Physical Education, Health and Social Sciences

https://journal-of-social-ducation.org

E-ISSN: 2958-5996

P-ISSN: 2958-5988

The Impact of CSR Initiatives on Financial Performance in Commercial Banks: An Empirical Examination of Environmental, Social, And Governance (ESG) Drivers

Nida Zehra[1], Dr. Nadeem Juman Shah[2], Dr. Riaz Hussain Shah[1] Rameez Haider Solangi[3]

[1] IBA Jamshoro, University of Sindh
[2] Institute of Commerce & Management, Corresponding Email: syed.nadeem@usindh.edu.pk
[3] The Islamia University Bahawalpur

DOI: https://doi.org/10.63163/jpehss.v3i2.413

Abstract

These type of studies examining (CSR) corporate social responsibility initiative impact on financials' performances within commercialized bank sector; focus specifically on environmentally, sociality, and Governance (E.S.G) drivers. Utilizing mixed-methods approaches, panel data from 147 global banks spanning 2015 to 2024 was analyzed throgh fixed-effects regression and mediation analysis, complemented by qualitative case studies. This findings' reveal the significant positive relationship between CSR engagement and key financial performance indicators such as R.O.A (Return-on-Assets); R.O.E (Return-on-Equity); as well as stocked Pricing Stabilities. Governance's practices emerging as the most influential ESG Component; underscoring the importance of transparent and ethical management. Social responsibility effects enhanced customer loyalty and community trust, while environmental initiatives that authentic integration of ESG factors into business strategy is crucial to realizing financial benefits, while superficial CSR efforts provide limited value. Based on these findings, recommendations included embedding ESG principles into core banking operations, strengthening governance frameworks, expanding social inclusion initiative, and adopting sustainable environmental practices. This research contributes to the growing literature on CSR and financial performance by offering empirical evidences as well as practical-insights to banks, regulators, as well as stakeholders aiming to foster sustainable growth and long-term value creation in the banking sector.

Keywords: CSR, ESG, Financial Performance, Commercial Banks, Sustainability.

Introduction

During the decades, a paradigm within corporations's success have shifted significantly by a sole focus on financial returns into these integrations within broader responsibilities encompassing environmentally, stewardship, socialized equity, as well as governance excellence. This shift has been particularly prominent in the banking sector, where institutions are increasingly recognizing the strategic importance of corporate social responsibility (C.S.R) initiatives embedded within environmentally, socially, and governances (E.S.G) frameworks (Kotsantonis & Serafeim, 2019). Stakeholder relationships, risk's managements, and creationnn of long term values (Freeman,1984; Fernando et al., 2022).

Commercial banks, as pivotal actors in the financial ecosystem, are uniquely positioned to champion sustainability. Through their credit allocation, investment decisions, and risk assessment processes, banks can promote environmentally sustainable projects, support social inclusion, and

uphold robust governance practices (Gallego-Alvarez et al., 2017). This alignment with ESG criteria responds to mounting global pressures—from regulators mandating ESG disclosures to investors prioritizing responsible banking (Cheng et al., 2021; European Banking Authority, 2022).

Although thesee growing are momentums, these empirical relationships among corporate social responsibilities initiative and financials performances remains complex and multifaceted. While some studies suggest that effective ESG integration enhances profitability, reduces risk, and improves market valuation (Khan et at., 2016; Whelan et al., 2021), others caution about potential costs or superficial adoption that may not yield tangible financial benefits (McWilliams & Siegel, 2000; Aggarwal & Dow, 2021). The heterogeneity of CSR activities and these contextual factors inherent in different banking environments complicate definitive conclusions.

The environmental dimension of CSR in banking emphasizes reducing carbon footprints, financing green projects, and mitigating climate-related risks (Fernando et al., 2022). Social responsibiity involves enhaning employee welfare, promoting financial inclussion, and maintaining customer trust (Cornett et al., 2016). Governance entails transparent reporting ethical conduct, and strong board oversight, which collectively fortify institutional integrity (Erkens et al., 2012).

Moreover, extant research has often aggregated ESG into composite indices, potentially obscuring the differential impacts of its environmental, social, and governance components(Nizam et al., 2020). There is also a research gap in incorporating qualitative insights from stakeholders to complement quantitative analyses. Therefore, this study employs a mixed-method approach to disentangle the distinct effects of ESG drivers on key financial indicators== Retrn on Assets (ROA), Return on Eqity (ROE), non-performing loans (NPLs), and stock price volatility – across a diverse globle banking sample.

This research holds significant implications. Understanding how CSR influences financial metrics can inform bank managers, investors, and policy-makers striving to foster sustainable finance. In an era where environmental crises and social inequalities intersect with financial market stabilities, integrating CSR in-to banking strategies may serve as a vital lever for resilient growth and stakeholder trust.

Literature Review

The academic discourse on corporate social responsibilities and financial performance have evolved over the past three decades, drawing from various theoretical frameworks. Stakeholders theories posits that firms attentive to stakeholder interests==beyond shareholders== can achieves sustainable competitive advantage by fostering trust and reputation (Freeman, 1984; Donaldon & Preton. 1995). Complementing this, the Resource based view (RBV) suggests that CSR activities develops intangible assets such as brand equity, employee morale, and social capital, which underpin superior financial outcomes (Barney, 1991, Hart. 1995).

Meta-analytical evidence strongly supports a positive or neutral link between CSR and financial performance. Friede, Busch, and Bassen's (2015) synthesis of over 2,000 studies revealed that approximately 90% reported non-negative associations, with many indicating risk reduction and improved operational efficiency. Similarly, Whelan et al. (2021) aggregated ESG data and demonstrated that firms with higher ESG scores tend to experience lower downside financial risk and more stable earnings.

Focusing on the banking sector, Scholtens (2009) argued that CSR enhances bank reputation and leads to higher quality lending, thus reducing default risk. Nizam et al. (2020) empirically tested CSR-financial performance linkages in Asian banks, finding significant positive effects on both

return on equity and asset quality. These findings align with the concept that banks practicing CSR benefit from stronger stakeholder relationships and enhanced risk management.

Social CSR initiatives in banking encompass financial inclusion, employee welfare, and community engagement. Cornett et al. (2016) revealed that U.S. banks with higher CSR ratings were more resilient during the 2008 financial crisis, attributed to stronger trust from customers and employees. Goss and Roberts (2011) showed that socially responsible banks benefit from reduced credit spreads, implying lower perceived borrower risk and increased lender confidence.

Governance quality constitutes a critical pillar of CSR in banking. Erkens, Hung, and Matos (2012) demonstrated that governance strength influenced banks' ability to navigate the 2007-2008 financial crisis, highlighting the role of transparent and accountable boards. Cheng et al. (2021) further emphasized that governance improvements enhance access to finance and investor trust.

However, the relationship between CSR and financial performance is not uniformly positive. McWilliams and Siegel (2000) cautioned that CSR investments could become financial burdens if misaligned with firm strategy. Aggarwal and Dow (2021) argued that some banks adopt ESG practices primarily as a signaling mechanism to appease stakeholders without meaningful operational changes, resulting in limited performance gains.

These multi-dimensions' natural's (ESG) necessitates disaggregates analyses. That Study's of separate evaluations environmental, socialist as well as governance's factors provided more granular the insights "Nizam et al., 2020; Khan et al., 2016". More-over, integrating of qualitative assessment's within these quantitative data's offering the comprehensive under-standing; how C.S.R. initiatives impact's banks financials "Fernando et al., 2022".

These studies builder up-on preceding researches through utilize a larger global's samples to commercial banks' within the decades, applying fixed-effects panel regression, mediation analysis, and thematic qualitative interviews to the capture these nuanced effects of ESG drivers on financial metrics. These findings aim to the contribute to both of scholarly knowledge and practical the decision-making within sustainable in-to banking sector.

3. Research Objectives and Hypotheses

These primary aim and objectives of the study was into empirically examine this impact of C.S.R (corporate social responsibilities) initiatives on these financial performances among commercial banks. Focusing on these individual roles of an environmental, socialist and governances (E.S.G) factors. These specific objectives are

- To analyze the influence of environmental sustainability on key financial performance indicators.
- To evaluate the effects of social responsibility initiatives on financial inclusion and stability.
- To assess the role of governance quality in enhancing bank profitability and reducing financial risk.
- To investigate the mediating effects of bank characteristics such as leverage, asset tangibility, age, and size on the relationship between ESG and financial outcomes.

Accordingly, the study tests the following hypotheses:

- **H1:** Environmental initiatives have a significant positive effect on Return on Assets (ROA) and Return on Equity (ROE).
- **H2:** Social responsibility efforts positively impact financial inclusion (FI) and reduce Non-Performing Loans (NPL).
- **H3:** Strong governance mechanisms are associated with greater financial stability (FS) and lower stock price volatility.

- **H4:** Bank-specific factors (leverage, tangibility, age, size) mediate the relationship between ESG components and financial performance.

Methodology

Data Collection

This study uses panel data from 147 commercial banks across 42 countries, spanning the years 2015 to 2024. The data on CSR initiatives and ESG scores are obtained from Refinitiv ESG database, which provides annual scores disaggregated into Environmental, Social, and Governance pillars.
Financial data including ROA, ROE, NPL ratios, stock prices, and bank characteristics (leverage, tangibility, age, size) are retrieved from Bloomberg, World Bank's Global Financial Development Database, and banks' annual financial statements.

4.2 Variables Description

Variable	Type	Description
ROA	Dependent	Return on Assets, profitability measure
ROE	Dependent	Return on Equity, profitability measure
NPL Ratio	Dependent	Non-Performing Loans to total loans ratio, risk measure
Stock Price Volatility	Dependent	Standard deviation of daily stock prices over the year, risk measure
Environmental Score	Independent	ESG environmental pillar score (scale 0-100)
Social Score	Independent	ESG social pillar score (scale 0-100)
Governance Score	Independent	ESG governance pillar score (scale 0-100)
Leverage	Control	Debt to Equity ratio
Tangibility	Control	Fixed Assets to Total Assets ratio
Age	Control	Number of years since bank establishment
Size	Control	Natural logarithm of total assets

Model Specification

The following fixed-effects panel regression models are estimated to assess the impact of ESG components on financial performance metrics.

Sample Calculation for Fixed Effects Regression

To illustrate the estimation of Model 1 (ROA), assume a simplified dataset for one bank over 3 years:

Year	ROA (%)	Environmental Score	Social Score	Governance Score	Leverage	Tangibility	Age
2019	1.8	65	70	75	5.2	0.4	25
2020	2.1	68	72	78	5.0	0.42	26
2021	1.9	70	75	80	4.8	0.43	27

Using a statistical software (e.g., Stata or R), we run a fixed-effects regression of ROA on ESG scores and controls, which yields coefficient estimates, e.g.:

- Environmental: 0.015 ($p<0.05$)
- Social: 0.008 ($p>0.1$)
- Governance: 0.020 ($p<0.01$)
- Leverage: -0.05 ($p<0.05$)

- Tangibility: 0.12 ($p<0.01$)
- Age: 0.001 ($p>0.1$)
- Size: 0.03 ($p<0.05$)

Interpretation:

- A 1-point increase in Environmental score is associated with a 0.015% increase in ROA, significant at 5%.
- Governance score has the strongest positive impact on ROA.
- Higher leverage negatively affects profitability.

Mediation Analysis

The study also tests if bank characteristics mediate the ESG–financial performance link. For instance, leverage may reduce or amplify the effect of governance on ROA.

Steps:

1. Regress ESG on mediator (e.g., leverage).
2. Regress financial performance on ESG and mediator.
3. Calculate indirect effect = (Effect of ESG on mediator) × (Effect of mediator on financial performance).

Significance tested using Sobel test or bootstrapping.

Qualitative Data Collection

In addition to quantitative analysis, semi-structured interviews were conducted with 15 senior bank executives and sustainability officers to explore challenges and best practices in CSR implementation.

Interviews were transcribed, coded, and analyzed thematically to complement regression results and provide contextual insights.

Fixed-Effects Model Assumptions

The fixed-effects panel regression assumes:

- **Time-invariant characteristics** of each bank (e.g., culture, management style) are captured by individual fixed effects, controlling for omitted variables that do not change over time.
- The error terms are **uncorrelated with the independent variables** after controlling for fixed effects.
- **No perfect multicollinearity** among predictors.
- The model assumes **homoscedasticity** and **no serial correlation** of errors, though robust standard errors are applied to account for heteroscedasticity and autocorrelation.
- The sample size (147 banks over 10 years) provides sufficient **degrees of freedom** for reliable estimation.

Software Used

The data analysis was performed using:

- **Stata 16** for panel regression and mediation analysis, applying fixed-effects estimation commands (xtreg, fe).
- **R (version 4.2)** with packages like plm for panel data and mediation for mediation testing.
- **NVivo 12** for qualitative interview transcription and thematic coding.

Results

Descriptive Statistics

The panel dataset includes 147 commercial banks observed over 10 years (2015-2024), totaling 1,470 observations. Table 1 presents the descriptive statistics for key variables:

Variable	Mean	Std. Dev.
ROA (%)	1.15	0.55
ROE (%)	11.80	5.90
NPL Ratio (%)	4.25	2.30
Stock Volatility	0.18	0.12
ESG Score (0-100)	65.50	10.25
Environmental	22.10	5.75
Social	21.75	5.60
Governance	21.65	5.50
Leverage (Debt/Equity)	9.2	4.8
Bank Size (Log Assets)	8.5	1.1

Correlation Matrix

Table 2 reports correlations between ESG dimensions and financial performance variables:

Regression Analysis

The fixed-effects panel regression analysis revealed statistically significant relationships between ESG components and various financial performance indicators. Specifically, environmental and

governance scores showed a positive and significant impact on profitability metrics, whereas social scores had mixed effects.

For **Model 1 (ROA)**, the coefficients for Environmental and Governance scores were positive and statistically significant at the 5% and 1% levels, respectively. The R-squared value for this model was 0.42, indicating a moderate explanatory power.

For **Model 2 (ROE)**, Governance again exhibited a strong positive effect ($p < 0.01$), while the Environmental score was marginally significant ($p < 0.10$). The R-squared value stood at 0.39.

In **Model 3 (NPL Ratio)**, Social and Governance scores were associated with a statistically significant reduction in NPLs ($p < 0.05$ and $p < 0.01$, respectively), suggesting improved asset quality. The R-squared value was 0.36.

Model 4 (Stock Price Volatility) showed that higher Governance scores were linked to reduced volatility ($p < 0.05$), reflecting greater financial stability. The R-squared value for this model was 0.31.

Across all models, control variables such as leverage and bank size were also statistically significant, indicating their influence on financial outcomes. The overall findings highlight that governance mechanisms consistently play the most critical role in enhancing financial performance and reducing financial risk.

Mediation Analysis

Using ESG scores as the independent variable, mediation was tested through governance quality impacting ROA.

- The indirect effect of ESG on ROA via governance is significant ($p < 0.01$).
- The direct effect remains significant, indicating partial mediation.

This suggests governance practices partly explain the relationship between overall ESG and profitability.

Conclusion

This study provides empirical evidence that Corporate Social Responsibility (CSR) initiatives, particularly those focused on Environmental, Social, and Governance (ESG) drivers, have a significant and positive impact on the financial performance of commercial banks globally. The quantitative results, based on panel data from 147 banks over 2015-2024, confirm that robust environmental policies and sustainable lending practices contribute to improved Return on Assets (ROA) and Return on Equity (ROE), while reducing the incidence of Non-Performing Loans (NPLs) and stock price volatility.

Among the ESG components, governance quality emerges as the most influential factor, highlighting the critical role of transparency, board independence, and ethical management in achieving financial stability. Social initiatives such as financial inclusion, employee welfare, and community engagement also play an essential role in enhancing customer loyalty and institutional reputation, which indirectly improves financial outcomes. Environmental efforts mitigate climate-related risks and regulatory penalties, aligning banks with global sustainability goals and investor expectations.

Recommendations

Based on the findings, the following recommendations are proposed for banking institutions, policymakers, and stakeholders:

1. **Strategic Integration of ESG:** Banks should embed ESG criteria into their risk management, lending policies, and investment decisions to enhance resilience and create sustainable value.

2. **Strengthening Governance Frameworks:** Improving board independence, enhancing transparency, and instituting robust compliance mechanisms will boost investor confidence and reduce operational risks.
3. **Focus on Social Responsibility:** Expanding financial inclusion initiatives and investing in employee well-being will strengthen social capital and customer loyalty, which are crucial for long-term profitability.
4. **Enhance Environmental Sustainability Efforts:** Banks must adopt measurable green banking practices such as sustainable financing, carbon footprint reduction, and climate risk disclosure to comply with evolving regulations and attract eco-conscious investors.
5. **Regulatory Support and Disclosure Standards:** Regulators should develop clear guidelines and mandatory ESG disclosure requirements to ensure transparency and accountability across the banking sector.
6. **Capacity Building and Training:** Financial institutions should invest in ESG-related training programs for staff and management to ensure effective implementation and continuous improvement of CSR initiatives.
7. **Avoid Greenwashing:** Banks must ensure authenticity in their CSR practices to avoid reputational damage and regulatory penalties associated with false or exaggerated ESG claims.
8. **Continuous Monitoring and Reporting:** Establishing a robust ESG performance measurement and reporting system will help banks track progress and align with stakeholder expectations.

Future Research Directions

This study highlights several avenues for further research, including sector-specific analyses

This study identifies several critical pathways for advancing research on Corporate Social Responsibility(CSR) and Environmental, Social, and Governance (E.S.G) dynamic in the banking sector. First, Sector specific analyses could deepen understanding of how C.S.R impacts way across banking sub-sector(e.g; retails, investments, or Islamic bankings). For instance; exploring how E.S.G initiative influences niche area like green financing, microcredit program, or digitalize banking, eco-systems could reveal sectors specific opportunities and chanllenges. Future study might also investigate the role of regional regulatory-frameworks, cultural-norms, or economic-conditions in moderating the C.S.R to financial performance link, particularly in understudied markets such as Africa and Southeast Asia.

Second, expanding the scope to **non-financial performance indicators** could offer a holistic view of CSR's value. While this study focused on financial metrics, examining CSR's impact on brand equity, employee retention, customer satisfaction, and stakeholder trust could uncover intangible benefits that indirectly drive long-term profitability; Qualitative methodologies; such as ethnographic studies or stakeholder interviews. Could elucidate how C.S.R shapes organizational culture or public perception; additionally; research could assess how banks balance short-term financial pressures with long-term E.S.G commitments, particularly during economic downturns or crises.

Third; longitudinal studies tracking ESG integration over the extended periods.(e.g.. 10-15 years) are essential to understanding its dynamic effects. Such research could analyze how evolving ESG regulations; advancements of technological (e.g.. AI-driven sustainability reporting), or global crises (e.g.. climate disasters or pandemics) reshape the CSR-financial performance relationship.. Investigating lag effects—such as the time required for ESG investments to yield measurable financial returns .. would provide practical insights for strategic planning;

Fourth; comparative studies between developed and emerging markets could uncover contextual nuances; For example, how do divergent regulatory environments (e.g.. stringent EU ESG directives vs flexible Asian frameworks) influence CSR adoption? Similarly, exploring how cultural priorities (e.g.. environmentalism in Scandinavia vs community development in south Asia) shape ESG strategies could inform localized approaches. Cross-market analyses might also assess the role of financial infrastructure, such as stock exchange sustainability indices or green bond markets, in incentivizing CSR engagement.

Finally, emerging themes like digital transformations' intersection with CSR warrant attention. Studies could explore how fintech innovations (e.g block chain for transparent ESG reporting or AI for climate risk modeling) enhance CSR efficacy. Investigating the role of stakeholder activism—such as shareholder propoposals or social media-driven accountability – in driving ESG adoption could also yield noval insights. Interdisciplinary approaches, integrating behavioral economics or network theory, might further unravel the complex mechanisms linking CSR, governance, and financial outcomes..

Within banking, the impact of CSR on non-financial performance indicators such as brand equity, and longitudinal studies to explore the dynamic effects of ESG integration over time.

Additionally, comparative studies between developed and emerging markets could provide deeper insights into contextual factors influencing the CSR-Financial performance relationship.

References

Aggarwal, R., & Dow, S. (2021). ESG investing: Theory, evidence, and practice. Journal of Financial Perspectives, 9(3), 45–60.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management, 17(1), 99–120.

Cheng, B., Ioannou, I., & Serafeim, G. (2021). Corporate social responsibility and access to finance. Strategic Management Journal, 42(1), 33–58.

Cornett, M. M., Erhemjamts, O., & Tehranian, H. (2016). Greed or good deeds: An examination of the relation between corporate social responsibility and the financial performance of U.S. commercial banks around the financial crisis. Journal of Banking & Finance, 70, 137–159.

Erkens, D. H., Hung, M., & Matos, P. (2012). Corporate governance in the 2007–2008 financial crisis: Evidence from financial institutions worldwide. Journal of Corporate Finance, 18(2), 389–411.

Fernando, G. D., Tripathy, A., & Tripathy, N. (2022). Environmental sustainability and bank performance: Evidence from emerging markets. Emerging Markets Review, 50, 100829.

Freeman, R.E. (1984). Strategic Management: A Stakeholder Approach. Boston: Pitman.

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. Journal of Sustainable Finance & Investment, 5(4), 210–233.

Gallego-Álvarez, I., Rodríguez-Domínguez, L., & García-Sánchez, I. M. (2017). The role played by banks in the dissemination of corporate social responsibility practices. Journal of Business Ethics, 142(3), 611–628.

Goss, A., & Roberts, G. S. (2011). The impact of corporate social responsibility on the cost of bank loans. Journal of Banking & Finance, 35(7), 1794–1810.

Khan, M., Serafeim, G., & Yoon, A. (2016). Corporate sustainability: First evidence on materiality. The Accounting Review, 91(6), 1697–1724.

Kotsantonis, S., & Serafeim, G. (2019). Four things no one will tell you about ESG data. Journal of Applied Corporate Finance, 31(2), 50–58.

McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: Correlation or misspecification? Strategic Management Journal, 21(5), 603–609.

Nizam, E., Ng, A., Dewandaru, G., Nagayev, R., & Smolarski, J. (2020). The impact of social and environmental sustainability on financial performance: Evidence from the banking sector. Journal of Cleaner Production, 250, 119491.

Scholtens, B. (2009). Corporate social responsibility in the international banking industry. Journal of Business Ethics, 86(2), 159–175.

Whelan, T., Atz, U., & Van Holt, T. (2021). ESG and financial performance: Uncovering the relationship by aggregating evidence from 1000-plus studies. NYU Stern Center for Sustainable Business.