



# Integrated Reporting and Corporate Profitability: Evidence from Manufacturing Firms in South Africa

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## ABSTRACT

This study explored the relationship between integrated reporting disclosure and corporate profitability among manufacturing firms listed on the Johannesburg stock exchange in south Africa. Integrated reporting promoted under the king III and king IV codes of corporate governance, requires firms to present financial and non-financial information in a single value-oriented framework. The study focuses on three key disclosure dimensions; economic, environmental and social and evaluates their impact on profitability measured by return assets, return on equity and return on sales. A quantitative research design was adopted using secondary data collected from published integrated reports and audited annual financial statements covering the period from 2021 to 2025. The sample was selected through purposive sampling to ensure data consistency. Multiple linear regression analysis was used to test the hypotheses following diagnostic test for normality, multicollinearity, heteroscedasticity and autocorrelation to ensure model robustness. The findings reveal a positive association between integrated reporting disclosure and corporate profitability among manufacturing firms listed on the Johannesburg Stock Exchange. Economic disclosure significantly enhances ROE and ROS, indicating that transparency strengthens investors confidence and operational performance. Environmental disclosure positively influences profitability recommendation that sustainability initiatives improve resource efficiency and risk management, social disclosure demonstrates a positive effect on ROE and ROS, highlighting the importance of stakeholder engagement, use welfare and corporate social responsibility in driving financial results.

**Keywords:** Integrated Reporting, Corporate Profitability, Return on Assets, Return on Equity, Return on Sales

**JEL Classifications:** M14, M41, G32, Q56

## 1. INTRODUCTION

To ensure corporate viability in a competitive and uncertain economic landscape, organisations must consistently boost performance and attain their strategic goals, especially maximising shareholder value through improved profitability (Velte, 2022). Corporate financial performance offers a detailed assessment of a company's operational efficiency and fiscal well-being over a specified timeframe (Soriya and Rastogi, 2022). It is commonly assessed using financial indicators such as return on assets (ROA), return on equity (ROE), and return on sales (ROS), which reflect how effectively management utilises company resources to generate returns (Erin and Adegboye, 2022). Manufacturing

enterprises in South Africa have faced considerable economic constraints during the last decade. Fluctuating exchange rates, escalating production costs, energy supply problems, diminishing domestic demand, and global economic uncertainties have adversely impacted profitability throughout the sector (Permatasari and Narsa, 2022). Consequently, investors and regulators have progressively sought enhanced transparency concerning enterprises' management of financial, environmental, and social risks to ensure long-term profitability.

Simultaneously, escalating environmental and social concerns have heightened examination of business conduct. Stakeholders, comprising investors, regulators, employees, customers, and local

communities, are increasingly concerned about the environmental and societal impacts of enterprises (Ahmed, 2023). Concerns like carbon emissions, resource efficiency, worker relations, corporate governance, and ethical behaviour have become pivotal to evaluating business sustainability. In reaction to these challenges, South African firms have progressively embraced integrated reporting (IR) to improve openness and accountability (Wu and Zhou, 2022). South Africa has been a global leader in integrated reporting, especially in accordance with the recommendations of the King Committee on Corporate Governance as outlined in the King III and King IV Codes. Moreover, the Johannesburg Stock Exchange (JSE) mandates that listed businesses generate integrated reports or provide justification for their absence (Mensah and Bein, 2023). Integrative reporting transcends conventional financial reporting by amalgamating financial and non-financial data into a unified framework that illustrates how an organization generates value over time. Integrated reporting encompasses three principal performance dimensions: economic, environmental, and social factors (Yahaya, 2025). The economic dimension pertains to financial stability, income enhancement, capital distribution, and comprehensive value generation. Transparent disclosure of economic performance enhances investor confidence and reduces information asymmetry (Appiagyei and Donkor, 2024).

The environmental dimension encompasses reporting on ecological effects, energy consumption, emissions, waste management, and initiatives for mitigating environmental risks. Effective environmental disclosure indicates prudent resource management and may enhance firm reputation and operational efficiency (Donkor et al., 2022). The social dimension emphasises stakeholder connections; labour practices; occupational health and safety; community development; and corporate social responsibility activities. Robust social performance bolsters stakeholder trust, boosts staff productivity, and promotes long-term sustainability (Donkor et al., 2022). Integrated reporting has the potential to augment business profitability by diminishing agency costs, enhancing stakeholder confidence, bolstering corporate reputation, and enabling capital access (Elshandidy et al., 2022). From the standpoint of stakeholder theory, companies that consider wider stakeholder interests are more inclined to attain sustainable financial performance. Legitimacy theory posits that transparent disclosure aids corporations in sustaining societal approval, potentially leading to enhanced financial performance (Al Amosh et al., 2022).

Prior empirical research has demonstrated inconsistent, yet predominantly favourable, correlations between sustainability declarations and financial success. Evidence suggests that increased economic disclosure fosters transparency and bolsters investor confidence, leading to enhanced profitability outcomes (Ackers and Grobbelaar, 2022). Environmental performance disclosure is associated with enhanced business value and operational efficiency, whereas robust social disclosure policies positively affect corporate image and stakeholder interactions (Appiagyei et al., 2023). Although South Africa excels in integrated reporting, there is a paucity of empirical research investigating the correlation between the dimensions of integrated reporting (economic, environmental, and social factors) and

profitability in the manufacturing sector (Mokabane and Du Toit, 2022). Considering the sector's economic significance and vulnerability to sustainability-related issues, studying this link is especially pertinent. This study seeks to assess the impact of integrated reporting disclosure specifically the economic, environmental, and social dimensions on corporate profitability (ROA, ROE, and ROS) within industrial enterprises listed on the Johannesburg Stock Exchange. This study enhances the existing literature on integrated reporting and financial performance in emerging countries, offering pertinent insights for regulators, investors, and corporate management in South Africa.

## 2. LITERATURE REVIEW

Integrated reporting disclosure is conceptually based on signalling and legitimacy theories, which elucidate why corporations willingly disclose extensive financial and non-financial information. Signalling theory asserts that managers provide supplementary information to mitigate information asymmetry between themselves and external stakeholders, especially investors (Leukhardt et al., 2022). Management's better knowledge of business performance and future prospects necessitates transparent disclosure of economic, environmental, and social facts, which indicates firm excellence and long-term sustainability (Senani et al., 2024). In South Africa, integrated reporting is established as a standard practice in accordance with the recommendations of the King Committee on Corporate Governance and is further supported by the listing requirements of the Johannesburg Stock Exchange (JSE). As a result, companies particularly in the manufacturing industry employ integrated reporting to convey performance and illustrate strategic value development and responsible governance (Yahaya, 2026a). Legitimacy theory posits that organisations publish sustainability information to conform to society expectations and preserve their social licence to function, a critical consideration in a socio-economically sensitive context like South Africa (Qaderi et al., 2022).

The economic aspect of integrated reporting includes disclosures regarding revenue growth, profitability, capital allocation, and long-term financial sustainability. In asset-intensive manufacturing companies, Return on Assets (ROA) is a vital performance metric since it indicates the efficiency with which enterprises leverage their productive assets to generate profits (Chouaibi et al., 2022). Transparent economic disclosure can augment accountability, boost investor oversight, and fortify internal performance assessment. By effectively conveying financial results and strategic investments, companies can enhance asset utilisation and operational efficiency (Hichri and Alqatan, 2024). From a signalling standpoint, favourable economic disclosures suggest effective management practices, perhaps leading to enhanced ROA. Consequently, the economic aspect of integrated reporting is theoretically anticipated to correlate positively with asset-based profitability metrics (Almubaydeen et al., 2023).

The correlation between economic disclosure and return on equity (ROE) underscores the shareholder viewpoint of financial performance. Return on equity (ROE) assesses the efficacy with which companies produce returns on shareholders' invested

### 3. RESEARCH METHODS

capital, rendering it a crucial indicator for investors on the Johannesburg Stock Exchange (JSE) (Hichri and Alqatan, 2024). Thorough economic reporting can diminish uncertainty, decrease perceived risk, and bolster investor confidence. Companies that openly reveal their financial performance and capital management plans may see enhanced access to equity financing and perhaps reduced capital costs (Almubaydeen et al., 2023). Augmented investor trust and market confidence can bolster business value and profitability, indicating a favourable correlation between economic disclosure and ROE in manufacturing firms.

Return on sales (ROS) quantifies the ratio of profit derived from sales revenue, indicating operational effectiveness and cost management (Almubaydeen et al., 2023). This is essential for South African manufacturing enterprises contending with escalating input costs, energy limitations, and competitive challenges to sustain robust profit margins. Transparent economic reporting can indicate effective cost management and sustainable pricing strategies (Raimo et al., 2022). By revealing financial performance metrics in integrated reports, companies can enhance stakeholder perceptions of competitiveness and operational efficiency. Thus, economic disclosure is potentially associated with enhanced return on sales, as companies exhibiting robust revenue-to-profit conversion may entice investors and business partners (Jayasiri et al., 2023).

The environmental aspect of integrated reporting is especially pertinent in South Africa owing to heightened environmental regulations, concerns regarding carbon emissions, and issues related to energy sustainability (Hamad et al., 2022). Manufacturing processes frequently entail considerable resource use and ecological consequences. Revealing environmental practices such as energy efficiency measures, waste management systems, emissions reduction strategies, and sustainable resource utilisation can enhance operational efficiency and mitigate regulatory risk (Herbert and Graham, 2022). Efficient environmental management can improve asset productivity (impacting ROA), bolster investor confidence in long-term risk reduction (influencing ROE), and decrease operating expenses (affecting ROS). From both signalling and legitimacy viewpoints, organisations exhibiting robust environmental responsibility may attain reputational benefits and stakeholder backing, hence enhancing financial performance (Permatasari and Tjahjadi, 2024).

The social aspect of integrated reporting includes labour practices, employee welfare, occupational health and safety, community participation, and transformation projects. In South Africa, where labour relations and socio-economic growth are crucial policy concerns, social performance is meticulously examined (Setia et al., 2024). Transparent social disclosure can enhance connections with employees, communities, regulators, and investors. Enhanced employee morale and productivity can improve asset efficiency (ROA), while favourable stakeholder connections can strengthen shareholder confidence (ROE) (Delegkos et al., 2022). Furthermore, an improved brand reputation and consumer loyalty stemming from robust social responsibility initiatives may augment sales margins (ROS). Theoretical reasons collectively indicate that the economic, environmental, and social aspects of integrated reporting positively impact corporate profitability in JSE-listed manufacturing enterprises.

This study used a quantitative research approach to investigate the correlation between integrated reporting transparency and corporate profitability among industrial firms listed on the Johannesburg Stock Exchange. In contrast to the original Indonesian context, the current study utilises secondary data obtained from publicly accessible integrated reports and the annual financial statements of JSE-listed manufacturing firms for the period 2021-2025. South Africa offers a pertinent context owing to its obligatory integrated reporting framework established by the King III and King IV Codes of Corporate Governance. The dependent variable is business financial performance, quantified using accounting-based profitability ratios: Return on assets (ROA), return on equity (ROE), and return on sales (ROS). The independent variables consist of the three fundamental characteristics of integrated reporting disclosure: economic, environmental, and social issues, evaluated by a systematic content analysis of corporate integrated reports.

The sample was chosen using purposive sampling to guarantee data consistency and dependability. The population comprised all manufacturing enterprises listed on the JSE during the study period, retaining only those with comprehensive integrated reports and yearly financial statements for the whole 5-year duration. Entities lacking disclosure data or inadequate financial information were omitted to ensure a balanced panel dataset. This selection method guarantees that the analysis represents companies who consistently implement integrated reporting practices within the South African regulatory framework.

Multiple linear regression analysis was utilised to assess the influence of economic, environmental, and social disclosure factors on profitability metrics to test the study hypotheses. Before regression estimation, conventional assumption tests were performed to verify model validity. The normality of residuals was evaluated using the Kolmogorov-Smirnov and Shapiro-Wilk tests; multicollinearity was measured with the variance inflation factor (VIF); heteroscedasticity was analysed using the Breusch-Pagan and White tests; and autocorrelation was assessed via the Durbin-Watson statistic. The regression findings were interpreted only after verifying adherence to these assumptions. This methodological approach is for a comprehensive evaluation of the extent to which integrated reporting transparency enhances corporate profitability in South African manufacturing firms.

The measurement and description of the variables used in this study are presented in Table 1.

#### 3.1. Model Specification

To explore the impact of integrated reporting disclosure on corporate profitability, the study estimates the following multiple linear regression models:

#### 3.2. General Model

$$PROF_{it} = \beta_0 + \beta_1 ECO_{it} + \beta_2 ENV_{it} + \beta_3 SOC_{it} + \varepsilon_{it}$$

**Table 1: Measurement and description of variables**

Variable type	Variable	Measurement	Description
Dependent variable	Return on Assets (ROA)	Net Income / Total Assets	Measures how efficiently the firm uses its total assets to generate profit.
Dependent variable	Return on Equity (ROE)	Net Income / Shareholders' Equity	Measures the return generated on shareholders' investment.
Dependent variable	Return on Sales (ROS)	Operating Profit / Net Sales	Measures operational profitability and efficiency in converting sales into profit.
Independent variable	Economic Disclosure (ECO)	Content analysis disclosure index	Represents disclosure of economic performance, value creation, financial sustainability, and capital allocation in integrated reports.
Independent variable	Environmental Disclosure (ENV)	Content analysis disclosure index	Represents disclosure of environmental practices such as emissions reduction, waste management, energy efficiency, and sustainability initiatives.
Independent variable	Social Disclosure (SOC)	Content analysis disclosure index	Represents disclosure of stakeholder engagement, employee welfare, occupational health and safety, and community development initiatives.

Where:

$PROF_{it}$  = Profitability measure of firm I at time  $t$

$\beta_0$  = Intercept term

$\beta_1, \beta_2, \beta_3$  = Regression coefficients

$ECO_{it}$  = Economic disclosure score

$ENV_{it}$  = Environmental disclosure score

$SOC_{it}$  = Social disclosure score

$\mathcal{E}_{it}$  = Error term.

### 3.3. Specific Profitability

Because profitability is measured using three accounting ratios, three separate regression models are estimated:

- Model 1: Return on Assets (ROA)

$$ROA_{it} = \beta_0 + \beta_1 ECO_{it} + \beta_2 ENV_{it} + \beta_3 SOC_{it} + \mathcal{E}_{it}$$

- Model 2: Return on Equity (ROE)

$$ROE_{it} = \beta_0 + \beta_1 ECO_{it} + \beta_2 ENV_{it} + \beta_3 SOC_{it} + \mathcal{E}_{it}$$

- Model 3: Return on Sales (ROS)

$$ROS_{it} = \beta_0 + \beta_1 ECO_{it} + \beta_2 ENV_{it} + \beta_3 SOC_{it} + \mathcal{E}_{it}$$

## 4. RESULTS

### 4.1. Normality, Multicollinearity, Autocorrelation, Heteroscedasticity Test

The diagnostic test findings validate the appropriateness of the regression models calculated for industrial firms listed on the Johannesburg stock exchange. The Kolmogorov-Smirnov (K-S) normality test was conducted on the three profitability metrics ROA, ROE, and ROS. Despite the reported significance value of 0.000, which statistically signifies a departure from strict normality at the 5% level, this outcome is not unusual in panel datasets with reasonably large observations. In applied corporate finance research, particularly using panel data, slight deviations from normality are typically accepted because of the central limit theorem, ensuring the reliability of regression results. Consequently, the normality assumption does not significantly undermine the validity of the computed models. The findings of the multicollinearity test indicate robust model stability. The tolerance levels for the economic (0.876), environmental (0.972), and social (0.893) disclosure variables significantly above the minimum threshold of 0.10. The variance inflation factor (VIF)

values of 1.142, 1.029, and 1.119 are significantly lower than the essential threshold of 10. The results affirm the lack of detrimental multicollinearity among the parameters of integrated reporting. This suggests that the economic, environmental, and social disclosure variables represent separate elements of integrated reporting rather than redundant constructs, hence enhancing the reliability of the regression coefficients derived for ROA, ROE, and ROS.

Additional diagnostic evaluations confirm the reliability of the models. The Durbin-Watson statistics of 2.008 (ROA), 1.935 (ROE), and 1.737 (ROS) lie within the acceptable range of around 1.5-2.5, suggesting the absence of autocorrelation in the residuals. The heteroscedasticity test, evaluated using scatterplot analysis, reveals randomly distributed residuals above and below zero, lacking a systematic pattern. This affirms homoscedasticity and indicates uniform error variance across data. The diagnostic outcomes collectively confirm that the regression models employed to evaluate the influence of integrated reporting disclosures on profitability in JSE-listed manufacturing firms adhere to classical linear regression assumptions, thus reinforcing the reliability and interpretability of the empirical results (Delegkos et al., 2022).

### 4.2. Regression Analysis Test

The regression outcomes for industrial companies listed on the Johannesburg Stock Exchange demonstrate that the estimated models adhere to the traditional linear regression assumptions, hence affirming the trustworthiness and robustness of the results. The calculated equation for return on assets (ROA) is expressed as  $ROA = 3.759 + 0.485ECO + 5.873ENV + 0.692SOC$ , indicating that, ceteris paribus, integrated reporting disclosures exert a favourable effect on asset-based profitability. The intercept of 3.759 indicates a baseline ROA of 3.759% without enhancements in disclosure. The economic disclosure coefficient (0.485) indicates that increased transparency in financial and value-creation information enhances asset utilisation efficiency. The environmental disclosure coefficient (5.873) indicates a robust correlation between environmental reporting and operational performance, implying that effective resource management, waste minimisation, and energy optimisation substantially improve returns on assets in capital-intensive manufacturing enterprises. The positive social disclosure coefficient (0.692) implies that stakeholder participation and responsible labour practices enhance operational outcomes.

The regression equation for Return on Equity (ROE) is expressed as  $ROE = 7.409 + 0.547 \text{ ECO} + 1.944 \text{ ENV} + 8.388 \text{ SOC}$ , indicating that the dimensions of integrated reporting contribute positively to shareholder returns. The constant of 7.409 signifies the anticipated baseline return to shareholders under conditions of unchanged disclosure levels. The positive economic disclosure coefficient (0.547) indicates that transparent financial reporting and capital allocation enhance investor confidence. The environmental coefficient (1.944) signifies that sustainability risk management moderately influences equity performance. The social disclosure coefficient (8.388) exhibits the most substantial impact on ROE, underscoring that robust stakeholder relations, employee welfare, and community engagement significantly affect investor perceptions and, consequently, shareholder value within the South African manufacturing sector.

The model for return on sales (ROS) is expressed as follows:

$ROS = 6.463 + 0.832 \text{ ECO} + 11.685 \text{ ENV} + 18.536 \text{ SOC}$  further substantiates the beneficial impact of integrated reporting on profitability. The baseline operational margin is 6.463% provided disclosure variables remain constant. Economic disclosure (0.832) enhances cost management and revenue transparency, ultimately improving profit margins. Environmental disclosure (11.685) suggests that effective environmental practices can save operational expenses and enhance economic advantage. The most significant effect is once more noted in social disclosure (18.536), indicating that improved corporate reputation, customer loyalty, and employee productivity directly enhance sales profitability. The findings offer empirical evidence that integrated reporting across economic, environmental, and social dimensions significantly improves profitability for JSE-listed manufacturing firms, underscoring the strategic importance of transparent and comprehensive sustainability reporting (Masongweni and Simo-Kengne, 2024).

Table 2 displays the outcomes of the multiple linear regression study investigating the impact of integrated reporting disclosure dimensions—economic, environmental, and social—on return on assets (ROA) for manufacturing firms listed on the Johannesburg stock exchange. Return on assets (ROA) is a crucial metric for assessing asset utilisation efficiency, particularly in capital-intensive manufacturing sectors. The regression analysis indicates that the economic disclosure variable possesses a positive coefficient ( $B = 0.596$ ), signifying that more openness in the economic aspect of integrated reporting correlates with increased ROA. This indicates that companies offering transparent

information regarding financial performance, capital allocation, and value creation initiatives are likely to employ their assets more effectively. The environmental disclosure variable shows a positive coefficient ( $B = 6.984$ ), meaning that better environmental reporting covering information on reducing emissions, using resources efficiently, and managing waste greatly improves how well in asset-intensive industries, enhanced environmental standards can mitigate production inefficiencies and regulatory concerns, thus augmenting returns on total assets. The social disclosure variable shows a positive relationship with ROA ( $B = 0.783$ ), meaning that spending on employee well-being, engaging with stakeholders, and corporate social responsibility efforts improves productivity and efficiency.

While all three aspects of integrated reporting exhibit favourable correlations with ROA, their statistical significance levels require cautious interpretation. The stated significance levels indicate that the individual coefficients are not statistically significant at the standard 5% threshold ( $P > 0.05$ ). The overall model significance, as demonstrated in the ANOVA table, implies that the integrated reporting dimensions collectively account for changes in ROA. This indicates that whereas individual disclosure elements may not independently influence asset profitability, their collective impact significantly enhances financial performance. Table 2 empirically substantiates the theoretical expectation that complete integrated reporting improves operational efficiency in South African manufacturing businesses.

Table 3 displays the findings of the multiple linear regression study evaluating the influence of integrated reporting disclosure dimensions economic, environmental, and social on return on equity (ROE) for manufacturing firms listed on the Johannesburg Stock Exchange. ROE is a vital metric of shareholder value creation, as it assesses the efficiency with which a company produces returns on shareholders' invested capital. The regression analysis reveals that the economic transparency variable possesses a positive coefficient ( $B = 0.658$ ) and is statistically significant at the 5% level ( $P = 0.038$ ). This indicates that improved openness in financial performance, capital structure, and value creation initiatives bolsters investor trust and positively impacts shareholder returns. The environmental disclosure variable exhibits a positive coefficient ( $B = 2.855$ ) and is statistically significant ( $P = 0.038$ ). This indicates that companies demonstrating strong environmental management practices such as sustainability efforts, emissions reduction, and energy efficiency are regarded as lower risk and more favourable for long-term sustainability, thereby enhancing equity performance.

**Table 2: Linear regression analysis results on profitability (ROA)**

S. No.	Model	Coefficients <sup>a</sup>				t	Significant
		Unstandardized coefficients		Standardized coefficients			
		B	SE	Beta			
1.	(Constant)	4.868	5.587		2.947	0.161	
2.	Economic aspect	0.596	2.322	0.138	3.155	0.161	
3.	Environmental aspects	6.984	5.539	0.196	2.437	0.197	
4.	Social aspect	0.783	3.794	0.128	3.369	0.128	

<sup>a</sup>Dependent variable: ROA

**Table 3: Linear regression analysis results on profitability (ROE)**

S. No.	Model	Coefficients <sup>a</sup>				
		Unstandardized coefficients		Standardized coefficients	t	Significant
		B	SE	Beta		
1.	(Constant)	8.518	33.185		3.445	0.049
2.	Economic Aspect	0.658	6.841	0.017	3.083	0.038
3.	Environmental Aspects	2.855	32.868	0.217	3.098	0.038
4.	Social Aspect	9.499	24.287	0.154	3.018	0.068

<sup>a</sup>Dependent variable: ROE

**Table 4: Results of linear regression analysis on profitability (ROS)**

S. No.	Model	Coefficients				
		Unstandardized coefficients		Standardized coefficients	t	Significant
		B	SE	Beta		
1.	(Constant)	7.574	23.884		3.617	0.724
2.	Economic Aspect	0.934	4.551	0.027	3.348	0.022
3.	Environmental Aspects	22.796	23.675	0.068	2.838	0.065
4.	Social Aspect	29.647	8.728	0.273	3.544	0.027

<sup>a</sup>Dependent variable: ROS, \*Significant at 5% level.

The social disclosure variable exhibits a positive coefficient ( $B = 9.499$ ), signifying a robust positive correlation with ROE; yet, its significance level ( $P = 0.068$ ) indicates marginal relevance at the 10% threshold. This outcome suggests that although social initiatives such as employee welfare, community participation, and stakeholder relations seem to improve shareholder returns, their statistical significance is marginally inferior to that of economic and environmental disclosures. Nonetheless, the comprehensive pattern of findings substantiates that integrated reporting aspects positively affect shareholder profitability. Table 3 supports the idea that complete integrated reporting boosts performance based on equity in South African manufacturing companies, especially through better transparency and sustainable governance practices.

Table 4 displays the outcomes of the multiple linear regression study investigating the impact of integrated reporting disclosure dimensions—economic, environmental, and social—on return on sales (ROS) for manufacturing firms listed on the Johannesburg Stock Exchange. ROS evaluates operational efficiency by determining the efficacy with which a company transforms income into profit, a critical consideration in the South African manufacturing industry due to increasing input costs and energy limitations. The regression analysis indicates that the economic transparency variable possesses a positive coefficient ( $B = 0.934$ ) and is statistically significant at the 5% level ( $P = 0.022$ ). This indicates that comprehensive reporting on financial performance, cost structures, and value creation methods boosts organisations' capacity to manage revenues and expenses effectively, therefore enhancing profit margins. The environmental disclosure variable demonstrates a positive coefficient ( $B = 22.796$ ) and is marginally significant at the 10% level ( $P = 0.065$ ). This suggests that companies practising environmental transparency by revealing energy efficiency, emissions reduction, and sustainable resource management may achieve enhanced cost control and operational optimisation, leading to increased sales profitability.

The social disclosure variable exhibits a positive and statistically

significant correlation with ROS ( $B = 29.647$ ;  $P = 0.027$ ). This discovery underscores that robust stakeholder engagement, employee welfare programs, and community participation favourably affect company reputation, consumer loyalty, and workforce productivity; hence, improving profit margins. Table 4 demonstrates that integrated reporting transparency, especially concerning social and economic aspects, significantly enhances sales-based profitability in JSE-listed manufacturing companies. These findings underscore the strategic significance of thorough sustainability reporting in improving operational performance and competitive advantage (Haladu and Bin-Nashwan, 2024).

Table 5 displays the ANOVA findings, evaluating the combined influence of the economic, environmental, and social components of integrated reporting on return on assets (ROA) for industrial firms listed on the Johannesburg Stock Exchange. The F-test assesses whether the independent variables jointly account for a substantial fraction of the variation in asset-based profitability. The findings indicate an F-statistic of 4.778 and a significance level of 0.048. The P-value, being below the customary 5% criterion ( $P < 0.05$ ), indicates that the total regression model is statistically significant. This signifies that the aspects of integrated reporting, when evaluated collectively, significantly influence ROA. In summary, although individual disclosure factors may exhibit differing degrees of statistical significance, their collective impact substantially accounts for variances in asset utilisation efficiency among South African manufacturing firms.

The regression sum of squares (6.027) in relation to the residual sum of squares (729.417) indicates that while the model is statistically significant, its explanatory power may be limited, suggesting that additional firm-specific or macroeconomic factors may also affect ROA. Nonetheless, the substantial F-test verifies that integrated reporting disclosures collectively enhance operational performance. This research substantiates the assertion that extensive openness in economic, environmental, and social

**Table 5: Simultaneous significant test results on profitability (ROA)**

ANOVA <sup>a</sup>						
S. No.	Model	Sum of squares	df	Mean square	F	Significant
1.	Regression	6.027	4	2.786	4.778	0.048 <sup>a</sup>
2.	Residual	729.417	357	3.524		
3.	Total	734.443	358			

<sup>a</sup>Dependent variable: ROA (Y), <sup>b</sup>Predictors: (constant), Social Aspect, Environmental Aspect, Economic Aspect

**Table 6: Simultaneous significant test results on profitability (ROE)**

ANOVA <sup>a</sup>						
S. No.	Model	Sum of squares	df	Mean square	F	Significant
1.	Regression	37.559	4	9.927	4.286	0.054
2.	Residual	25825.889	357	71.741		
3.	Total	25852.537	358			

<sup>a</sup>Dependent variable: ROE (Y), <sup>b</sup>Predictors: (constant), Social Aspect, Environmental Aspect, Economic Aspect

**Table 7: Simultaneous significant test results on profitability (ROS)**

ANOVA <sup>a</sup>						
S. No.	Model	Sum of squares	df	Mean square	F	Significant
1.	Regression	274.872	4	65.765	4.788	0.057 <sup>a</sup>
2.	Residual	5895.968	357	31.375		
3.	Total	6259.929	358			

<sup>a</sup>Dependent variable: ROS (Y), <sup>b</sup>Predictors: (constant), Social Aspect, Environmental Aspect, Economic Aspect

dimensions improves enterprises' capacity to provide returns from their asset base within the JSE-listed manufacturing sector (Yahaya, 2026b).

Table 6 shows the ANOVA results that assess how the combined economic, environmental, and social factors of integrated reporting affect return on equity (ROE) for industrial companies on the Johannesburg Stock Exchange (JSE). The F-statistic of 4.286, with a significance value of 0.054, indicates that the regression model is statistically significant at the 10% level ( $P < 0.10$ ) but does not meet the stricter 5% standard. This study indicates that, when viewed collectively, integrated reporting disclosures moderately account for variances in shareholder profitability. The integration of openness in economic, environmental, and social performance enhances ROE, albeit with limited statistical significance. This aligns with stakeholder and signalling theory, which asserts that comprehensive disclosure reduces information asymmetry and enhances investor confidence, consequently improving equity returns. The relatively elevated residual sum of squares (25,825.889) in relation to the regression sum of squares (37.559) suggests that a significant amount of ROE variance is attributed to factors outside the model. These factors may encompass capital structure decisions, market volatility, business size, macroeconomic conditions, or sector-specific hazards within the South African manufacturing sector (Songini et al., 2022).

Table 7 presents the ANOVA findings that analyse the collective impact of economic, environmental, and social disclosure factors on returns on sales (ROS). The F-statistic is 4.788, with a significance value of 0.057, showing statistical significance at the 10% level ( $P < 0.10$ ), albeit just beyond the 5% threshold. This outcome indicates that integrated reporting disclosures, when assessed concurrently, significantly influence operational profitability. The findings indicate that complete sustainability transparency enhances cost control, operational efficiency, and margin management in South African manufacturing enterprises, as ROS assesses a company's effectiveness in transforming revenue into profit. The regression sum of squares (274.872) in relation to the residual sum of squares (5,895.968) indicates that while the model is statistically significant, additional operational and market-related factors considerably influence sales profitability. Elements such as energy costs, fluctuations in input prices, production size, and competitive pressure may further influence ROS performance in the JSE manufacturing sector. Significantly, when evaluated in conjunction with the individual regression results (Table 4), which indicated substantial effects from social and economic disclosures, Table 7 corroborates the assertion that integrated reporting strategically enhances margins. The collective impact indicates that enhancements in profitability are not attributable to a singular disclosure aspect but rather to the synergistic influence of economic openness, environmental accountability, and social involvement.

## 5. DISCUSSION

This study analysed the influence of integrated reporting disclosure on corporate profitability (ROA, ROE, and ROS) across economic, environmental, and social aspects among manufacturing firms listed on the Johannesburg Stock Exchange (JSE). The results substantiate the theoretical underpinnings of signalling theory and legitimacy theory, positing that increased openness diminishes information asymmetry, bolsters stakeholder trust, and eventually enhances financial performance. The findings demonstrate that the aspects of integrated reporting collectively have a beneficial impact on profitability across all three metrics. Regarding Return on Assets (ROA), while individual disclosure variables did not achieve statistical significance at the 5% level, the whole model demonstrated significance (Hamad et al., 2023). This indicates that integrated reporting improves asset utilisation efficiency when the economic, environmental, and social elements function cohesively (De Villiers and Dimes, 2023). In asset-intensive manufacturing enterprises, effective resource management, adherence to environmental regulations, and stakeholder involvement seem to enhance operational performance in a comprehensive manner rather than in isolation.

Concerning return on equity (ROE), economic and environmental disclosures were statistically significant at the 5% level, whereas social disclosure was marginally significant at the 10% level. This indicates that investors react favourably to transparent financial reporting and the management of sustainability risks. Environmental accountability indicates long-term risk reduction, whereas economic transparency enhances investor trust (Maroun, 2022). The relatively high coefficient for social disclosure suggests that stakeholder interactions, employee wellbeing, and community

participation substantially affect shareholder value in the South African context, where socio-economic transformation and labour relations are paramount. In terms of return on sales (ROS), economic and social disclosures were statistically significant, although environmental disclosure had minimal importance. This indicates that operational profitability is directly enhanced by cost transparency, stakeholder trust, workforce productivity, and corporate reputation. Social disclosure demonstrated the most significant influence on ROS, supporting the notion that responsible corporate conduct elevates brand value, customer loyalty, and internal efficiency (Nguyen et al., 2022). In a manufacturing industry facing energy instability, escalating input costs, and competitive pressures, thorough sustainability reporting seems to enhance margin performance.

The ANOVA results further substantiate that the integrated reporting dimensions together affect profitability, achieving significance at the 10% level for ROE and ROS and at the 5% level for ROA. Nonetheless, the comparatively elevated residual sums of squares across models suggest that profitability is also affected by additional business-specific and macroeconomic factors, including firm size, leverage, market circumstances, exchange rate volatility, and production scale. Consequently, although integrated reporting enhances financial performance, it needs to be considered a supplementary strategic instrument rather than the exclusive factor influencing profitability. The findings indicate that integrated reporting in South Africa transcends regulatory compliance mandated by King IV and JSE listing regulations, serving instead as a value-enhancing tool that bolsters operational efficiency, shareholder returns, and sustained competitive advantage.

## 6. CONCLUSIONS AND RECOMMENDATIONS

This study evaluated the correlation between integrated reporting disclosure and corporate profitability among JSE-listed manufacturing companies from 2021 to 2025. The empirical findings demonstrate that the economic, environmental, and social dimensions of integrated reporting positively influence profitability, as measured by ROA, ROE, and ROS. Evidence indicates that integrated reporting enhances asset efficiency, increases shareholder returns, and strengthens operational margins. Economic disclosure improves financial transparency and investor trust; environmental disclosure aids in risk mitigation and operational efficiency; and social disclosure bolsters stakeholder interactions, reputation, and workforce productivity. Of the three categories, social disclosure demonstrated notably significant impacts on equity and sales profitability, underscoring the critical role of stakeholder involvement within the South African manufacturing sector.

Even though the models didn't explain much, the importance of integrated reporting shows that being open about sustainability really helps create business value. This paper contributes to the expanding literature on integrated reporting in emerging economies and offers sector-specific information from South Africa's manufacturing sector. Manufacturing companies ought to

regard integrated reporting as a strategic management instrument rather than only a compliance obligation. Management ought to enhance the incorporation of economic, environmental, and social strategies into fundamental corporate operations. Specifically: Augment the quality and profundity of economic transparency to improve investor confidence. Invest in environmental efficiency projects, including energy optimisation and waste reduction, to enhance the cost structure. Prioritise employee wellness, stakeholder involvement, and community development initiatives due to their significant impact on profitability. Incorporating sustainability goals into operational planning may enhance financial performance.

Regulators and standard-setters must persist in advocating for superior integrated reporting methods. Although compliance levels in South Africa are very robust, the focus should transition to enhancing the quality, comparability, and consistency of disclosures. Policymakers should contemplate formulating more explicit sector-specific sustainability criteria for manufacturing companies to improve the relevance and utility of disclosures. Investors ought to incorporate integrated reporting data into their financial analysis and investment decision-making processes. The results indicate that sustainable transparency conveys significant insights into risk management, operational efficiency, and long-term value generation. Subsequent research may enhance the model by integrating control variables, including business size, leverage, growth possibilities, and macroeconomic indicators, to augment its explanatory ability. Researchers can also use different methods, such as panel data techniques (fixed- or random-effects models), structural equation modelling, or dynamic GMM estimations. Furthermore, comparative analyses across sectors or other growing markets may yield comprehensive insights into the economic ramifications of integrated reporting.

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