

-RESEARCH ARTICLE-

CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE AND DUAL CHANNEL FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN SOUTH AFRICA

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—Abstract—

Growing scrutiny of the ways financial institutions engage with stakeholders and disclose their corporate responsibility activities provides the basis for this study. The research investigates whether corporate social responsibility (CSR) disclosure is related to two distinct aspects of bank financial performance, namely accounting-based profitability and market-based performance. Instead of conceptualising the CSR–performance relationship as a unified outcome, the study advances a dual-channel value-creation perspective. From this standpoint, CSR disclosure can contribute to stronger stakeholder relationships and improved internal operating conditions while simultaneously communicating organisational legitimacy to external capital-market participants. This perspective is especially pertinent to South Africa, where integrated reporting practices and stakeholder-centred governance expectations shape the manner in which banks report their social and environmental initiatives. The analysis draws on panel data for South African commercial banks over the 2016–2025 period. CSR disclosure is operationalised through a 32-item index covering community engagement, environmental stewardship, workplace policies, and diversity. Bank financial

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performance is examined through two separate composite measures. The accounting-based profitability index incorporates return on assets, return on equity, and net profit, whereas the market-based performance index consists of stock returns and the price-to-earnings ratio. Factor analysis is employed to construct both indices. Subsequently, panel regression models are estimated to assess the association between CSR disclosure and each dimension of financial performance, while controlling for bank size, leverage, capital intensity, and age. The empirical evidence demonstrates a positive and statistically significant relationship between CSR disclosure and accounting-based profitability. In contrast, the relationship between CSR disclosure and market-based performance remains positive but is comparatively weaker in statistical terms. The findings therefore indicate that the financial benefits associated with CSR disclosure appear to be more strongly connected to internal stakeholder relationships and operational value creation than to short-term investor valuation. By providing a context-specific account of the CSR–performance relationship within South African banking, the study extends understanding of how responsible disclosure can generate value. It further recommends that banks incorporate CSR disclosure into broader stakeholder-oriented value-creation strategies rather than positioning it merely as a symbolic communication practice or a mechanism for enhancing corporate reputation.

Keywords: Corporate Social Responsibility Disclosure; Dual-Channel Performance; Bank Profitability; Stock-Market Performance; South African Banking.

INTRODUCTION

The consequences of major financial disruptions have brought renewed attention to the manner in which financial institutions engage with stakeholders, demonstrate corporate responsibility, and pursue sustainable economic value creation (Wirba, 2024). This concern is particularly pronounced in South Africa, where banks operate under a governance framework that places considerable emphasis on stakeholder participation, integrated reporting, and wider corporate accountability. Accordingly, CSR disclosure extends beyond a voluntary communication practice and represents an important means through which banks demonstrate their responsiveness to social, environmental, and governance expectations. The importance of CSR is further heightened by the country's persistent socio-economic challenges, including inequality, unemployment, and the pursuit of more inclusive economic development (Guang-Wen & Siddik, 2022).

The conceptualisation of CSR remains subject to debate because its interpretation and measurement differ across institutional contexts. Accordingly, this study does not assume that CSR represents a uniform construct with identical economic implications across all settings. Instead, CSR disclosure is viewed as an observable organisational signal through which banks communicate their engagement with important stakeholder groups. The analysis consequently centres on disclosure rather than assuming that disclosed activities necessarily correspond to their underlying social impacts. This

distinction is significant because disclosure may shape stakeholder perceptions, strengthen organisational legitimacy, and improve the availability of information even when the direct financial consequences of specific CSR activities cannot be readily identified. Given the prominence of stakeholder-oriented governance and integrated reporting in South African banking, the disclosure dimension offers an appropriate foundation for assessing the financial implications of CSR communication.

Accordingly, the key empirical issue is not simply whether CSR is related to financial performance, an association that has already been extensively examined in the literature, but whether CSR disclosure exhibits different relationships with the internal and external dimensions of bank performance within the South African institutional environment. Expenditure directed towards community development, environmental stewardship, employee welfare, and diversity may impose immediate financial costs while generating longer-term benefits through enhanced stakeholder trust, corporate reputation, organisational resilience, and customer relationships (Dat et al., 2022). However, when CSR disclosure is regarded as expensive, symbolic, or insufficiently connected to value creation, its potential financial returns may be limited or nonexistent. This competing possibility provides a rationale for examining the CSR–performance nexus through a more differentiated framework rather than reducing the relationship to a straightforward positive or negative association (Dahlin et al., 2020).

The theoretical foundation of the study is stakeholder theory, which proposes that sustainable organisational value depends on effectively managing relationships with the broader set of parties affected by corporate activities rather than concentrating exclusively on shareholders. This perspective is reinforced by legitimacy theory and signalling theory. The former positions disclosure as a means of demonstrating alignment with prevailing societal expectations, whereas the latter emphasises the communication of information that may otherwise remain unobservable to external stakeholders. Collectively, these theoretical perspectives support the proposition that CSR disclosure can fulfil two functions concurrently: strengthening relationships within the organisation’s stakeholder network and transmitting signals to external audiences. Consequently, its financial implications may vary according to the performance channel through which they are assessed.

On this basis, the study examines whether CSR disclosure is associated with two distinct dimensions of financial performance—internal profitability and external stock-market performance—among commercial banks in South Africa. It further interprets potential differences between these relationships through a dual-channel theoretical perspective. The findings are expected to provide practical value for bank managers and boards seeking to incorporate CSR disclosure into value-creation strategies, investors and analysts evaluating the financial significance of CSR information, and policymakers and regulators concerned with the development of CSR and integrated-reporting requirements within the banking sector.

The remainder of the paper is structured as follows. The subsequent section examines the existing literature concerning CSR and financial performance and formulates the study hypotheses. The research methodology is then presented, covering variable operationalisation and model specification. Thereafter, the results section reports the descriptive statistics, factor analysis, and panel regression outcomes, followed by their interpretation in the discussion section. The concluding section summarises the principal findings and discusses the associated implications, limitations, and opportunities for future research.

LITERATURE REVIEW AND CONCEPTUAL DEVELOPMENT

The existing literature provides mixed evidence regarding the relationship between CSR and financial performance, with studies identifying positive, negative, as well as statistically insignificant associations ([Mirza et al., 2025](#)). Such variation indicates that the financial implications of CSR may not follow a universal pattern. Instead, they may be shaped by the manner in which CSR is disclosed, the stakeholder groups influenced by these activities, the institutional environment in which firms operate, and the specific dimension of financial performance under consideration. Addressing this inconsistency, the present study differentiates accounting-based performance from market-based performance and examines CSR disclosure within the stakeholder-oriented institutional context of South African banking. This approach provides a conceptual foundation for explaining variation across performance dimensions instead of assuming that different financial outcomes are equivalent.

One stream of research identifies favourable financial consequences of CSR, suggesting that responsible corporate practices can enhance stakeholder relationships, organisational reputation, employee commitment, customer loyalty, and resilience, ultimately supporting improved financial outcomes ([Agyapong et al., 2024](#); [Bhatt et al., 2023](#)). Nevertheless, an important question remains concerning the point at which these potential benefits become financially observable. Specifically, it is unclear whether the effects are likely to emerge initially through internal profitability or whether they are reflected directly in market valuation. Within the banking sector, improvements in operational effectiveness and stakeholder confidence may influence profitability before investors fully incorporate CSR-related information into stock prices. Accordingly, this study treats the two performance dimensions as separate dependent variables and evaluates each channel independently. Such a distinction extends the conventional question of whether CSR improves performance by examining the specific location within the broader performance structure where the relationship is most pronounced.

Another strand of scholarship identifies weak or statistically insignificant CSR–performance relationships and proposes that the observed association may be contingent upon intervening organisational and institutional conditions ([Zhang & Liu, 2023](#)). This argument is particularly relevant to the present analysis because it

discourages the assumption that a positive empirical coefficient necessarily demonstrates that CSR generates financial value automatically. CSR disclosure may instead function as one component of a wider organisational system encompassing governance mechanisms, stakeholder engagement, risk management, and the flow of information to financial markets. Therefore, the present study interprets its empirical estimates as associations rather than direct causal effects and uses differences between profitability and market performance to formulate a more differentiated theoretical interpretation.

The three broad strands of evidence also exhibit substantial methodological differences in terms of research design, data structure, and estimation techniques, thereby contributing to the research gap addressed by this study. Research documenting positive associations, including [Agyapong et al. \(2024\)](#) and [Bhatt et al. \(2023\)](#), commonly employs single-country or single-industry panel or cross-sectional regression models, frequently combining an aggregate CSR or ESG measure with one financial-performance indicator that is often accounting based. Conversely, studies identifying weak or insignificant relationships, such as [Zhang and Liu \(2023\)](#), more frequently incorporate moderating or intervening mechanisms, employ relatively shorter observation periods, or apply alternative estimation procedures, potentially accounting for differences in their empirical conclusions. Despite these methodological distinctions, both strands generally conceptualise financial performance as a single dependent construct, with studies typically selecting either an accounting-based or market-based measure rather than estimating both dimensions concurrently.

This methodological tendency constitutes a more substantive research gap than geographical context alone. The present study therefore addresses this limitation by distinguishing accounting-based profitability from market-based performance and examining both outcomes separately within a common panel-data framework. By maintaining a consistent empirical design while varying the performance dimension, the analysis provides a more direct basis for determining whether CSR disclosure exhibits different associations across internal profitability and external market valuation.

Evidence on the CSR–Performance Relationship in Banking

The empirical record on CSR and bank performance is substantial but unresolved, and the divergence is instructive for the dual-channel argument advanced here. Studies reporting positive associations typically measure accounting-based returns. [Siueia et al. \(2019\)](#), comparing banks across Sub-Saharan Africa, found CSR disclosure positively related to financial performance, and [Adu \(2022\)](#), drawing on 220 banks in 16 Sub-Saharan African countries over 2007–2018, reported that sustainable banking initiatives improve financial performance where corporate governance mechanisms are effective. [Bonsu et al. \(2024\)](#)

identify green innovation as the channel through which CSR translates into environmental and financial outcomes in emerging markets.

Buallay (2019), examining 235 European banks over a decade, found ESG disclosure related positively to return on assets and return on equity but negatively to Tobin's Q, a split that directly anticipates the dual-channel specification adopted here. Azmi et al. (2021), using international evidence from emerging economies, similarly report that modest levels of ESG activity raise bank value while returns diminish at higher levels. Studies reporting negative or null associations more often use market-based measures, which is precisely the asymmetry the present study seeks to explain. Menicucci and Paolucci (2023), examining 105 Italian banks over 2016–2020, found that ESG policies negatively affect both operational and market performance, while individual dimensions behave inconsistently. Gutiérrez-Ponce and Wibowo (2024) report comparable divergence across Southeast Asian banks, concluding that the relationship is conditional on the regulatory context of each region. Al Hawaj and Buallay (2022), in a worldwide sectorial analysis, found that sustainability reporting improves performance in some sectors while depressing it in banking, a sector-specific result that cautions against generalising from cross-industry evidence.

A third strand locates the mechanism in reputation and risk rather than in revenue. Galletta et al. (2023) show that ESG engagement reduces operational risk by protecting bank reputation, and Adeyemi et al. (2025) link climate-related disclosure to financial stability at system level. Tumewang et al. (2025) find that sustainability committees and external assurance both raise ESG performance in emerging-economy banks, indicating that the governance architecture surrounding disclosure conditions its credibility. Akhter et al. (2023), applying legitimacy theory longitudinally in a developing country, show that environmental disclosure responds to corporate attributes rather than to environmental performance alone, which qualifies any straightforward reading of disclosure as a signal of substantive commitment.

Evidence from the African context is directly pertinent. Adegboye et al. (2020) found that audit committee characteristics shape sustainability performance among Nigerian listed banks, reinforcing the governance conditionality identified above. Saygili et al. (2022) document the same trade-off between sustainability engagement and profitability in an emerging-market exchange, while Adjei-Mensah et al. (2024) review the accounting literature on social outcomes and note that the measurement of social performance remains the principal methodological constraint. Regulatory context further conditions these outcomes, since supervisory expectations determine how far disclosure is treated as credible by capital-market participants (Bruno & Lagasio, 2021). Taken together, these

studies establish that the CSR–performance relationship is neither uniform nor unconditional, and that treating financial performance as a single construct obscures divergent effects operating through internal and external channels.

CORPORATE SOCIAL RESPONSIBILITY IN THE SOUTH AFRICAN CONTEXT

South Africa offers a theoretically relevant context for examining CSR because corporate responsibility operates within a wider framework of governance and national development priorities. Within this environment, banks are expected to support financial inclusion, enterprise development, community investment, and environmental sustainability while simultaneously preserving their commercial viability. Existing research suggests that ESG and CSR practices are becoming increasingly consequential for the financial performance of South African firms ([Chininga et al., 2024](#)). Nevertheless, the institutionalisation of reporting practices may generate a disclosure paradox. As CSR reporting becomes increasingly widespread and expected, the mere presence of disclosure may provide diminishing informational value to investors, whereas sustained engagement with stakeholders may continue to generate effects within the organisation. This distinction provides further justification for analysing accounting-based profitability and market-based performance independently rather than presuming that CSR disclosure produces a uniform financial outcome across both dimensions.

RESEARCH GAP, THEORETICAL CONTRIBUTION AND HYPOTHESES

The research gap extends beyond a straightforward geographical deficiency. Although empirical evidence concerning South African commercial banks remains comparatively limited, geographical underrepresentation alone does not establish sufficient novelty, given that previous CSR–performance research has already encompassed diverse countries, industries, and banking environments. The more substantive gap concerns the limited separation between CSR disclosure as a stakeholder-oriented organisational practice and the distinct financial pathways through which its effects may become visible. Accordingly, this study investigates whether CSR disclosure exhibits comparable associations with internal profitability and market performance, while also determining whether the South African banking context demonstrates a stronger relationship with internal rather than external financial value.

The study advances three principal contributions. First, it extends stakeholder theory by developing a dual-channel explanation of CSR value creation, distinguishing an internal pathway associated with stakeholder relationships and operational outcomes from an external pathway involving investor-oriented information and market valuation. Second, it provides contextual evidence from South African commercial banking, where CSR disclosure is influenced by established stakeholder and governance

expectations rather than being driven solely by discretionary philanthropic activity. Third, it offers empirical differentiation by developing separate composite indicators for accounting-based profitability and market-based performance and evaluating their respective associations with CSR within a common panel-data framework. Thus, the study does not claim methodological innovation as its primary contribution. Instead, its contribution rests on reconceptualising an established empirical relationship through differentiated financial-performance channels while situating the analysis within a specific institutional environment.

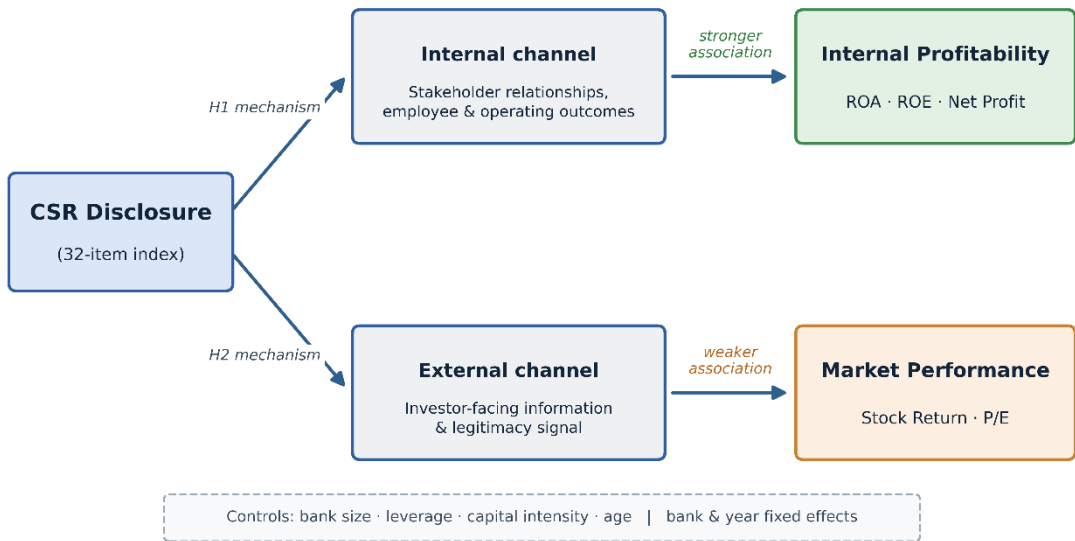


Figure 1 *Conceptual Framework Linking CSR Disclosure to Internal Profitability and External Market Performance through Separate Stakeholder- and Information-Based Mechanisms, Net of Firm-Level Controls and Bank/Year Fixed Effects*

RESEARCH METHODS

The study employs a quantitative longitudinal research design to investigate the association between CSR disclosure and two distinct dimensions of financial performance. Secondary data were collected from annual reports and financial databases covering the 2016–2025 study period. CSR disclosure was assessed using a 32-item index derived from annual reports, while separate accounting- and market-based performance indicators were employed to develop two composite outcome measures. The empirical strategy is intentionally consistent with the study’s theoretical proposition. Rather than estimating a single overall CSR–performance relationship, the analysis is designed to establish whether the association varies between internal profitability and external market performance (Chininga et al., 2024).

The manuscript currently reports 320 bank-year observations and identifies a sample comprising 28 commercial banks. However, a balanced panel containing 28 banks observed across ten years would generate a maximum of 280 bank-year observations. The final manuscript should therefore verify the number of distinct banks included in the analysis, specify the precise observation period, and clearly establish whether the dataset constitutes an unbalanced panel before publication. These details are necessary to ensure methodological transparency and reproducibility and should not be inferred from the information currently provided.

MEASUREMENT OF VARIABLES

CSR disclosure was measured through a systematic content-analysis procedure applied to annual reports. The assessment comprised 32 disclosure criteria distributed across four dimensions: community engagement, environmental stewardship, workplace policies, and diversity. Each criterion received a value of 1 when the relevant information was disclosed and 0 otherwise, after which the CSR disclosure score was calculated as the share of applicable items reported by each bank. Accordingly, the measure reflects the breadth of CSR information communicated publicly rather than the quality of such information or the actual social outcomes generated by CSR activities. This distinction is central to the theoretical positioning of the study because the analysis evaluates whether greater CSR transparency and communication are associated with financial performance, rather than testing whether CSR expenditure or social impact directly produces financial outcomes ([Dat et al., 2022](#)).

Financial performance was operationalised as two theoretically separate constructs. Internal profitability was represented by ROA, ROE, and net profit, whereas market-based performance was captured through stock returns and the price-to-earnings ratio. Factor analysis was subsequently applied to these correlated indicators to derive two composite indices. Firm size, financial leverage, capital intensity, and firm age were incorporated as control variables. This measurement framework preserves the fundamental distinction between accounting and market outcomes and prevents both dimensions from being reduced to a single undifferentiated measure of financial performance. The 32 disclosure criteria were developed from established CSR and ESG reporting frameworks applied in earlier banking-sector research, particularly the Global Reporting Initiative and comparable South African integrated-reporting guidance. The criteria were organised into the four specified dimensions: community engagement, environmental stewardship, workplace policies, and diversity. Each item was assigned equal weight in the overall index, following established practice within the disclosure-index literature. This approach reflects the absence of a theoretically conclusive basis for assigning greater importance to one CSR dimension than another in the context of South African banks. Nevertheless, equal weighting represents a simplifying assumption, and the empirical findings should therefore be interpreted with this consideration in mind.

The content analysis was undertaken independently by two coders using a standardised coding protocol. Ambiguous or partial disclosures were assessed conservatively and recorded as disclosed only when the relevant criterion was substantively addressed rather than merely referenced. Any coding discrepancies were discussed between the coders and, where required, referred to a third reviewer for resolution. The full set of 32 disclosure criteria and the corresponding coding protocol is available on request and will be provided in an appendix in the final manuscript. As previously noted, the index measures the extent to which CSR information is disclosed and does not capture disclosure quality, credibility, or the actual social impact of CSR initiatives. Consequently, a bank with extensive reporting but limited CSR outcomes cannot be distinguished from one with extensive reporting accompanied by substantial outcomes, just as strong CSR outcomes accompanied by limited disclosure would not necessarily produce a high index score. This measurement constraint is addressed further in the discussion and conclusion.

The profitability index incorporates ROA, ROE, and net profit to represent complementary dimensions of accounting performance. Whereas ROA and ROE indicate profitability relative to assets and shareholders' equity, respectively, net profit reflects the absolute amount of earnings generated. Because net profit is measured on a different scale from the two profitability ratios, it was standardised into z-scores before factor analysis to prevent its measurement scale from disproportionately influencing factor extraction. The correlation between ROE and ROA is particularly high ($r = 0.971$, Table 3), which is theoretically expected because both measures incorporate overlapping accounting components, including net income, assets, and equity. Rather than treating this association as evidence of problematic redundancy, factor analysis provides a means of capturing their shared variance, together with net profit, within a common latent profitability construct. The substantial loadings of all three indicators on Factor 1 (Table 4) further support this interpretation.

The market-performance index comprises stock returns and the price-to-earnings ratio, which reflect different but complementary aspects of market assessment. Stock returns represent realised changes in investor returns over the relevant period, whereas the price-to-earnings ratio reflects market valuation relative to current earnings. Despite these conceptual differences, both indicators capture external investors' assessments of a bank's prospects, and their joint loading on a single factor (Table 4) provides empirical justification for modelling them as indicators of one latent market-performance construct. Annual stock returns were derived from year-end closing share prices obtained from the Johannesburg Stock Exchange and relevant financial databases. Where a limited number of share-price observations were unavailable, the corresponding bank-year observations were excluded rather than imputed. Bank-year observations involving negative or economically non-meaningful earnings, for which the price-to-earnings ratio would not provide an informative measure, were similarly classified as missing rather than retained as extreme observations.

The maximum reported P/E value of 572.9 nevertheless indicates the presence of potentially influential extreme observations. Accordingly, the final version should report a sensitivity analysis based on P/E values winsorised at the 1st and 99th percentiles alongside the principal results. This additional analysis will provide a robustness check regarding whether the estimated CSR association is unduly influenced by extreme P/E observations. [Table 1](#) provides a summary of the study variables, comprising two dependent variables—profitability and stock-market return—one independent variable, CSR disclosure, and four control variables, namely size, leverage, capital intensity, and age, with each variable operationalised according to the measurement procedures outlined.

Table 1: Measurement of the Variables

Variable Type	Variable	Indicator	Measurement
Dependent Variables	Profitability (PROF)	ROA, ROE, NP	Composite index derived from factor analysis of return on assets, return on equity and net profit
	Stock Market Return (SMR)	SR, PE	Composite index derived from factor analysis of stock returns and price-to-Earnings ratio
Independent Variable	Corporate Social Responsibility (CSR)	CSR Index	Ratio of items disclosed to total possible items (32); 1 = disclosed, 0 = not disclosed
Control Variables	Firm Size (SIZE)	Total Assets	Natural logarithm of total assets
	Financial Leverage (LEV)	Debt-to-Equity Ratio	Total debt divided by total equity (proxy for risk)
	Capital Intensity (CAP)	Fixed Assets Ratio	Fixed assets divided by total assets
	Firm Age (AGE)	Years in Operation	Number of years establishment

ECONOMETRIC MODELS AND ESTIMATION METHODS

Panel regression techniques were employed to assess the association between CSR disclosure and the two specified performance dimensions while accounting for observable bank characteristics and unobserved heterogeneity across banks and over time. The choice of panel-data methodology is consistent with previous CSR–performance research in banking and related industries that applies comparable model-selection procedures ([Agyapong et al., 2024](#); [George et al., 2023](#); [Khémiri & Alsulami, 2023](#)). Pooled OLS, random-effects, and fixed-effects models were evaluated using the F-test, Breusch–Pagan LM test, and Hausman specification test. For the profitability equation, the Hausman statistic is 367.5 ($p < 0.01$; [Table 6](#)), leading to rejection of the null hypothesis that bank-specific effects are uncorrelated with the explanatory variables. The fixed-effects model is therefore considered the appropriate specification and is reported as the principal profitability model. For the market-performance model, represented by SMR, the final manuscript should provide the Hausman test result, or an

equivalent model-selection test, and explicitly identify the selected specification and its justification because Table 6 does not presently contain a Hausman statistic for this equation.

A series of diagnostic procedures was undertaken to assess heteroscedasticity, serial correlation, and multicollinearity. Where required, standard errors robust to heteroscedasticity and autocorrelation were applied. The econometric procedure is conventional and is not advanced as a methodological contribution. Rather, its role is to provide a consistent empirical assessment of the study's theoretically differentiated performance outcomes. Accordingly, interpretation centres on whether the magnitude and statistical strength of the CSR coefficient vary between the profitability and market-performance equations, rather than regarding statistical significance in isolation as evidence of a universal CSR effect. An additional econometric consideration arises from the possibility of cross-sectional dependence. Because commercial banks operating within the same national financial system are exposed to common macroeconomic and regulatory developments, their regression disturbances may be correlated across entities. Such dependence can lead to biased standard errors even when within-bank heteroscedasticity and serial correlation have been addressed. The final analysis should therefore incorporate a formal cross-sectional-dependence diagnostic, such as the Pesaran CD test. If significant dependence is identified, the models should be re-estimated using an estimator or standard-error procedure capable of accommodating such dependence, including Driscoll–Kraay standard errors. This diagnostic has not yet been incorporated into the reported results and remains an outstanding requirement for completion before publication.

The regression specifications include bank size, leverage, capital intensity, and age as control variables, reflecting their frequent use in research examining bank profitability and CSR–performance relationships (Jigeer & Koroleva, 2023; Yuan et al., 2022). Nevertheless, financial outcomes may also be influenced by factors such as asset quality, liquidity, non-performing loans, capital adequacy, income diversification, macroeconomic conditions—including GDP growth, inflation, and interest rates—as well as ownership arrangements and corporate governance quality. Limitations in data availability prevented the inclusion of the complete set of potentially relevant controls in the current models. Year fixed effects (λ_t) are nevertheless incorporated to capture common macroeconomic and regulatory shocks affecting banks during the same year, thereby reducing, although not eliminating, concerns arising from omitted time-varying factors. The findings should consequently be interpreted in light of the control variables actually included, and this limitation is explicitly recognised in the concluding section.

Potential reverse causality represents a further limitation of the empirical design. Banks with stronger financial performance may possess greater resources to undertake CSR activities and provide more extensive CSR disclosure, meaning that an observed association from CSR disclosure to performance could coexist with a reverse

relationship running from performance to CSR disclosure. Although the panel framework and fixed-effects specification account for unobserved bank-specific and time-specific heterogeneity, they do not independently eliminate this source of endogeneity. In accordance with Reviewer guidance, the empirical findings are therefore interpreted strictly as associations rather than causal effects. Future robustness analysis using lagged CSR disclosure, dynamic panel approaches such as system GMM, or instrumental-variable techniques would provide stronger evidence concerning causal direction. These approaches are consequently identified as priorities for the final version of the study and for subsequent research.

MODEL SPECIFICATION

To investigate the association between CSR disclosure and financial performance, the study applies panel regression techniques that exploit both cross-sectional variation across banks and temporal variation across years. The general specification of the panel regression model is expressed as follows:

$$Y_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 CAP_{it} + \beta_5 AGE_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

Where:

Y_{it} represents the relevant financial-performance dimension of bank i in year t , CSR_{it} represents the CSR disclosure score, $SIZE_{it}$ represents firm size, LEV_{it} represents financial leverage, CAP_{it} represents capital intensity, and AGE_{it} represents firm age. μ_i captures unobserved bank-specific effects, λ_t captures year-specific effects, and ε_{it} is the idiosyncratic error term. Distinguishing the dependent variables is fundamental to the study's conceptual framework as shown in Figure 1 because profitability and market performance reflect separate pathways through which CSR disclosure may generate financial value.

Model 1: CSR and Profitability

$$PROFit = \beta_0 + \beta_1 CSR_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 CAP_{it} + \beta_5 AGE_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

Where:

$PROFit$ = Composite internal profitability index derived from ROA, ROE and net profit.

The corresponding hypothesis is H1: CSR disclosure is positively associated with internal profitability, after controlling for bank size, leverage, capital intensity and age.

Model 2: CSR and Stock Market Returns

$$SMR_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 CAP_{it} + \beta_5 AGE_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

SMRit = Composite external market-performance index derived from stock returns and the price-to-earnings ratio.

The corresponding hypothesis is H2: CSR disclosure is positively associated with market-based financial performance, after controlling for bank size, leverage, capital intensity and age.

RESULTS

Table 2 presents the descriptive statistics of the variables incorporated into the empirical analysis. The findings reveal considerable heterogeneity in accounting-based performance across the observations. ROE records a mean of 23.61 with a standard deviation of 21.43, while ROA has an average value of 0.944. The mean net profit is 4.697. Considerable variation is likewise evident in the market-based indicators, with stock returns averaging 0.652 and the PE ratio reporting a mean of 26.13 alongside a substantially higher standard deviation of 42.91. The observed dispersion across these indicators further supports treating internal profitability and market valuation as distinct performance dimensions rather than assuming that both follow the same pattern.

Table 2: Descriptive Statistics

Variable	Obs	Mean	St. Dev	Minimum	Maximum
ROE	320	23.61	21.43	-42.35	42.67
ROA	320	0.944	0.773	-3.13	2.97
NP	320	4.697	2.95	-5.43	6.274
SR	320	0.652	2.77	-4.7	21.01
PE	320	26.13	42.91	0.01	572.9
CSR	320	0.524	0.289	0.01	0.963
Size	320	7.234	0.616	5.92	8.53
Risk	320	2.442	0.984	0.01	7.57
CAP	320	0.119	0.114	0.012	0.137
AGE	320	83.7	2.85	5.01	234.1

Table 3 further substantiates the distinction between the two dimensions of financial performance. The accounting indicators demonstrate strong interrelationships, with ROE exhibiting very high correlations with ROA ($r = 0.971$) and NP ($r = 0.868$), while the association between ROA and NP is also substantial ($r = 0.815$). By comparison, the correlations linking the accounting indicators with stock returns are comparatively weak. These results suggest that the accounting measures reflect a consistent underlying dimension of internal profitability, whereas market-based indicators represent a distinct aspect of financial performance. Accordingly, the observed correlation structure provides empirical support for conceptualising financial performance through the study's dual-channel framework.

Table 3: Correlation Matrix

Variables	ROE	ROA	NP	SR	PE
ROE	2.00				
ROA	0.971*	1.00			
NP	0.868*	0.815*	1.00		
SR	0.161	0.002	0.004	1.00	
PE	-0.157	0.071	0.058	0.087*	1.00

*Correlation sig ($p < 0.05$)

Table 4 presents the rotated factor structure and confirms the appropriateness of the data for factor analysis. The KMO value of 0.78, together with the statistically significant Bartlett test, demonstrates adequate sampling suitability and meaningful intercorrelations among the variables. The extracted two-factor solution accounts for 83.32% of the overall variance. Factor 1 exhibits strong loadings for ROE (0.855), ROA (0.837), and NP (0.988), whereas Factor 2 is primarily represented by SR (0.833) and PE (0.857). These findings extend beyond a simple statistical reduction of the observed measures by empirically reinforcing the distinction between internal profitability and external market performance. The resulting factors can consequently be viewed as related yet distinct dimensions through which financial value is reflected.

Table 4: Rotated Factors

Variables	Factor 1 (Profitability)	Factor 2 (SMR)
ROE	0.855	-0.191
ROA	0.837	0.152
NP	0.988	0.148
SR	0.143	0.833
PE	0.146	0.857
Eigen Values	3.53	2.19
Percentage of Variance	61.58	32.85
Cumulative % of Variance		83.32
KMO Value = 0.78	Bartlett's test = 685.51	P<0.00

Table 5 reports the factor-score coefficients applied in deriving the two composite dependent variables. The profitability index draws mainly on ROE (0.485), ROA (0.478), and NP (0.459), while the SMR index is largely represented by SR (0.775) and PE (0.797). This pronounced distinction between the component weights further supports assessing the relationship between CSR disclosure and separate financial outcomes instead of relying on a single overall performance indicator.

Table 5: Factor Score Coefficient

Variables	I-Profitability	II-SMR
ROE	0.485	-0.084
ROA	0.478	0.049
NP	0.459	0.045

SR	0.023	0.775
PE	0.025	0.797

Table 6 summarises the panel regression estimates. The results show a positive and statistically significant relationship between CSR disclosure and profitability ($\beta = 0.647$, $p < 0.05$). CSR disclosure is also positively related to the stock-market performance index, although the association reaches only the weaker 10% significance level ($\beta = 0.476$, $p < 0.10$). Accordingly, H1 receives reasonably strong empirical support, whereas the evidence concerning H2 remains suggestive rather than conclusive. The $p < 0.10$ threshold provides weaker statistical evidence than the conventional 5% criterion, and therefore the market-performance result should not be interpreted as equivalent to a conventionally significant finding. The 10% result is nevertheless reported rather than classified simply as non-significant because its positive direction is consistent with the profitability estimate and because the relatively limited number of bank-level panel observations may constrain statistical power. Importantly, this threshold was not established ex ante; its use is therefore recognised as a limitation rather than portrayed as a pre-specified analytical decision. Subject to this qualification, the comparatively stronger profitability result indicates that the financial implications of CSR disclosure may be realised more visibly through internal organisational processes and stakeholder relationships than through short-term market valuation.

Table 6: Regression Results

	Dependent Variables Profitability	SMR
CSR	0.647 (0.14)**	0.476 (0.08)*
Size	5.99 (0.012)	-0.342 (0.24)
Leverage	-0.026 (0.89)	-0.244 (0.13)**
Cap	-91.14 (0.12)***	58.23 (0.28)
Age	-0.584 (0.00)***	-0.115 (0.12)**
Constant	7.473 (0.12)***	2.496 (0.23)
R ²	0.57	0.32
F-Test	9.26**	2.00
LM-test	38.81**	0.49
Hausman Test	367.5**	-
Hetest	9588.8**	3.88.2**
Serial Correlation	0.016	3.978
Collinearity ^{VIF}	8.77	2.33

1. Figures in brackets are robust standard errors (HAC), as reported in the original analysis.
2. The F-test compares pooled OLS with random-effects estimation.
3. The LM test is the Breusch–Pagan Lagrange multiplier test comparing pooled OLS with random effects.
4. The Hausman test evaluates fixed effects against random effects.

5. The heteroscedasticity test assesses whether the error variance is constant across observations.
6. The serial-correlation test assesses autocorrelation in the panel model.
7. VIF is used to assess multicollinearity, not serial correlation.

* $p < 0.10$

** $p < 0.05$

*** $p < 0.01$

The control variables likewise exhibit distinct associations with the two dimensions of financial performance. Bank size is positively related to profitability, whereas leverage shows a negative relationship with SMR. Capital intensity carries a negative coefficient in the profitability specification, while bank age is also negatively associated with profitability. These patterns suggest that the relationship between CSR disclosure and financial performance is embedded within broader structural characteristics of banks rather than occurring independently of them. Diagnostic testing identifies concerns relating to heteroscedasticity and serial correlation; accordingly, robust standard errors are reported to address these issues. Nevertheless, the estimated relationships should be interpreted as associations rather than evidence of causality, as the empirical design cannot establish that changes in CSR disclosure directly produce changes in financial performance. For transparency and reproducibility, all coefficients, standard errors, and test statistics presented in [Table 6](#) should be cross-checked against the underlying statistical output before submission of the final manuscript, with any inconsistencies corrected accordingly.

DISCUSSION

The principal contribution of these findings extends beyond confirming a positive relationship between CSR disclosure and financial performance, as such an association has already been documented extensively in the literature. More importantly, the results reveal a clear difference in the magnitude of the relationship across the two performance dimensions. The estimated association between CSR disclosure and internal profitability is stronger ($\beta = 0.647$) than that observed for market-based performance ($\beta = 0.476$). This pattern is compatible with a dual-channel interpretation of stakeholder theory. CSR disclosure may strengthen stakeholder relationships, organisational reputation, employee commitment, customer trust, and resilience, with these mechanisms potentially translating into improved internal financial outcomes. By contrast, investors may react less strongly because share prices reflect a broad range of information, expectations, and risk factors beyond CSR disclosure.

The South African institutional context further enhances the significance of this distinction. Within a governance system emphasising stakeholder inclusion and integrated reporting, CSR disclosure may constitute a routine component of banks' broader accountability framework. As a result, its incremental informational value for

financial markets may be lower than its potential organisational value. The findings therefore caution against assessing the financial significance of CSR solely in terms of shareholder value creation. Its stronger relevance may emerge through internal stakeholder and operational mechanisms, whereas market consequences may be comparatively modest or materialise only over a longer period. The control-variable results provide further insight into the factors associated with bank performance. The positive relationship between size and profitability may reflect the benefits of economies of scale and greater access to organisational resources enjoyed by larger banks. Conversely, the negative association between leverage and market performance suggests that investors may attach greater importance to financial risk when evaluating highly leveraged institutions. The inverse relationship between age and performance could be indicative of organisational rigidity or other structural disadvantages associated with older institutions; however, this interpretation remains tentative and should not be construed as evidence of a causal mechanism.

The findings should also be considered alongside evidence reporting weak, insignificant, or negative CSR–performance relationships. [Zhang and Liu \(2023\)](#), for instance, demonstrate that the nature of this relationship is strongly conditioned by intervening organisational and institutional factors and therefore cannot be expected to remain consistent across firms. The present evidence reflects this qualification: the relationship between CSR disclosure and market performance is only weakly significant and should not be interpreted as compelling evidence that disclosure directly influences share prices. Likewise, research examining CSR expenditure or actual CSR activities rather than disclosure, such as [Dat et al. \(2022\)](#), has produced weaker or mixed results. This distinction is important because the extent of disclosure does not necessarily correspond to the extent or effectiveness of underlying CSR activities. Accordingly, the association identified in this study relates to the financial relevance of communicated transparency rather than demonstrating the financial consequences of CSR impact itself.

Similarly, studies of African and emerging-market banks that identify positive but undifferentiated CSR–performance relationships ([Agyapong et al., 2024](#); [AlAjmi et al., 2023](#)) provide useful comparative evidence, while the present study extends this literature by demonstrating that the association varies according to the performance channel considered. This differentiation may help explain the inconsistent conclusions reported across previous research. Studies relying exclusively on a single, particularly market-oriented, performance indicator may fail to capture the stronger relationship between CSR disclosure and accounting profitability, whereas research using only accounting-based measures may imply that the financial implications of CSR extend more strongly to investor valuation than the evidence actually supports.

Overall, the findings represent a contextual refinement of the CSR–financial performance relationship rather than support for a universal CSR proposition. The

evidence indicates that CSR disclosure has financial relevance within South African banking, but that relevance is dependent on the channel through which performance is assessed. The study consequently enriches the stakeholder-theory perspective by distinguishing value creation associated with internal stakeholder relationships from valuation by external investors. This distinction is particularly valuable in an established CSR literature, as it redirects attention from simply asking whether CSR is associated with financial performance towards examining how, and with what relative strength, that relationship is manifested across different dimensions of financial value.

CONCLUSION AND IMPLICATIONS

This study investigated the relationship between CSR disclosure and two conceptually distinct dimensions of financial performance—internal profitability and market-based performance—among commercial banks in South Africa. The findings indicate positive associations between CSR disclosure and both dimensions; however, the relationship with profitability is stronger and more robust, whereas the market-performance relationship is weaker and only marginally significant. The results therefore extend beyond the general proposition that CSR is beneficial to financial performance by demonstrating that its financial relevance varies according to the performance channel considered. The study advances a dual-channel perspective of CSR value creation that differentiates internal stakeholder and operational outcomes from external market valuation, embeds this distinction within South Africa's stakeholder-oriented governance context, and provides empirical evidence that accounting-based and market-based indicators should not necessarily be combined into a single financial-performance construct when assessing CSR outcomes. In this respect, the findings are broadly consistent with stakeholder theory while simultaneously qualifying its interpretation: CSR disclosure appears to be more closely associated with internal profitability than with immediate market valuation.

The findings also offer several practical implications. Bank boards and senior management should integrate CSR disclosure into the wider value-creation framework of their institutions by linking CSR initiatives with stakeholder relationships, employee capabilities, customer trust, and operational resilience. The decision-usefulness of CSR reporting could further be enhanced by communicating explicit objectives and measurable outcomes rather than focusing primarily on the volume of disclosure. Given the comparatively weaker relationship with market performance, investors and analysts should regard CSR disclosure as one component of a broader evaluation of bank quality, considered alongside leverage, governance, and operating performance, rather than as an independent predictor of share-price outcomes. This consideration may be particularly relevant for established banks, which should approach CSR as an evolving organisational practice connected to measurable outcomes rather than merely as a static reputational resource. Policymakers and regulators can facilitate these improvements by promoting CSR reporting that is transparent, comparable, and oriented towards

outcomes, thereby increasing the usefulness of disclosed information for both internal managerial decisions and external capital-market assessments.

The conclusions nevertheless require careful qualification. The analysis captures CSR disclosure rather than realised social impact, and the observational panel design cannot establish causal relationships, despite the application of diagnostic procedures and fixed-effects controls. In particular, reverse causality between profitability and CSR disclosure remains possible, while the absence of certain potentially relevant control variables cannot be completely excluded (see Research methods). Future studies should therefore disaggregate CSR into its individual dimensions, incorporate a more comprehensive range of bank-level, market-level, and macroeconomic controls, formally assess cross-sectional dependence, and employ lagged CSR measures, dynamic-panel techniques, or instrumental-variable approaches to strengthen causal identification. Further research could also investigate whether governance quality, financial inclusion, and other institutional characteristics condition or moderate the relationship identified in this study.

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