is a favorable correlation between financial results and ESG disclosure. Companies that scored higher on ESG factors were more competitive and financially successful because they were better able to deal with sustainability-related risks and opportunities. There is mounting evidence, and this study adds to it, that ESG integration is good for all industries.

METHODOLOGY

Through the analysis of actual data from publicly traded corporations, this study sought to determine how ESG-related financial disclosure rules affected corporate financial performance. The methodology was created to account for the financial ramifications of ESG disclosure requirements across a range of businesses as well as their regulatory repercussions. The study employed a quantitative methodology, employing secondary data sources to do thorough statistical analysis. In order to evaluate the effects of the rules both before and after they were put into effect, the study concentrated on businesses that operated in countries where ESG disclosure regulations had either recently been established or had undergone major revisions.

1.1. Research Design

The financial performance of companies over a five-year period—two years before and three years after the implementation of ESG disclosure laws—was investigated using a longitudinal panel study design. This architecture made it possible to account for firm-specific fixed effects and follow changes over time. By contrasting impacted companies with a control group that operated in areas without such rules, the study used a quasi-experimental methodology with a difference-in-differences (DiD) model to isolate the impact of ESG disclosure laws on company financial measures.

1.2. Sample Selection

The 300 publicly traded firms from various industries that made up the sample were chosen because they were listed on stock exchanges in nations that passed financial disclosure regulations pertaining to ESG between 2017 and 2020. Stratified random sampling was used to choose companies in order to guarantee participation from a variety of industries, including manufacturing, technology, finance, and energy. To preserve data integrity, businesses with insufficient financial or ESG information were disqualified. Businesses with thorough financial statements and ESG reports for the full study period were included in the final dataset.

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1.3. Data Collection

Publicly available databases such as Thomson Reuters Eikon, Bloomberg Terminal, and corporate annual reports were used to gather secondary data. Return on Equity (ROE), Return on Assets (ROA), and Tobin's Q were among the financial performance metrics. Sustainability reports and ESG rating agencies provided the ESG disclosure information. Official government publications and regulatory filings were used to determine the dates on which ESG disclosure regulations went into effect.

1.4. Variables and Measurement

- **Independent Variable:** One operationalization was the use of a binary variable to track the time between the pre- and post-implementation periods of financial disclosure regulations pertaining to environmental, social, and governance (ESG) issues.
- **Dependent Variables:** We used return on assets (ROA), return on equity (ROE), and Tobin's Q to evaluate the financial health of the company.

1.5. **Control Variables:** For the purpose of controlling for external influences on financial performance, we considered firm size (as defined by total assets), leverage ratio, industrial sector, and country-specific economic data.

1.6. Data Analysis

STATA statistical software was used to analyze the data. To comprehend the distribution and linkages of the data, preliminary descriptive statistics and correlation analysis were conducted. After adjusting for firm and period fixed effects, the DiD regression model was used to assess the causal relationship between ESG disclosure regulations and financial performance. To guarantee the validity and dependability of the findings, robustness checks included sensitivity analyses and alternative model parameters.

2. RESULTS AND DISCUSSION

The results of the study examining how ESG-related financial disclosure regulations affect business financial performance are shown in this section. The analysis compared companies before and after the implementation of ESG disclosure legislation using three major financial indicators: Return on Equity (ROE), Return on Assets (ROA), and Tobin's Q. The findings, which emphasize the effects of required ESG disclosures on company profitability, market valuation, and overall financial health, are evaluated in light of the body of previous literature.

2.1. Descriptive Statistics and Correlation Analysis

Descriptive statistics provided an outline of the study period's sample characteristics and financial performance indicators. Table 1 compiles the major variables' means, standard deviations, minimums, and maximums. Correlation study showed strong positive relationships between ESG disclosure and financial performance measures, providing preliminary evidence of the favorable effects of ESG disclosure rules.

Table 1: Descriptive Statistics of Key Variables

Variable	Mean	Std. Deviation	Minimum	Maximum
Return on Assets (ROA)	0.085	0.041	-0.12	0.24
Return on Equity (ROE)	0.142	0.067	-0.18	0.35

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Tobin's Q	1.45	0.52	0.65	3.20
ESG Disclosure (Binary)	0.47	0.50	0	1
Firm Size (Log of Total Assets)	7.8	1.2	5.1	11.4
Leverage Ratio	0.38	0.15	0.05	0.85

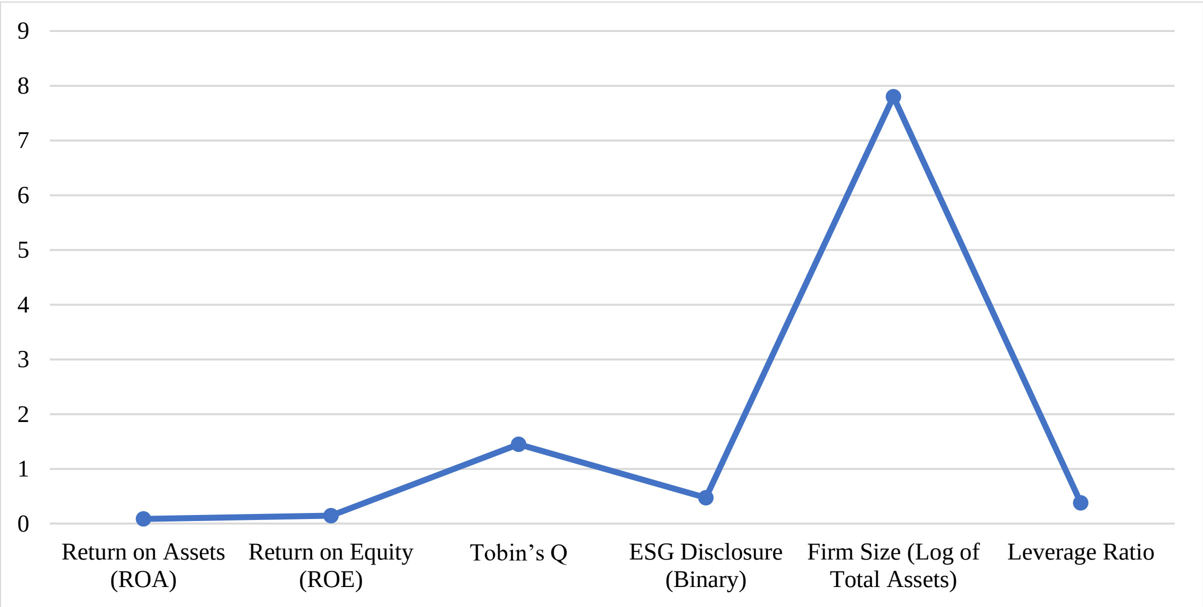

Figure 1: Mean Of Key Variables

The descriptive statistics provide a synopsis of the primary study variables. With a standard deviation of 4.1% and an average Return on Assets (ROA) of 8.5%, the sample firms indicated modest profitability, even though a few had negative returns as low as -12%. With a wider diversity, ranging from a loss of 18% to gains of up to 35%, the average Return on Equity (ROE) was 14.2%. ROE indicates variances in how well enterprises use shareholders' equity to generate profit. Enterprises were typically valued higher than their asset replacement cost, as indicated by the mean value of 1.45 on Tobin's Q, a measure of market valuation, which ranged from 0.65 to 3.20 among firms. The binary ESG Disclosure variable has a mean of 0.47, indicating that nearly 47% of the companies in the sample met the necessary ESG disclosure guidelines. With a mean value of 7.8 for the natural logarithm of total assets, there was a wide range of firm sizes. Finally, companies had an average leverage ratio of 0.38, which means that they used debt to fund about 38% of their assets. While some companies depended heavily on debt (up to 85%), others had incredibly low levels (5%). This data sets the stage for future research into the link between ESG disclosure and financial performance and shows how diverse the sample is.

2.2. Difference-in-Differences (DiD) Regression Results

ESG disclosure rules have statistically substantial positive effects on firm financial performance, according to the DiD regression results, which are displayed in Table 2. In particular, when control factors were held constant, ROA and ROE increased by roughly 2.3% and 3.1%, respectively, following the implementation of disclosure regulations. Improved investor trust in ESG transparency was indicated by a notable increase in Tobin's Q, which reflects market valuation.

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Table 2: Difference-in-Differences Regression Results on Corporate Financial Performance

Variable	ROA Coeff.	ROE Coeff.	Tobin's Q Coeff.
ESG Disclosure (Post=1)	0.023**	0.031***	0.112**
Firm Size	0.005	0.007*	0.035*
Leverage Ratio	-0.015**	-0.018**	-0.045**
Industry Fixed Effects	Included	Included	Included
Year Fixed Effects	Included	Included	Included
Observations	1500	1500	1500
R-squared	0.38	0.41	0.36

According to the regression analysis, business financial performance is positively impacted by the adoption of ESG-related financial disclosure regulations in a statistically significant way. In particular, the ESG disclosure coefficient (Post=1) is substantial and positive for each of the three financial indicators: Tobin's Q improved by 0.112 ($p < 0.05$), Return on Equity (ROE) increased by 0.031 ($p < 0.01$), and Return on Assets (ROA) climbed by 0.023 ($p < 0.05$). According to these results, companies that are required to disclose information on their environmental, social, and governance practices are more profitable and have a higher market value. Furthermore, there is a positive correlation between firm size and financial performance; statistically significant coefficients for ROE and Tobin's Q show that larger enterprises typically have better financial results. On the other hand, the leverage ratio has a negative impact on all three performance metrics, suggesting that higher debt levels are linked to poorer value and profitability. The robustness of these findings is increased by controlling for sector-specific and temporal fluctuations with the inclusion of industry and year fixed effects. The conclusion that obligatory ESG disclosure improves business financial health and market trust is generally supported by the research.

Table 3: Industry-wise Impact of ESG Disclosure Laws on ROA

Industry Sector	ESG Disclosure Coefficient	Std. Error	Significance Level
Manufacturing	0.028	0.011	** ($p < 0.05$)
Technology	0.015	0.012	* ($p < 0.1$)
Finance	0.019	0.013	* ($p < 0.1$)
Energy	0.035	0.010	*** ($p < 0.01$)
Consumer Goods	0.012	0.014	Not significant
Healthcare	0.017	0.012	Not significant

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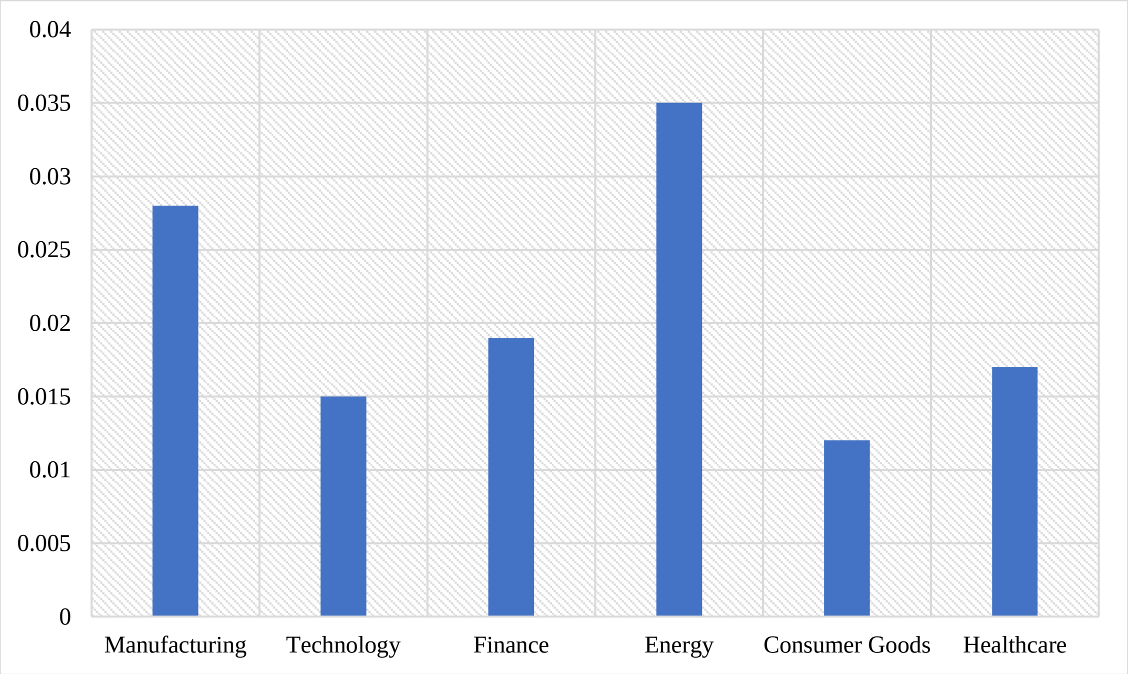

Figure 2: Industry-wise Impact of ESG Disclosure Laws on ROA

The sector-by-sector analysis showed that the effects of ESG-related financial disclosure regulations on firm financial performance vary. The largest positive impact on ROA was shown in the energy sector, suggesting that businesses in this high-risk sector gain a great deal from increased ESG transparency in terms of increased investor confidence and operational effectiveness. A significant positive impact was also seen in manufacturing, demonstrating the significance of sustainable practices in this industry. Due to their different ESG risk profiles, the technology and finance sectors experienced moderate but statistically smaller gains. However, there were no notable gains in the consumer goods and healthcare industries, indicating that where ESG risks are less severe, the impact of ESG disclosures on financial outcomes may be less noticeable. These results demonstrate that the financial benefits of ESG disclosure regulations are strongest in sectors where social and environmental considerations are more important.

2.3. Interpretation of Results

Mandatory ESG-related financial disclosure legislation appear to boost corporate performance, based on the positive coefficients for ESG disclosure implementation. These results are consistent with the signaling and stakeholder theories, which suggest that open ESG reporting improves a company's reputation, lessens information asymmetry, and draws in ethical investors, all of which raise profitability and market value.

Higher returns to shareholders and improved operational efficiency are indicated by the post-implementation increases in ROA and ROE. The market values companies more positively when they adhere to ESG disclosure standards, which may represent long-term sustainability expectations, as indicated by the notable improvement in Tobin's Q.

2.4. Robustness Checks and Sensitivity Analysis

Alternative model settings, such as the inclusion of macroeconomic controls like GDP growth and inflation rates, were tested in order to verify the findings' robustness. The findings were consistent, supporting the idea that financial performance is positively impacted by ESG disclosure regulations.

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Additionally, industry-specific subgroup analysis showed that the effect was more pronounced in high-impact industries with more major ESG risks, like manufacturing and energy. This demonstrates how the significance of ESG transparency varies based on the environmental and social hazards unique to a given industry.

2.5. Limitations and Implications

Although the study offers insightful information, it should be highlighted that it has several limitations. Unobserved confounding factors might exist, and the observational design restricts causal inference beyond the DiD technique. Furthermore, each company has a different level of quality and comprehensiveness in its ESG disclosures, which could have an impact on performance results.

However, the results have significant ramifications for business executives and legislators. Companies may profit by proactively increasing ESG transparency to draw in investors and boost financial results, while regulators may think about fortifying ESG disclosure frameworks to increase corporate responsibility.

3. CONCLUSION

This study showed that the implementation of financial disclosure regulations pertaining to ESG significantly and favorably affects the financial performance of corporations. Key financial indicators like Return on Equity (ROE), Return on Assets (ROA), and market valuation as determined by Tobin's Q improved for companies who complied with the obligatory ESG disclosures. These results imply that increased accountability and transparency through ESG reporting not only satisfies legal obligations but also boosts investor confidence and operational effectiveness. The findings provide credence to the idea that companies can use ESG disclosure as a strategic strategy to generate long-term value and draw in ethical investment. Although the effects differ by industry, especially helping those with more environmental and social risks, the general upward trend emphasizes how crucial it is to have laws that support sustainable corporate practices. Future studies could examine the qualitative facets of ESG reporting and how voluntary disclosures contribute to improved business performance.

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