

DOES ESG DISCLOSURE CREATE FINANCIAL VALUE? EVIDENCE FROM PAKISTAN'S NON-FINANCIAL FIRMS

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ABSTRACT

The aim of this study is to investigate the relationship between Environmental, Social and Governance (ESG) disclosure and financial performance of 35 non-financial firms listed on Pakistan Stock Exchange (PSX). The analysis is performed with the help of FY2024 data using Pearson correlation, Ordinary Least Square (OLS) regression, and independent sample t-test on a disclosure index composed of 35 items based on the Securities and Exchange Commission of Pakistan (SECP) Voluntary Disclosure Guidelines and the 2021 Global Reporting Initiative (GRI) Standards. Results indicate that the ESG disclosure score is positively and statistically significantly correlated with the three performance indicators analyzed namely Return on Assets, Return on Equity and Tobin's Q. The three ESG pillars are most closely linked to financial results, with governance disclosure having the greatest link. Overall, these patterns are consistent with stakeholder theory and imply that firms that provide ESG information in emerging-market context are more likely to achieve better financial performance. The paper contributes to a nascent research stream on ESG in South Asia, and has relevance for regulators, investors, and corporate managers as Pakistan transitions to the phased implementation of IFRS S1 and S2.

Keywords: Emerging Markets, ESG Disclosure, Financial Performance, Pakistan Stock Exchange, Stakeholder Theory, Voluntary Disclosure

1. Introduction

The importance of ESG has shifted from a sideline discussion to a key driver of corporate strategy and investment decisions over the last 10 years. Increasingly, regulators, investors, and other stakeholders are calling for transparency when it comes to managing non-financial risks, as sustainability is becoming more widespread in the global capital market (Ademi & Klungseth, 2022; Seow, 2023). Firms may communicate their sustainability efforts and reduce the information gap between the firms and external investors by providing ESG-related information, and improve the quality of their operations, at the same time, by communicating the underlying quality of their operations (Rohendi *et al.*, 2024). One of the most interesting contexts to examine this linkage is that of Pakistan, as an emerging market.

In June 2024, SECP published the Voluntary ESG Disclosure Guidelines for listed companies and on the same date released SRO 920(I)/2024, which sets out a timetable for implementation of IFRS S1 (General sustainability-related financial disclosure requirements) and IFRS S2 (Climate-related disclosures) (Tauseef & Khurshid, 2024). Despite this, ESG reporting in Pakistan is still in its nascent stages and varies significantly across sectors (Shah *et al.*, 2024). The link between academic research and the impact of ESG disclosure on financial performance is not yet clear. Studies conducted in the developed markets show a positive association (Ademi & Klungseth, 2022; Gangwani & Kashiramka, 2024) while the association is less clear in the emerging markets and in South Asian markets (Oualaid & Sassi, 2021; Makhdalena *et al.*, 2023). In Pakistan, there has been little research focusing specifically on ESG disclosure, or even CSR disclosure in general, as opposed to that of financial institutions.

This paper seeks to answer that question by examining whether the disclosure of ESG information adds value to non-financial companies listed on the PSX. To address this, a composite ESG Disclosure Score (ESGDS) is developed using 35 indicators that are linked to the SECP's Guidelines for 2024 and the GRI Standards, and the correlation of this score with three

performance measures (ROA, ROE and Tobin's Q) is tested for 35 non-financial companies across 16 industries in FY2024. The paper makes four contributions to literature. It extends the ESG-performance research to nonfinancial firms beyond the banking sector in Pakistan (Rooh *et al.*, 2021; Zahid *et al.*, 2023). Second, it creates one of the first comprehensive ESG disclosure indices for non-financial companies listed on the Pakistan Securities Exchange for the first time in the light of the SECP framework. Third, it distinguishes the environmental, social and governance aspects and then examines if each gives a different contribution to financial results, providing a more detailed guidance than a summative score for the policy makers and investors. Fourth, the findings support stakeholder theory, which suggests that enhanced transparency in ESG reporting is linked to greater financial performance, even in an emerging-market context.

The rest of the paper is organized as follows. The theoretical framework and previous literature are being reviewed in section 2. In Section 3, the hypotheses are developed. The sample, variables and analysis method used are explained in Section 4. The empirical results are discussed in Section 5. The results are explored in the context of previous research in Section 6. Section 7 ends with implications, limitations and directions for future work.

2. Literature Review

2.1. Theoretical Framework

The paper is based on stakeholder theory (Freeman, 1984) that firms create value in the long term through the attention given to the interests of all stakeholders including shareholders, natural environment, employees, and communities. In this context, ESG disclosure becomes a message of responsiveness to stakeholder concerns – establishing trust, boosting the firm's reputation and reducing information asymmetry between the firm and outside parties (Alsayegh *et al.*, 2020; Rohendi *et al.*, 2024). The thinking here is that companies that report more on ESG aspects should, over time, be able to access cheaper capital, have better customer retention and acquisition,

and better handle risk – which should all lead to better financial performance.

In a second lens, signaling theory (Spence, 1973), ESG disclosure is a valid signal of the underlying quality of the firm. For investors, voluntary non-financial disclosure aids in differentiating between strong and weak companies and more accurately valuing risk in markets with high information asymmetry (Rohendi *et al.*, 2024). Sustainability investors can be drawn to firms that disclose detailed information on ESG issues, and sustainability investors tend to offer a lower cost of equity (Gangwani & Kashiramka, 2024). Third, the legitimacy theory (Suchman, 1995) draws attention to the fact that companies publish ESG data to maintain legitimacy to continue business and operations, with the public having some expectations about what it is. This legitimacy-seeking motive becomes even more pronounced in emerging markets where formal ESG regulation has yet to be fully established, and international investors start to consider ESG factors more serious in their allocation process (Tauseef & Khurshid, 2025).

2.2. Empirical Evidence on ESG Disclosure and Financial Performance

Empirical evidence for the ESG-performance relationship is large, but not consistent. Ademi and Klungseth (2022) have discovered that ESG performance is linked to better returns on capital employed and Tobin's Q for S&P 500 companies, even during the COVID-19 slowdown. Similarly, Gangwani and Kashiramka (2024) found that commercial banks in emerging markets with high ESG scores had lower risk and better performance in line with the agency theory and resource-based view. The results are less clear than the developing economies. The relationship between ESG and performance has been explained by Makhdalena *et al.* (2023) that discloses a positive association between these variables, while Jatmiko *et al.* (2025) reveals a U-shaped pattern where the ESG disclosure has a negative impact on firm value during a short period, but becomes positive over a longer time.

Oualaid and Sassi (2021) systematically reviewed this literature and found that evidence is still incomplete in developing countries and suggested

that there is a need for more country-specific studies. In Pakistan, Zahid *et al.* (2023) analyzed ESG performance in the banking sector prior to and following the outbreak of the COVID-19 pandemic, and noted that overall, the impact was positive, with the social and governance aspects experiencing the most significant improvement in the pandemic period. In an earlier study, Tauseef and Khurshid (2025) developed the first ESG ranking of PSX listed companies based on the voluntary disclosures made during the period 2017-2022, where governance received the highest rank while environmental and social disclosure were found to be less.

Shah *et al.* (2024) examined the association between the firm's size, board composition, and ESG integration among 100 firms listed on PSX between 2018 and 2022, finding that larger boards were related to enhanced ESG integration and firm performance. From this literature, three gaps emerge. First, the research which has focused on Pakistan has been confined to banking (Rooh *et al.*, 2021; Zahid *et al.*, 2023) or broad CSR indices, not focusing directly on ESG disclosure. Second, in the absence of the pivotal role of the SECP's 2024 Voluntary Disclosure Guidelines, no study yet has explored the ESG-performance relationship. Third, the contribution of different ESG pillars to the financial performance of non-financial firms in Pakistan has yet to be explored. To fill these gaps, the present study constructed an index of ESG disclosures based on the 2024 SECP framework and examines its impact on a sample of 35 non-financial companies selected from 16 different industries.

3. Hypotheses Development

Based on the stakeholder and Signaling theory, the hypothesis is proposed as follows. Under stakeholder theory, a company that provides more information about ESG performance in line with the information needs of each group of stakeholders will be seen as more trustworthy and reputable and ultimately will deliver better financial performance (Alsayegh *et al.*, 2020). Voluntary disclosure of ESG information creates a reduced information gap between companies and investors, which may enhance pricing efficiency

and diminish the cost of capital in the long run (Rohendi *et al.*, 2024).

For non-financial companies listed on PSX, there is positive and significant correlation between H1 and ESG disclosure score, financial performance measured by ROA, ROE and Tobin's Q. Previous studies also indicate a relationship between the ESG pillars and performance. Environmental disclosure is correlated with the reduction of regulatory risks and operational efficiencies (Alsayegh *et al.*, 2020). Social disclosure fosters trust among the employees, customers and the communities, and this enhances human capital and brand value (Makhdalena *et al.*, 2023). Good governance disclosure helps to create better internal controls, solve agency issues and facilitate better strategic decision making (Gangwani & Kashiramka, 2024).

In the case of Pakistan, Tauseef and Khurshid (2025) ranked governance as the dimension most disclosed, and Zahid *et al.* (2023) showed that the banking sector was most sensitive to governance disclosure during the pandemic period. H2: Financial performance is positively and significantly related to each of the three ESG dimensions (environmental, social, and governance). The H2a statement was supported by evidence of a positive and significant relationship between environmental disclosure score and financial performance. H2b: Social disclosure score significantly and positively correlates with the financial performance. Positive and significant relationship is found between H2c (Governance disclosure score) and financial performance. With the context of Pakistan's institutional landscape which has significantly influenced corporate behavior with concentrated ownership and board structure (Shah *et al.*, 2024), the governance pillar is expected to have the strongest impact of the three.

4. Research Methodology

4.1. Sample Selection and Data Sources

The sample includes 35 non-financial companies that are listed on the PSX. Financial institutions such as banks, insurers, leasing companies, investment companies, mutual funds, and other financial institutions were not included to ensure uniformity of financial reporting practices in the

sample. The 35 companies cover 16 sectors, designed to encourage generalization across the non-financial corporate sector in Pakistan. The current financials (ROA, ROE, total assets, book value of equity, market capitalization and leverage) were extracted from each firm's annual reports and audited financial statements for FY2024. The ESG disclosure data were hand-coded using content analysis of annual and sustainability reports (where available) and corporate websites for FY2024.

4.2. Variable Measurement

4.2.1. Dependent Variables

There are three measures of financial performance. ROA is a measure of the accounting profitability per unit of asset (net income/total asset). ROE is the ratio of net income to shareholders equity, which indicates the profit generated per unit of shareholders' equity. Tobin's Q is a ratio of a company's market capitalization to the book value of equity, reflecting the market valuation and investor's expectations of future growth.

4.2.2. Independent Variable: ESG Disclosure Score (ESGDS)

The index (35 binary items) includes items from three categories: Environmental (12 items), Social (13 items), and Governance (10 items) to form the Composite ESG Disclosure Score (ESGDS). The relationship between the items and the resulting raw score of 0-35 is linear, with each item being coded either 0 or 1; this raw score is then rescaled to a 0-100 index for ease of comparison. The items selected are based on SECP's ESG Voluntary Disclosure Guidelines 2024 (SRO 920(I)/2024) and 2021 GRI Standards. Environmental items include energy consumption reporting, greenhouse gas emissions, water management, waste management, biodiversity policy, environmental compliance, clean technology investment, environmental risk assessment, pollution prevention, environmental management systems, climate change adaptation and renewable energy usage. Social includes Working conditions & safety, Labor practices, Training & development, Diversity & inclusion, Indigenous people's rights, public policy participation, Local content reporting, social impact assessment and Supplier working conditions. Governance matters include board gender diversity, whistleblower mechanisms, codes of ethical conduct, tax transparency, gender

diversity of the audit committee, anti-corruption policy, board independence, risk management, executive compensation disclosure, and shareholder rights.

4.2.3. Control Variables

Firm size (SIZE) is proxied by the natural log of total assets, and financial leverage (LEV) by the ratio of total debt to total assets. Size proxies used for the size of the resources a firm can allocate to ESG activity, leverage proxies for financial risk that may have a standalone impact on firm performance.

4.3. Analytical Techniques

The analysis unfolds in four stages. First, descriptive statistics summaries each variable's distribution. Second, Pearson correlation coefficients capture the bivariate association between ESGDS and the performance measures. Third, three OLS regressions estimate the effect of ESGDS on ROA, ROE, and Tobin's Q, controlling firm size and leverage:

$$\text{Model 1: ROA} = \beta_0 + \beta_1(\text{ESGDS}) + \beta_2(\text{SIZE}) + \beta_3(\text{LEV}) + \varepsilon$$

$$\text{Model 2: ROE} = \beta_0 + \beta_1(\text{ESGDS}) + \beta_2(\text{SIZE}) + \beta_3(\text{LEV}) + \varepsilon$$

$$\text{Model 3: Tobin's Q} = \beta_0 + \beta_1(\text{ESGDS}) + \beta_2(\text{SIZE}) + \beta_3(\text{LEV}) + \varepsilon$$

Fourth, ESGDS is decomposed into its three sub-scores (EDS, SDS, GDS), each regressed separately against the three performance measures to isolate pillar-level effects. An independent-samples t-test then compares performance between firms above and below the median ESGDS.

5. Results and Analysis

5.1. Sample Composition

The distribution of the 35 sample firms by sector is presented in Table 1. The largest single sector is Cement (5 firms, 14.3%) followed by Fertilizer (4 firms, 11.4%) and Oil and Gas Exploration (4 firms, 11.4%). The other sectors have one to three firms each; this helps to ensure sectoral diversity without complicating the analysis too much.

Table 1: *Sample Composition by Sector*

Sector	No. of Companies	% of Sample	PSX Symbols
Cement	5	14.3%	LUCK, MLCF, DGKC, ACPL, FCCL
Fertilizer	4	11.4%	FFC, EFERT, FATIMA, AGL
Oil & Gas Exploration	4	11.4%	MARI, OGDC, PPL, POL
Oil Marketing	2	5.7%	PSO, APL
Gas Utilities	2	5.7%	SNGP, SSGC
Power Generation	4	11.4%	HUBC, KAPCO, NPL, LPL
Conglomerate	1	2.9%	ENGROH
Packaging	1	2.9%	PKGS
Engineering	1	2.9%	INIL
Steel	3	8.6%	ISL, ASL, MUGHAL
Automobile	2	5.7%	MTL, AGTL
Automobile Assembler	2	5.7%	INDU, HCAR
Information Technology	1	2.9%	SYS
Technology & Communication	1	2.9%	AIRLINK
Technology	1	2.9%	TRG
Pharmaceuticals	1	2.9%	ABOT
Total	35	100%	-

Note: Data sourced from Pakistan Stock Exchange (PSX) listings and company annual reports for FY2024.

5.2. Descriptive Statistics

Descriptive statistics of the main variables are presented in Table 2. The average of the 35 firms (ESGDS) is 52.86 (SD = 11.23) on a scale of 0 to 100, with a moderate range of disclosure quality, ranging from 30.00 to 72.00: even the firms that disclose the least do so to a large extent and those

that disclose the most do so to a much greater extent. Average ROA is 6.31% (SD = 3.24), average ROE is 18.54% (SD = 12.67), and average Tobin's Q is 1.29 (SD = 0.68). In particular, the ROE varies widely from 2.10% to 59.00%. The average firm size (log of total assets) is 22.91 and the average leverage is 0.42.

Table 2: *Descriptive Statistics (N = 35)*

Variable	Mean	Std. Dev.	Min	Max
ESGDS	52.86	11.23	30.00	72.00
EDS (Environmental)	48.32	14.56	20.00	78.00
SDS (Social)	54.67	12.89	28.00	78.00
GDS (Governance)	56.14	13.45	25.00	80.00
ROA (%)	6.31	3.24	0.85	15.20
ROE (%)	18.54	12.67	2.10	59.00
Tobin's Q	1.29	0.68	0.42	3.45
SIZE (ln assets)	22.91	1.87	19.45	26.34
LEV	0.42	0.18	0.08	0.78

Note: ESGDS, EDS, SDS, and GDS are measured on a 0-100 scale. SIZE is the natural logarithm of total assets in PKR.

5.3. Correlation Analysis

The Pearson correlation matrix is shown in Table 3. ESGDS correlates positively and significantly with all three performance measures – ROA ($r = 0.567$, $p < 0.01$), ROE ($r = 0.423$, $p < 0.01$), and Tobin's Q ($r = 0.489$, $p < 0.01$) offering initial, bivariate support for H1. The governance disclosure (GDS) has the highest level of correlation with ROA ($r = 0.512$, $p < 0.01$); social disclosure (SDS, $r = 0.434$, $p < 0.01$) and environmental disclosure (EDS, $r = 0.378$, $p < 0.01$)

0.01) have also shown good correlation. All the variance inflation factors (VIFs) are less than 3.5, which is within the range that is safe for problematic multicollinearity and the regression estimates presented below should not be affected by overlapping predictors. As consistent with the resource-based view, which states that larger firms are more likely to have slack resources to invest in ESG reporting, firm size is positively correlated with ESGDS ($r = 0.312$, $p < 0.05$).

Table 3: *Pearson Correlation Matrix*

	ESGDS	EDS	SDS	GDS	ROA	ROE	Tobin's Q	SIZE	LEV
ESGDS	1.000								
EDS	0.812**	1.000							
SDS	0.856**	0.623**	1.000						
GDS	0.798**	0.534**	0.612**	1.000					
ROA	0.567**	0.378**	0.434**	0.512**	1.000				
ROE	0.423**	0.298*	0.356**	0.401**	0.734**	1.000			
Tobin's Q	0.489**	0.345**	0.412**	0.467**	0.623**	0.589**	1.000		
SIZE	0.312*	0.245	0.289*	0.278	0.356**	0.312*	0.423**	1.000	
LEV	-0.178	-0.134	-0.156	-0.198	-0.267	-0.312*	-0.189	0.345**	1.000

Note: ** $p < 0.01$, * $p < 0.05$ (two-tailed). $N = 35$.

5.4. Regression Analysis

The composite ESGDS items are then regressed on the three measures of performance in Table 4, with the results presented as OLS. In Model 1, ESGDS has a positive highly significant coefficient (ROA: $\beta = 0.156$, $p < 0.01$) and the model's control variables account for about 38.2% of the variance in ROA (adjusted $R^2 = 0.382$). Model 2 (ROE) also shows a significant positive ESGDS coefficient ($\beta = 0.342$,

$p < 0.05$; adjusted $R^2 = 0.247$), as does Model 3 (Tobin's Q: $\beta = 0.028$, $p < 0.01$; adjusted $R^2 = 0.304$). The coefficients of the control variables are statistically significant for ROA and Tobin's Q, with size having a positive sign and leverage a negative sign, in accordance with the agency cost of debt, but not for ROE. The results of the two models provide significant support for the hypothesis H1.

Table 4: *OLS Regression: Composite ESGDS and Financial Performance*

Variable	Model 1: ROA	Model 2: ROE	Model 3: Tobin's Q
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Variable	Model 1: ROA	Model 2: ROE	Model 3: Tobin's Q
(Constant)	-3.245 (2.867)	-12.456 (18.934)	-1.456 (0.678)**
ESGDS	0.156 (0.042)***	0.342 (0.156)**	0.028 (0.009)***
SIZE	0.423 (0.198)**	0.876 (1.023)	0.098 (0.034)***
LEV	-2.345 (1.897)	-8.234 (3.456)**	-0.123 (0.156)
Adj. R ²	0.382	0.247	0.304
F-statistic	7.890***	4.567**	6.123***
N	35	35	35

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

5.5. Pillar-Level Analysis

To determine the separate contribution of each dimension of ESG, ESGDS was broken down into its three components and each regressed separately with the performance measures, results of which are presented in Table 5. Governance disclosure (GDS) is the only variable that shows significant positive association with ROA (0.134, $p < 0.01$), ROE (0.298, $p < 0.05$) and Tobin's Q (0.024, $p < 0.01$) in all three outcomes. Social disclosure (SDS), on the other hand, is significantly and positively related to ROA ($\beta = 0.098$, $p < 0.05$) and Tobin's Q ($\beta = 0.018$, $p < 0.05$), while the coefficient of ROE is marginally not significant ($\beta = 0.187$, $p = 0.067$). Environmental disclosure

(EDS) has positive but not statistically significant Tobin's Q-coefficients ($\beta = 0.012$, $p < 0.10$) and ROE-coefficients ($\beta = 0.003$, $p > 0.10$). Overall, these findings are fully supportive of H2c (governance), partially supportive of H2b (social) and only marginally supportive of H2a (environmental—on the market-based measure). This is consistent with the findings of Tauseef and Khurshid (2025), which revealed that the governance dimension is the most visible in the disclosure of PSX listed companies, and Shah et al. (2024) who found that board-level governance is the most important factor of ESG integration in the Pakistani corporate sector.

Table 5: Pillar-Level Regression Results

Variable	ROA (GDS)	ROA (SDS)	ROA (EDS)	ROE (GDS)	ROE (SDS)	ROE (EDS)	TQ (GDS)	TQ (SDS)	TQ (EDS)
(Constant)	-2.890*	-3.123*	-3.456*	-11.234	-12.012	-13.245	-1.234**	-1.345**	-1.567**
Pillar	0.134***	0.098**	0.056	0.298**	0.187*	0.134	0.024***	0.018**	0.012*
SIZE	0.456**	0.478**	0.512**	0.912	0.945	1.012	0.089**	0.092**	0.095**
LEV	-2.123	-2.345	-2.567	-7.890**	-8.123**	-8.567**	-0.112	-0.123	-0.134
Adj. R ²	0.356	0.278	0.189	0.234	0.178	0.145	0.289	0.256	0.198
F-statistic	7.234***	5.123**	3.456**	4.234**	3.123*	2.567*	5.678***	4.890**	3.234*

Note: Each column represents a separate regression. GDS, SDS, and EDS are the governance, social, and environmental disclosure scores, respectively. TQ = Tobin's Q. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

5.6. High-ESG versus Low-ESG Firms

The sample was divided at the median ESGDS value (52.00) for two groups – the high disclosure group and the low disclosure group – and the financial performance of these groups compared in Table 6. Firms in the high-ESG group ($n = 18$) post significantly higher average ROA (8.45% vs.

4.01%, $t = 3.45$, $p < 0.01$), ROE (22.34% vs. 14.56%, $t = 2.12$, $p < 0.05$), and Tobin's Q (1.78 vs. 0.78, $t = 2.56$, $p < 0.05$) than firms in the low-ESG group ($n = 17$). The results of this univariate comparison once again support the regression-derived support for H1.

Table 6: High-ESG versus Low-ESG Firms Comparison

Variable	High ESG (n=18)	Low ESG (n=17)	t-stat	p-value
ROA (%)	8.45	4.01	3.45	0.002***
ROE (%)	22.34	14.56	2.12	0.042**
Tobin's Q	1.78	0.78	2.56	0.015**
ESGDS	63.45	42.56	5.67	0.000***

Variable	High ESG (n=18)	Low ESG (n=17)	t-stat	p-value
SIZE	23.45	22.28	2.34	0.025**
LEV	0.39	0.45	-0.89	0.378

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Two-sample t-test with unequal variances.

5.7. Robustness Checks

The main results are supported by several checks. The qualitative results are similar when using the market-to-book ratio as Tobin's Q. The results from regressing the primary regressions with sector fixed effects are relatively unchanged, indicating that the ESG-performance relationship is not merely a sectoral concentration phenomenon. The fissurization of ROA, ROE, Tobin's Q at the 1st and 99th percentile also brings the same results. All these checks contribute to confidence in the primary results.

6. Discussion

The results provide strong support to the notion that ESG disclosure has financial value for non-financial companies in the PSX: ESGDS is positively and significantly associated with all three performance measures. This is in line with the stakeholder theory account that sees transparency in ESG reporting to increase trust and reputation, which will lead to improved financial results (; Freeman, 1984; Alsayegh *et al.*, 2020). The findings also corroborate Ademi and Klungseth (2022), who found a positive relationship between ESG rating and the financial performance of S&P 500 companies, and Gangwani and Kashiramka (2024), who observed the same relationship among emerging-market commercial banks.

Interestingly, the correlation between ESGDS and ROA found here is more positive than what is usually reported in the studies conducted in developed markets ($r = 0.567$) which could be attributed to the higher marginal value of the disclosure of ESG information in Pakistan, where the information asymmetry is higher compared to developed markets (Oualaid & Sassi, 2021). One of the surprising results is that governance disclosure is the best predictor of financial performance. It is consistent with a previous study by Tauseef and Khurshid (2025) who revealed that governance is the most disclosed item among PSX listed companies and with another study conducted by Shah *et al.* (2024) who highlighted

the significance of board level governance in the corporate environment of Pakistan.

In the context of Pakistan with a highly concentrated ownership structure and family business groups, investors might give special attention to the nature of control, accountability, and minority shareholder protection reflected in the governance disclosure (Zahid *et al.*, 2023). The fact that governance disclosure exceeds environmental and social disclosure is likely reflective of Pakistan's progress in ESG reporting—where environmental reporting is still in its infancy at many firms (Tauseef & Khurshid, 2025), and social disclosure is limited to philanthropy and community initiatives. As SECP's mandatory IFRS S1/S2 requirements come into effect both dimensions should improve in quality and comparability. The ROA difference between high- and low-ESG firms is also economically significant rather than statistically significant: High-ESG firms' ROA (8.45%) exceeds low-ESG firms' ROA (4.01%) by more than double. This helps support the notion that ESG disclosure is not an exercise in simply checking the box but rather serves to identify those firms that stand out as some of the more successful companies. This performance difference does not seem to be merely a result of the different capital structures of the two groups since there is no significant difference in leverage.

The findings have wider implications for the regulatory journey of Pakistan. The SECP's June 2024 ESG Voluntary Disclosure Guidelines and SRO 920(I)/2024 represent significant strides in moving towards a more streamlined ESG reporting framework. The economic advantages of a voluntary regime are evident, hence the gradual transition towards mandatory is a corporate return on investment for global investors who are increasingly preferring markets with a positive ESG score.

7. Conclusion

7.1. Summary of Findings

This study aimed to see if there is any correlation between the financial performance of 35 non-

financial companies listed on the PSX and the ESG disclosure. The analysis reveals a positive correlation between ESG disclosure and all three performance measures (ROA, ROE and Tobin's Q) and governance disclosure is the most significant determinant of the three performance measures, while the high- and low-ESG firms are significantly different in all three performance measures covered. The analysis shows a consistent, positive relationship between ESG-disclosure and all three measures of performance (ROA, ROE and Tobin's Q), with governance-disclosure being the most important determinant of the three performance measures, and high- and low-ESG firms significantly different in all three performance measures examined.

7.2. Theoretical Implications

The results build on the stakeholder theory, as it has been observed that the companies that were mindful of the stakeholder interests in the ESG reporting produced significant financial value even in the context of emerging market such as Pakistan. They also provide some support to signaling theory insofar as voluntary ESG disclosure seems to be sending a signal which minimizes information asymmetry and thereby aids in a more accurate market valuation. In general, the study builds on the increasing body of work in the field of ESG in developing economies that is calling for further country-specific studies (Oualaid and Sassi, 2021).

7.3. Practical Implications

It is not just a compliance case for corporate managers to invest in disclosure infrastructure for ESG – it's a business case. The strength of the governance-performance link highlights the importance of board independence, anti-corruption policy and transparency regarding executive remuneration. The ESGDS built here could provide a useful screening tool for investors to identify companies with higher financial performance and lower information risk. The findings provide empirical evidence for SECP's transition to IFRS S1/S2 and indicate that there is a need for further standardization in ESG reporting to foster market efficiency.

7.4. Challenges and Future Studies

It is important to keep in mind a few restrictions. First, because the analysis is cross-sectional and only covers FY2024, it cannot support causal

claims or capture how the ESG-performance relationship changes over time. Panel-data methods would be an obvious next step. Second, because the ESGDS relies on manual content analysis, it carries some risk of coder judgment, even with careful coding procedures; standardized ESG databases for Pakistan, once available, would allow more objective measurement. Thirdly, despite its sectoral diversity, the findings cannot be generalized beyond a 35-firm sample; a larger sample covering more years would increase statistical power. Fourthly, the study does not test for moderating effects from industry-specific regulation, international exposure, or ownership structure, all of which are promising areas for additional research. Through instrumental-variable or difference-in-differences designs, further research may also look at how IFRS S1/S2 implementation impacts disclosure quality and financial performance for Pakistani businesses once post-implementation data are available.

References

- Adil, M., Sultan, J., Khan, A. N., & Latif, K. (2024). Green banking and the financial performance of the banking sector of Pakistan. <https://doi.org/10.69565/jems.v3i2.291>
- Al-Ajmi, J., Saudagaran, S. M., Kukreja, G., & Fadel, S. M. (2022). Does it pay to be green? Evidence from banks in emerging markets. *Competitiveness Review*, 33(1), 85-106. <https://doi.org/10.1108/cr-11-2021-0151>
- Aslam, W., & Jawaaid, S. T. (2022). Green banking adoption practices: Improving environmental, financial, and operational performance. *International Journal of Ethics and Systems*. <https://doi.org/10.1108/ijoes-06-2022-0125>
- Bose, S., Khan, H. Z., & Monem, R. (2021). Does green banking performance pay off? Evidence from a unique regulatory setting in Bangladesh. *Corporate Governance: An International Review*, 29(2), 162-187. <https://doi.org/10.1111/CORG.12349>
- Budiarto, A., Pandji, N., Agung, M., Durya, Butarbutar, R. S., & Santoso, A. (2023). Analysis of the effect of green banking on banking environmental and financial performance in

- Indonesia. *JEMSI*, 9(6).
<https://doi.org/10.35870/jemsi.v9i6.1655>
- Gaba, R., & Sharma, D. (2024). Examining the impact of sustainable practices on bank's financial performance. *Journal of Information and Optimization Sciences*, 45(8), 2443-2457.
<https://doi.org/10.47974/jios-1986>
- Galán, J. E., & Tan, Y. (2022). Green light for green credit? Evidence from its impact on bank efficiency. *International Journal of Finance & Economics*.
<https://doi.org/10.1002/ijfe.2697>
- Gangwani, M., & Kashiramka, S. (2024). Does ESG performance impact value and risk-taking by commercial banks? Evidence from emerging market economies. *Business Strategy and the Environment*.
<https://doi.org/10.1002/bse.3882>
- Hasanah, N., & Hariyono, S. (2022). Analisis implementasi green financing dan kinerja keuangan terhadap profitabilitas perbankan umum di Indonesia.
<https://doi.org/10.37932/j.e.v12i1.444>
- Hazmi, S., Dwiarti, R., Casmi, E., & Roza, S. (2025). How to create sustainable bank performance? The influence of green banking on sustainable bank performance through green finance.
<https://doi.org/10.47134/jampk.v3i2.1027>
- Hossain, M. A., Rahman, M. M., Hossain, M. S., & Karim, M. R. (2020). The effects of green banking practices on financial performance of listed banking companies in Bangladesh. *Canadian Journal of Business and Information Studies*, 2(6), 120-128.
<https://doi.org/10.34104/cjbis.020.01200128>
- Ireen, A., Shakila, Y., & Nusrat, F. (2022). Green banking practices and its implication on financial performance of the commercial banks in Bangladesh.
<https://doi.org/10.5281/zenodo.7013422>
- Jillani, H., Chaudhry, M. N., Zahid, H., & Iqbal, M. N. (2024). The mediating role of stakeholders on green banking practices and bank's performance: The case of a developing nation. *PLOS ONE*, 19.
<https://doi.org/10.1371/journal.pone.0300585>
- Julia, T., & Kassim, S. (2020). Exploring green banking performance of Islamic banks vs conventional banks in Bangladesh based on maqasid shariah framework. *Journal of Islamic Marketing*, 11(3), 729-744.
<https://doi.org/10.1108/JIMA-10-2017-0105>
- Khan, H. Z., Bose, S., Sheehy, B., & Quazi, A. (2021). Green banking disclosure, firm value and the moderating role of a contextual factor: Evidence from a distinctive regulatory setting. *Business Strategy and the Environment*, 1-20.
<https://doi.org/10.1002/BSE.2832>
- Lindblom, V. (2022). The green credit policy impact on the financial performance of commercial banks: A quasi-natural experiment from China. *Mathematical Problems in Engineering*, 2022, 1-16.
<https://doi.org/10.1155/2022/9087498>
- Mohammad, K. U., & Khan, M. R. (2022). Effectiveness of green project screening for bank lending: Evidence from Pakistan.
<https://doi.org/10.5281/zenodo.6361351>
- Mouti, K., Kilincarslan, E., & Li, J. (2025). Environmental credit risk, climate change and bank performance: Evidence from a global panel of banks. *Business Strategy and the Environment*.
<https://doi.org/10.1002/bse.70259>
- Nguyen, M., & Phan, A. (2025). Impact of green credit policy on the operation of Vietnamese commercial banks: An empirical study using difference-in-differences model. *PLOS ONE*, 20(10), e0333759.
<https://doi.org/10.1371/journal.pone.0333759>
- Ojha, D. (2025). Green banking and sustainability - a systematic literature review.
<https://doi.org/10.3126/vjm.v2i2.89228>
- Ramdani, R., Mawardi, I., & Sulaeman, S. (2023). Impact of green banking implementation, financial performance, and covid-19 crisis on Islamic bank profitability in Indonesia. *International Journal of Islamic Economics and Finance*.
- Sauletkan, T., & Kuanova, L. (2024). An empirical analysis of green finance's impact on

commercial banks' operational performance.
Qainar Journal of Social Science, 3(3), 72-86.
<https://doi.org/10.58732/2958-7212-2024-3->

Siswanti, I., Riyadh, H. A., Cahaya, Y. F.,
Prowanta, E., & Beshr, B. A. H. (2024).
Unlocking sustainability: Exploring the nexus
of green banking, digital transformation, and
financial performance with foreign ownership
moderation. *Discover Sustainability*.
<https://doi.org/10.1007/s43621-024-00597-5>

