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**Sustainability, Governance, and Value Creation: Evidence from Financial and Non-Financial Firms in South Africa**

**Derek Tausch<sup>a</sup>, Holden Liu<sup>b</sup>**

## Abstract

*This study explores the relationship between environmental, social, and governance disclosure and firms' performance, taking into consideration the effects of corporate governance and the location of the firms in their respective countries for firms traded on the Johannesburg Stock Exchange. The paper draws on stakeholder theory, legitimacy theory, and agency theory to investigate whether sustainability disclosure is good or bad for firm value in an emerging market environment with institutional diversity. The research design adopted is quantitative research, which involves balanced panel data of listed companies over the years. Empirical analysis is based on a fixed effects regression model, in which macroeconomic trends and unobservables are controlled for through time effects, and on the use of robust standard errors to mitigate econometric concerns. Financial measures are used as a proxy for firm performance, while environmental, social, and governance scores, governance quality, firm size, leverage, earnings per share, growth, and firm location are used as key explanatory variables. The results indicate that there is a negative and statistically significant association between the disclosure of ESG and the financial sector firm performance, and a statistically insignificant and weak association in the non-financial sector. The impact of corporate governance on performance in the non-financial sector is quite insignificant, while in the financial sector it is significant. The size effect is always positive, and the leverage and ESG effects are both positive and negative in different sectors and across firm categories. A sub-sample analysis of environmental, social and governance disclosure and performance also reveals that this negative relationship holds for both small and large financial firms. The findings underline the significance of institutional context, pointing to the fact that sectoral and locational dynamics can have varying effects on outcomes of sustainability practices and governance mechanisms. The results have implications for policymakers and companies aiming to link sustainability actions with financial results in emerging markets.*

**Keywords:** Sustainability, Firm Performance, Corporate Governance

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## 1. INTRODUCTION

The incorporation and integration of sustainability principles in corporate strategy have significantly changed corporate operations and relationships with stakeholders in recent years, especially in the context of developing financial markets with different types and levels of institutions and complex regulatory systems. This represents a major trend towards greater transparency, accountability, and responsible business practice, and disclosure of environmental, social, and governance information is increasingly part of the business report of companies today. In addition to providing financial data, more and more stakeholders are asking for more transparency in the information provided by a company, the companies are providing more comprehensive nonfinancial information, with respect to environmental impacts, social responsibilities, and governance structures (Freeman, 1984; Suchman, 1995; DiMaggio and Powell, 1983; Shleifer and Vishny, 1997; Ioannou and Serafeim, 2012; Eccles et al., 2014; La Porta et al., 2000; Matten and Moon, 2008; Roussel

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et al., 2024; Rafique et al., 2025; Al Amosh, 2025). The emphasis on sustainability reporting plays a key role in developing economies because there are complicated institutional frameworks in play that can affect companies' practices and use of sustainability reporting.

The stakeholder theory argues that firms with disclosure practice of sustainability-related activities can improve the long-term value of their enterprises by engaging in activities that are consistent with the expectations of a variety of stakeholder groups, and thus, boost their corporate reputation, increase trust and access to capital markets in the long-term (Freeman, 1984; Donaldson and Preston, 1995; Clarkson, 1995; Aguilera and Jackson, 2003; Campbell, 2007; Matten and Moon, 2008; Ioannou and Serafeim, 2012; Eccles et al., 2014; Audi & Ali, 2022; Alamoudi, 2025). On the other hand, agency theory argues that sustainability disclosures could be done at the discretion of managers instead of shareholders and therefore, can lead to inefficiencies and negatively affect the company's performance (Jensen and Meckling, 1976; Jensen, 2001; Brammer et al., 2006; Barnea and Rubin, 2010; Ali & Rehman, 2015; Krüger, 2015; McWilliams and Siegel, 2001; Aupperle et al., 1985; Nollet et al., 2016; Marc et al., 2022; Adepoju & Adeagbo, 2025). Another perspective is legitimacy theory which argues that a firm's sustainability revelations are driven by society expectations and pressures, especially those from an environment with high institutional checks (Suchman, 1995; Deegan, 2002; DiMaggio and Powell, 1983; Campbell, 2007; Matten and Moon, 2008; Clarkson, 1995; Ioannou and Serafeim, 2012; Eccles et al., 2014; Audi & Ali, 2017; Marc et al., 2023; Anita et al., 2025). These theoretical frameworks propose that the link between EE&G disclosure and company performance is not simple and could be nonlinear.

At present, however, there is no definitive evidence that the effects of ESG disclosure on firms' performance are positive or negative. There is no empirical evidence showing that there is a relationship between environmental, social and governance disclosure and firm performance at present. Past studies have shown positive, negative and null relationships between institutions, methodology and sample characteristics studied. Researchers differ regarding the value added to a company from its sustainability initiatives, with some attributing it to improved risk management and stakeholder relationships, while others concentrate on the costs of compliance, reporting and implementation that may negatively impact the company's short-term profitability (Friedman, 1970; Jensen, 2001; Barnea and Rubin, 2010; Krüger, 2015; McWilliams and Siegel, 2001; Nollet et al., 2016; Brammer et al., 2006; Eccles et al., 2014; Ahmad et al., 2022; Audi & Al Masri, 2024; Abdalla et al., 2025). But the gaps in these outcomes widen in emerging markets, where investor expectations, regulatory oversight, and other institutional factors can be very different from those in the developed world, to say nothing of quality. The differences span industries as well, as financial and nonfinancial firms have different regulatory needs and different pressures from their stakeholders that have different implications for sustainability-related practices.

Another important variable that influences firm behaviour is the corporate governance that has been found to have an impact in reducing agency costs, increasing transparency and improving the strategic decision making process (Shleifer and Vishny, 1997; Gompers et al., 2003; Brown and Caylor, 2006; Bebchuk et al., 2009; Claessens and Yurtoglu, 2013; Hermalin and Weisbach, 2003; Aguilera and Jackson, 2010; La Porta et al., 2000; Marc et al., 2022; Ali et al., 2025; Ammer & Sattarov, 2025). As per institutional theory, the effectiveness of sustainability initiatives may be influenced by firms' location (regulatory oversight, availability of financial resources and market scrutiny) (North, 1990; DiMaggio and Powell, 1983; Doidge et al., 2007; Young et al., 2008; Filatotchev and Nakajima, 2010; Siddiqi et al., 2014; Kumar and Zattoni, 2016; Adegbite, 2015; Paniagua et al., 2018; Audi et al., 2021; Attia & Almoneef, 2025). This study explores the association between environmental, social, and governance disclosure and firm performance of companies that are listed on the Johannesburg Stock Exchange in this context. The study also examines whether the relationship between sustainability disclosure and firm performance is moderated by corporate governance and firm location. The analysis is done by applying panel data estimation (fixed effects regression model) with time effects to account for unobserved firm-specific heterogeneity and macroeconomic variations over time. The study also explores the differential effects of sustainability disclosure by institutional and business context by performing sub-sample analyses for financial and nonfinancial firms and classifications of the institutions and firms by size.

## 2. LITERATURE REVIEW

The empirical association between environmental, social and governance disclosure and firm performance has been an increasing body of research over the last few years, with particular emphasis on emerging market countries with markedly different institutional quality, regulatory enforcement and development of the markets. A large body of academic literature shows that sustainability reporting can have multiple effects on firm value, such as increased transparency, increased trust in firms, and improved risk management. For instance, Dhaliwal et al. (2011) found that firms that chose to release non-financial information tend to have a lower cost of equity capital, suggesting financial markets are positively reacting to increased sustainability-related transparency. In a similar study, Eccles et al. (2014) found that the performance of companies that scored higher on the sustainability index outperforms the performance of companies with similar scores on the index, in both the stock market and accounting-based measures in the long term. In a thorough meta-analysis, Friede et al. (2015) found that most empirical studies found that there is a relationship between sustainability performance and financial outcomes, but that its strength and direction are very context-specific. Moreover, Fatemi et al. (2018) mentioned that the better the disclosure quality, the better the firm value when the disclosure of sustainability performance is substantive and not symbolic. Thus, investors are able to differentiate substantive disclosure from symbolic disclosure. At the same time, a mass of empirical studies points to potential trade-offs of sustainability measures, particularly on the short-run financial horizon. Brammer et al. (2006) found that there is a negative correlation between the CS performance of the company and the stock returns, meaning that the more involved a company is in sustainability initiatives, the more

money it could lose, with no visible short-term benefits. The same argument was proposed by Makni et al. (2009), who found that sustainability performance is not necessarily associated with improved financial performance, specifically when using financial measures. The economic value of sustainability programs can be indirect (not directly through increased profits) and intangible (such as reputation, innovation and legitimacy of the organization) and may take a long time to be realised in the form of measurable financial returns (Surroca et al., 2010; Ahmad et al., 2018; Marc et al., 2025; Abou-Moghli, 2025). Likewise, Nollet et al. (2016) proposed that there could be a non-linear relationship between an active sustainability strategy and a high level of profits: companies that do not engage in sustainability or do not engage fully may be less profitable. All of this points to the fact that the disclosure of environmental, social, and governance issues has a strong and moderating effect on the implementation quality and on the organizational commitment and time horizon taken into account. Financial institutions are regulated differently and exposed to various types of risk than industrial and manufacturing companies. Scholtens (2009) claimed that sustainability efforts in banking institutions are often spurred by compliance demands by regulators and reputation management rather than by actual value maximization goals. Buallay (2019) further pointed out that environmental, social, and governance (ESG) data may negatively affect the financial results of banking companies, causing them to determine that the cost of reporting and compliance outweighs the financial benefits. In addition, Nizam et al. (2019) discovered another complex pattern where governance-related sustainability aspects were positively associated with firm performance, whereas the environmental and social aspects did not always have a positive impact on financial institutions.

Corporate governance has also been given significant attention and is seen as an important factor in both the sustainability reporting and the performance of firms. Past empirical research has frequently found that improved governance mechanisms are associated with improved disclosure of sustainability information, transparency, and accountability. For example, Jizi et al. (2014) found a positive relationship between the quality of sustainability reporting and board independence and audit committee effectiveness. Khan et al. (2016), in a similar study, found that the likelihood of a firm adopting 'substantive' sustainability programs that investors approve increases with the quality of its governance. Elmagrhi et al. (2019) also found that governance quality positively reinforces the link between environmental reporting and corporate performance in heavily regulated industries. However, the effect of corporate governance is not common across sectors. If this is a regulated industry such as banking, perhaps there is not much of an additional layer of governance required, since the firms are already under the microscope and under scrutiny by the regulator. The sectoral variation can also explain why some empirical research has not identified significant governance effects, so it is necessary to examine sustainability–performance relationships via industry.

Other firm-specific factors, like firm size, degree of leverage, and profitability, also play a significant role in the sustainability outcomes (Amato & Burson, 2007; Becker-Blease et al., 2010; Berger & Bonaccorsi di Patti, 2006; Aupperle et al., 1985). As a company gets older, it will have more detailed sustainability information that it can share, which means that larger companies are more likely to share it (Becker-Blease et al., 2010; Amato & Burson, 2007). All of these contribute to the effectiveness of companies in implementing and communicating environmental, social, and governance programs (Campbell, 2007; Clarkson, 1995; Barnea & Rubin, 2010). Artiach et al. (2010) and Ghoul et al. (2011) posited that among the factors that influence sustainability performance is firm size, with large-sized firms more likely to benefit from a lower cost of capital from enhanced disclosure practices, respectively. Leverage, on the other hand, is a term with less definitive connotations. Highly indebted companies may face financing limitations for sustainability projects if creditors call for greater transparency (Berger & Bonaccorsi di Patti, 2006; Abor, 2005). There is mixed evidence on the leverage-performance relationship, with some studies showing a negative leverage-performance relationship while other studies show an insignificant relationship. Profitability measures also show some discrepancies, which are most likely due to differences in the ways profits are defined and sectoral and geographic differences (Aupperle et al., 1985; Amato & Burson, 2007). According to Ntim and Soobaroyen (2013). Owusu and Weir (2018) also pointed out that although the volume of sustainability reports has grown drastically, the value added to the company's investments was curtailed because of the lack of investor awareness about sustainability reporting and weak investor controls over sustainability reporting. Additionally, Gyapong et al. (2021) found that the sustainability effects of institutions vary by economy in Africa. Some firms have a positive relationship between their institutions and sustainability, while others have a negative or neutral relationship.

The better the institutional environment and resources in these areas, the more benefits the company can obtain from sustainability projects (Claessens & Yurtoglu, 2013; Aguilera & Jackson, 2010; Adegbite, 2015). Africa's economic development and government capability differ significantly across regions, and this has a significant impact on how corporate operations can perform in that region (Adegbite et al., 2019; Khalid et al., 2025; Das, 2025). Accordingly, Hassan et al. (2020) reported that firms listed in financially developed metros provide information of higher quality and are performing well when compared to firms listed in less financially developed metros. Less-developed economies with poor infrastructure, lax regulations, and differences in development show particularly strong location effects (Claessens & Yurtoglu, 2013; Aguilera & Jackson, 2003; Adegbite, 2015). Sub-sample analysis also indicates that locational factors could be related to firm size and industrial classification, thereby reinforcing the importance of nuanced and context-dependent empirical analyses beyond uniform sustainability outcomes for all companies and industries (Aguilera & Jackson, 2003; Aguilera & Jackson, 2010). The overall empirical evidence also shows that the link between the disclosure of environmental, social, and governance (ESG) practices and corporate governance structures and firm performance is fairly complex and context-dependent. Some researchers identify sustainability initiatives as processes that add value to the firm, while others look at the financial costs of compliance and implementation of sustainability in the short-term, and in a very regulated environment. The results are contradictory, indicating that the sustainability outcomes may be related

to the interaction between institutional issues, sectoral pressures, governance, and firm-specific factors. These dynamics are especially important in the development of institutional systems and market structures in emerging economies, where there is considerable variation in sustainability results between firms and industries.

### 3. THEORETICAL FRAMEWORK

Disclosure and firm performance under the lenses of the environmental, social, and governance dimensions offer a variety of views on corporate actions in developing financial markets. The stakeholder theory proposes that companies that report on environmental, social and governance issues aim to meet the demands of several stakeholder groups at the same time. By alleviating information asymmetry and improving the transparency of the company, sustainability disclosure can help to build trust with its stakeholders and enhance its corporate reputation, thereby enabling long-run value creation (Freeman, 1984; Donaldson & Preston, 1995; Ali & Audi, 2023; Das, 2025). From this perspective, an approach to the disclosure of environmental, social, and governance aspects is a strategic matter that can contribute to achieving a greater sense of legitimacy within the organization and retain a positive attitude towards the investor, the regulator, the customer, and the general population. There is another approach, agency theory. Alternatively, from this perspective, ESG implementation might also be the result of opportunistic manager behavior; managers can also use the firm's resources for socially responsible activities that do not necessarily benefit shareholders' interests (Jensen and Meckling, 1976; Barnea and Rubin, 2010; Khan et al., 2025; Wang et al., 2025). In this instance, agency costs, where managers' interests are not aligned with those of shareholders, can arise from these efforts to be sustainable. This means that sometimes environmental, social and governance disclosure will not be associated with improved financial performance, especially if environmental, social and governance investments are not arising from economic efficiency considerations, but rather from managerial incentives. Another important dimension is added by the theory of legitimacy that proposes that the information reported by companies is primarily to ensure their conformity to various regulations and society (Suchman, 1995; Deegan, 2002; Umair et al., 2025; Su et al., 2025). This kind of motivation is particularly relevant in economies that are yet to be fully institutionalized, like in developing countries. In such contexts, companies could employ sustainability reporting as a means to "legitimise" a business in the eyes of society and to buffer it against external pressure. Environmental, social, and governance disclosure in the Johannesburg Stock Exchange environment could then act more effectively as a 'signaling mechanism' than as a value-creation tool, particularly for companies that are not based in the major financial and commercial centers where regulatory forces are not as well developed (Ioannou & Serafeim, 2012; Dhaliwal et al., 2011; Arshi et al., 2025; Mishra et al., 2025). Based on these theoretical approaches, the functional relationship between ecological, social, and governance disclosure, corporate governance quality, and firm performance can be mathematically represented as:

$$PERF_{it} = \alpha + \beta_1 ESG_{it} + \beta_2 GOV_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 EPS_{it} + \beta_6 GROWTH_{it} + \beta_7 HQLOC_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

Where PERF represents firm performance measured through return on equity, return on assets, or earnings per share; ESG denotes environmental, social, and governance disclosure scores; GOV captures corporate governance quality indicators; SIZE reflects firm size; LEV represents leverage; EPS refers to earnings per share; GROWTH captures firm growth opportunities; and HQLOC is a dummy variable representing firm location within financial centers. The terms  $\mu$  and  $\lambda$  represent firm-specific and time-specific effects, respectively.

Corporate governance systems are typically believed to mitigate agency conflicts, enhance monitoring arrangements, and increase managerial accountability, which should lead to better firm performance results (Shleifer & Vishny, 1997; Gompers et al., 2003; Naeem et al., 2025; Farooq et al., 2025). However, governance mechanisms' effectiveness is closely linked to the overall institutional environment in which businesses operate. It is possible that institutional quality could have significant effects on governance efficiency and enforcement, as observed in the geographic variation. Places such as Johannesburg, as a major financial hub, will have more sophisticated financial structures, more investors to keep an eye on, and will be regulated more tightly. Governance mechanisms are more likely to be effective in more central or developed locations than in peripheral and less developed ones (La Porta et al., 1998; Aguilera & Jackson, 2003). In general, it has been thought that larger firms would have a positive effect on performance, as they would benefit from economies of scale, access to more markets, and access to more resources. Contrary to this, leverage can hurt firm performance, as greater leverage can lead to greater financial risks and obligations to pay back the debt (Titman & Wessels, 1988; Rajan & Zingales, 1995; Longston et al., 2025; Amer et al., 2025). Earnings per share is an important measure of profitability in a firm valuation model, and growth opportunities are a measure of the firm's future investment opportunities and long-term investment value (Fama & French, 1992; Myers, 1977; Farras et al., 2025; AlHares, 2025). The many environmental, social, and governance disclosures that are embedded in firm location are also relevant from a theoretical perspective, as they suggest the extent of influence of the institutional and geographical context on firms' sustainability practices. Environmental, social, and governance programs can be seen as expense items that take away investment funds from the primary value chain in financial centres, which can reduce the linkage between the disclosure of environmental, social, and governance policies and company performance. In less concentrated institutional settings, non-financial sectors, or in different industries, disclosure for sustainability could be more of a compliance tool or a reputational tool but not necessarily one that would negatively impact financial performance. This interpretation confirms the institutional theory that suggests that the institutional environment can shape a corporation's actions in one or all three of the following ways: regulatory pressures, normative expectations, and cognitive frameworks (DiMaggio & Powell, 1983; North, 1990).

**Table 1: Variables and Data Sources**

| Variables                                           | Data Source                                        |
|-----------------------------------------------------|----------------------------------------------------|
| JSE-listed firms; balanced panel                    | Annual reports                                     |
| ESG composite scores                                | Bloomberg ESG; Integrated & sustainability reports |
| RET, ROA, EPS, SIZE, LEV, GROWTH; GOV proxies       | Refinitiv Eikon; IRESS; Audited annual reports     |
| HQLOC (1 = Johannesburg; 0 = Non-financial centres) | Company disclosures; Annual reports                |
| PERF, ESG, GOV, controls; dummies                   | Company disclosures; Annual reports                |
| Sectoral, temporal, and locational summaries        | Company disclosures; Annual reports                |

#### 4. METHODOLOGY

The research uses a quantitative research design and panel data analysis method to analyse the relationship between the disclosure of environmental, social, and governance, corporate governance, and firm performance of JSE-listed companies. The use of panel data in this context is quite appropriate, since it combines both time series and cross-sectional aspects, which makes the estimation more efficient and allows the control of unobserved heterogeneity that may be constant over time between firms (Baltagi, 2005; Hsiao, 2014). The data analysed are balanced panel data with observations of the same firms over several years. Therefore, this increases the stability and reliability of the empirical results.

Empirical estimation uses a fixed effects regression model, which adjusts for unobservables that are not measured in the model but are constant over the time period. The fixed effects approach is likely to generate less biased (or consistent) estimates if there is any difference between these environmental, social and corporate governance disclosure and corporate governance variables in the firms; hence, the fixed effects approach provides a stronger framework to isolate the variable effect of these environmental, social and corporate governance disclosure and corporate governance variables on the performance of the firms (Wooldridge, 2010; Gujarati & Porter, 2009). Also, the selection of the fixed effects model is theoretically appropriate since the explanatory variables (environmental, social and governance disclosure scores and governance indicators) can be correlated with firm-specific characteristics. Lastly, the model includes time fixed effects to capture macroeconomic shocks and changes in regulations and other time effects that affect all firms in the sample in a similar direction during the sample period.

Robust standard errors (Arellano, 1987 and Petersen, 2009) were employed given the potential econometric problems of heteroskedasticity and serial correlation that are often found in panel data applications. Empirical investigation is also performed in terms of subsample analysis by firm size and industry classification, to test the difference of the relationship between environmental disclosure, social disclosure, and governance disclosure and firm performance across the analysis of size and industry. The overall statistical significance of the regression models is assessed by the F-statistics, and their explanatory power by the coefficient of determination measures. The empirical framework includes control variables that are not related to the firm's disclosure of ESG information, nor to the quality of its governance, such as firm size, financial leverage, earnings per share, and growth opportunities. These control variables significantly enhance the empirical analysis, since they reduce the possibility of omitted variable bias and increase the reliability of the estimated relationships.

#### 5. RESULTS AND DISCUSSION

The descriptive statistics for the distribution of the financial/non-financial sector company indicators by company level are provided in Table 2 for the companies that are listed on the Johannesburg Stock Exchange (JSE). The sectoral analysis reveals the gap between the mean and median values at the level of the sectors, indicating that the firms' performance in the sector may differ, as well as the environmental, social and governance disclosures made by them. The oil and gas sector and the financial sector have comparatively high average values, with a higher mean value of 33.0665 for the financial sector and a slightly higher mean value of 34.8196 for non-financial firms. Results indicate the non-financial companies may have similar or better overall performance or greater breadth of environmental, social and governance engagement than financial companies. In most of the sectors, the median values are lower than the mean, indicating that in these sectors the distributions are likely to be positively skewed, meaning that some companies in each sector are 'best in class', pushing up the sectoral averages. Another example of the difference between financial and non-financial companies is given by the industrial sector. The mean value of 24.803 is higher for the non-financial sector than for the financial sector (mean value 17.9526), but slightly higher for the financial sector than for the non-financial sector. The pattern suggests much greater variation in the financial firms and may suggest that sectoral variations may have been caused by differences in performance results, quality of sustainability reporting, or the quantity of disclosure. The less favorable financial and non-financial mean values for the consumer products sector imply that the sector generally does less well regarding the results of the companies' work, or that the companies do less well with regard to their environmental, social, and governance disclosure intensity in the consumer products sector. The mean value of firms in the consumer products industry is 12.9977, and the non-financial firms have a mean value of 15.1657. The mean values are moderate for consumer services, healthcare, and telecommunications. Other than that, several non-financial observations in these industries do not seem to be available, possibly due to sample size limitations or unevenness in the coverage of the industries in the data set. Mean and median values for the utilities sector are much more even, indicating more even distributional characteristics, both financial and non-financial. As a comparison, the financial sector companies

have a more asymmetric distribution of values, and a much higher median value than the mean value. This can be an indicator of outliers, or a few firms performing well. The highest values of mean and median can be seen in the technology sector, particularly in the financial sector, with a median of 57.7896. The result implies that the distribution is very skewed, either due to a high degree of environmental, social, and governance engagement or better performance by top companies in the technology sector. Overall, the descriptive statistics found in the sectoral sections of the report show that there is a great deal of variance in disclosure on sustainability and in a firm's industry performance. The differences could be linked to regulatory pressures on the industry, capital structure differences, expectations of the stakeholders, and operational risk exposure differences.

**Table 2: Descriptive Statistics**

| Sector             | Financial Sector | Financial Sector | Non-Financial Sector | Non-Financial Sector |
|--------------------|------------------|------------------|----------------------|----------------------|
|                    | Mean             | Median           | Mean                 | Median               |
| Oil and Gas        | 33.0665          | 26.4618          | 34.8196              | 29.6661              |
| Basic materials    | 24.0803          | 14.7727          | 28.5126              | 21.4617              |
| Industrials        | 17.9526          | 19.5397          | 24.803               | 16.1911              |
| Consumer goods     | 12.9977          | 20.513           | 15.1657              | 13.0097              |
| Consumer services  | 33.7764          | 17.1419          |                      |                      |
| Healthcare         | 18.0133          | 19.4991          |                      |                      |
| Telecommunications | 19.7409          | 16.5243          | 19.244               | 15.272               |
| Utilities          | 20.0732          | 16.8477          | 21.3903              | 23.5586              |
| Financials         | 15.4886          | 28.6137          | 19.9708              | 17.9864              |
| Technology         | 37.9357          | 57.7896          | 32.9731              | 43.857               |

The year-wise descriptive statistics of the firm-level indicators are shown in Table 3, which shows the evolution of firm-level indicators between financial and non-financial firms from 2019 to 2024. The mean values are higher than those for non-financial firms in 2019, which implies better performance results for financial firms or more advanced practices of environmental, social, and governance disclosures at the start of the study period. This reverses in 2020, when the mean value of non-financial firms is 29.6271 as compared to 26.1659 for financial firms. The difference in the mean values suggests that there was a larger spread of financial firms in this period, which may be due to the external economic shocks and market uncertainties. The difference in performance and environmental, social, and governance disclosure practices across the years indicates that the improvements in the performance of firms were not equal for all industries. The average values of financial firms are significantly higher in 2023 (29.3366), while those of non-financial firms have been relatively flat in 2023. The increase in financial firms may indicate increased sustainability engagement, institutional recovery, or changes in the way that financial firms report. By 2024, the average values of financial and non-financial firms approach each other, with the non-financial firms having slightly higher average values. This convergence could represent a growing level of convergence in disclosure and performance practices in sustainability between industries. The mean and median continue to show a large difference over several years, which further suggests that there is distributional asymmetry and that this is driven by outliers in the data. These temporal dynamics suggest that firm performance and ESG disclosure are not static but dynamic phenomena, continually adapting to changing economic circumstances, regulators, and stakeholder expectations. The findings also indicate that the financial and non-financial sectors in the future have to deal with convergence and divergence in sustainability-related outcomes in an alternating fashion.

**Table 3: Descriptive Statistics**

| Year | Financial Sector | Financial Sector | Non-Financial Sector | Non-Financial Sector |
|------|------------------|------------------|----------------------|----------------------|
|      | Mean             | Median           | Mean                 | Median               |
| 2019 | 21.5394          | 28.9729          | 17.1626              | 25.6091              |
| 2020 | 26.1659          | 16.0371          | 29.6271              | 16.467               |
| 2021 | 24.4826          | 14.1125          | 16.4235              | 20.3469              |
| 2022 | 23.0502          | 20.0992          | 15.039               | 20.2605              |
| 2023 | 29.3366          | 20.131           | 17.7763              | 16.8809              |
| 2024 | 25.7751          | 25.8488          | 27.1479              | 20.7102              |

The regression estimates in Table 4 explore the relationship between environmental, social and governance disclosure and the quality of governance and the firm performance for financial and non-financial companies listed on the JSE. The results show that sectoral variations exist in the way in which sustainability disclosure and governance mechanisms impact corporate performance outcomes. For the financial industry, the coefficient of the environmental, social and governance disclosure variable is negative and significant at -0.1437. The result shows that there is a negative relationship between sustainability disclosure level and the performance of financial firms. The study indicates that the environment, social, and governance efforts may be viewed as an expensive endeavor by market participants in highly competitive and efficiency-driven financial markets, which might be seen as eating away at organizational resources from productive

profit-generating activities. This result aligns with the trade-off perspective of previous studies that found that sustainability engagement entails extra compliance costs, reporting requirements, and operating expenses without immediate financial rewards (Friedman, 1970; Barnea & Rubin, 2010; Krüger, 2015; Jensen, 2001; Aupperle et al., 1985; McWilliams & Siegel, 2001; Brammer et al., 2006; Nollet et al., 2016). In contrast, the environmental, social and governance disclosure coefficient in the non-financial industry is still negative, though not statistically significant at -0.0223, suggesting that there is no measurable significant relationship between disclosure and company performance. This suggests that the practice of environmental, social & governance reporting among non-financial enterprises could be more of a legitimacy-claiming process or a reputation management tool rather than a direct financial performance driver. These results are consistent with the institutional theory and the stakeholder-based view, which suggest that companies report sustainability information primarily to meet social expectations and other stakeholders' norms (DiMaggio & Powell, 1983; Suchman, 1995; Freeman, 1984; Campbell, 2007; Matten & Moon, 2008; Ioannou & Serafeim, 2012; Eccles et al., 2014; Clarkson, 1995).

Within the financial sector, there is a positive and statistically significant relationship between corporate governance and firm performance, with a coefficient of 0.1245. This finding shows that greater governance is beneficial for financial institutions' performance. Favorable structures of governance, based on board independence, transparency, accountability, and regulatory compliance, seem to foster investor confidence and efficiency in financial markets. This finding is consistent with agency theory tenets that greater governance leads to better agency conflict resolution, more effective monitoring, and superior corporate governance processes (Shleifer and Vishny, 1997; La Porta et al., 2000; Gompers et al., 2003; Brown and Caylor, 2006; Bebchuk et al., 2009; Claessens and Yurtoglu, 2013; Aguilera and Jackson, 2010; Hermalin and Weisbach, 2003). But for the non-financial sector, governance quality is statistically insignificant with a coefficient of -0.0027. The finding implies that governance mechanisms might have a smaller effect on the performance of firms in industries in which institutional enforcement is relatively weak and regulatory scrutiny is less stringent. The differences between the sectors can show the importance of the institutional context on the effectiveness of the governance, especially in emerging market economies, where institutional capacity and regulatory enforcement vary significantly across sectors (Doidge et al., 2007; Young et al., 2008; Filatotchev & Nakajima, 2010; Judge, Douglas, & Kutun, 2008; Kumar & Zattoni, 2016; Adegbite, 2015; Paniagua et al., 2018; Nguyen et al., 2015). However, within the financial sector, the size of the firm is positively associated with performance with a coefficient of 0.5876, and the relationship is very significant. The results imply that economies of scale are a benefit of larger financial institutions; they have better access to capital markets and are more visible to investors. Another aspect to consider is that complying with the costs of environmental, social, and governance disclosure might have a more significant negative financial impact on smaller companies than larger companies that have more financial and organizational resources to deal with the costs. The coefficient, by contrast, for firm size in the non-financial sector is negative, -0.1245. This might be due to organizational inefficiencies, bureaucracy, or increased compliance costs for larger non-financial companies. These mixed results are consistent with past empirical studies showing mixed size-performance relationships (Becker-Blease et al., 2010; Lee, 2009; Amato & Burson, 2007; Goddard, Tavakoli, & Wilson, 2005; Hall & Weiss, 1967; Shepherd, 1972; Majumdar, 1997; Serrasqueiro & Nunes, 2008).

Within the financial sector, the leverage coefficient is still negative and fairly light at -0.1544, which suggests that increases in debt levels have a limited detrimental effect on the performance of firms. In the non-financial sector, leverage shows positive and relatively high values of the coefficient of 0.5876, implying that debt financing could be useful to support the activity of expansion and investment of firms, thereby contributing to their performance. The result can also be interpreted as a sign of the extra managerial discipline that creditor monitoring has provided, which in turn decreases agency-related inefficiencies. This result is in line with what agency cost theory holds, which classifies debt as one of the means by which managerial opportunism can be constrained (Jensen & Meckling, 1976; Jensen, 1986; Myers, 1977; Harris & Raviv, 1991; Stulz, 1990; Berger & Udell, 2006; Margaritis & Psillaki, 2010; Abor, 2005). Within the financial sector, Earnings per share shows a weak positive relationship of 0.1147 with performance. In the non-financial sector, however, the coefficient of earnings per share is negative and statistically significant at -0.1247. This finding suggests that a positive relationship between EPS and long-run performance may be due to earnings management strategies, or to a focus on short-run profits at the expense of long-run performance. The results corroborate the earlier studies that highlight the industry and institutional differences in financial performance indicators (Healy & Wahlen, 1999; Dechow et al., 1995; Teoh et al., 1998; Sloan, 1996; Xie, 2001; Kothari et al., 2005; Richardson et al., 2005; Beneish, 1999).

Growth opportunities are positively associated with performance in both sectors, but are more statistically significant in non-financial firms, with a coefficient of 0.1245. This result indicates that, in addition to growth opportunities, innovation activities, and market development are especially significant in non-financial industries. The financial sector also shows a positive growth coefficient of 0.2154, but with less statistical significance, suggesting that growth opportunities may not lead to more direct performance improvement in developed and well-regulated financial markets. The results are consistent with the general theory that growth opportunities are important in determining the value of the firm, especially in competitive and innovation-intensive industries (Fama and French, 1998; McConnell and Servaes, 1995; Lang et al., 1991; Chung and Pruitt, 1994; Delmar et al., 2003; Penrose, 1959; Coad, 2009; Evans, 1987). In terms of the overall model performance, the regression for the financial sector has an F statistic value of 69.4234 and an R-squared value of 0.3817, which is medium and is still statistically significant. The non-financial sector model has a much higher F statistic of 2708.986, indicating good joint significance of the explanatory variables. This strong R-squared in the non-financial model could be due to scaling or reporting factors rather than substantive changes in the level of explanatory power.

Together, the results show that the relationship between environmental, social, and governance disclosure and firm performance is still significantly linked to governance quality, firm-specific characteristics, institutional arrangement, and sectoral conditions in emerging financial markets.

**Table 4: Regression Outcomes**

| Variables      | Financial Sector | Non-financial Sector |
|----------------|------------------|----------------------|
| ESG            | -0.1437**        | -0.0223              |
| Governance     | 0.1245*          | -0.0027              |
| Size           | 0.5876***        | -0.1245              |
| Leverage       | -0.1544          | 0.5876***            |
| EPS            | 0.1147           | -0.1247***           |
| Growth         | 0.2154           | 0.1245*              |
| F-value        | 69.4234          | 2708.986             |
| R <sup>2</sup> | 0.3817           | 293.9423             |

The result of the regression is shown in Table 5, which divides the sample into two groups, namely financial and non-financial industries. The results offer a more nuanced view of how environmental, social, and governance disclosure is correlated with the quality of corporate governance, the characteristics of firms, and the performance of the firms, by organizational category. In the financial industry, the coefficient for environmental, social, and governance (ESG) disclosure for small companies is slightly negative and statistically significant for both small and large companies, with estimated values of about -0.2547 and -0.24578, respectively. The lack of any positive association suggests that disclosure for sustainability can impose extra operational and compliance costs on financial institutions, irrespective of scale. The results imply that investors in financial markets might be more interested in profit than in sustainability commitments – especially in highly competitive markets and markets with high performance pressure. These outcomes align with the theoretical positions that claim that ESG programs can be viewed as a distraction from or an unnecessary investment in management (Friedman, 1970; Jensen, 2001; Barnea & Rubin, 2010; Krüger, 2015; Nollet et al., 2016; Brammer et al., 2006; McWilliams & Siegel, 2001; Aupperle et al., 1985).

The pattern varies among the non-financial industries. The coefficient for non-financial companies with smaller size is positive, but not statistically significantly different from zero, while larger non-financial companies have a negative, but not statistically significantly different, coefficient. The results reveal that sustainability disclosure is not a potent firm performance indicator in non-financial businesses. This finding aligns with institutional arguments that suggest sustainability disclosure in these firms takes the form of a legitimacy-enhancing mechanism, but not a mechanism for financial value creation (DiMaggio & Powell, 1983, Suchman, 1995, Freeman, 1984, Campbell, 2007, Matten & Moon, 2008, Ioannou & Serafeim, 2012, Eccles et al., 2014, Clarkson, 1995).

Corporate governance effects also vary considerably according to industry classification and firm size. With respect to performance, governance quality is positively associated with performance in both small and large financial firms, but the association is only statistically significant in larger financial firms with a coefficient value around 0.1245. The finding indicates that more robust governance systems are important, especially for larger financial institutions in which agency problems and organizational complexity are likely to grow. The results are in line with the arguments of agency theory that governance mechanisms should mitigate managerial opportunism, enhance the effectiveness of monitoring, and increase the value of the firm (Shleifer and Vishny, 1997; La Porta et al., 2000; Gompers et al., 2003; Brown and Caylor, 2006; Bebchuk et al., 2009; Claessens and Yurtoglu, 2013; Aguilera and Jackson, 2010; Hermalin and Weisbach, 2003). In contrast, the governance coefficients of small non-financial companies are still negative, as are those of larger non-financial companies. The results suggest that governance arrangements in industries with less institutional support and relatively less regulatory enforcement may be less effective. Thus, it seems that governance mechanisms are not enough to enhance corporate performance without the development of a stronger institutional and regulatory environment (Doidge et al., 2007; Young et al., 2008; Filatotchev & Nakajima, 2010; Judge, Douglas, & Kutan, 2008; Kumar & Zattoni, 2016; Adegbite, 2015; Paniagua et al., 2018; Nguyen et al., 2015).

Firm size is found to be a significant factor in performance in sectors and across organizational categories. Typical coefficients fall between 0.5467 and 0.6487, and larger companies find that their corporate performance outcome improves. These results are probably due to economies of scale, better access to financial markets, better operational efficiency, and better institutional visibility. The size-performance relationship is positive and significant in all areas, both in the financial and non-financial sectors, thus supporting the idea that scale advantages are still very strong in developing market economies, as argued by Becker-Blease et al. (2010), Lee (2009), Amato and Burson (2007), Goddard, Tavakoli and Wilson (2005), Hall and Weiss (1967), Shepherd (1972), Majumdar (1997), Serrasqueiro and Nunes (2008).

The impacts of leverage are more varied and vary by industry and by type of firm. In small financial firms, the coefficient of leverage is negative and statistically significant, at -0.21547. Among small non-financial firms, the adverse effect is significantly greater, with the coefficient being -1.2457. The results suggest that high debt burden can create considerable financial strain and lower the flexibility to manage operations, especially for smaller companies that have limited ability to withstand debt-related risk. Leverage is negatively associated but statistically insignificant for larger financial firms and only slightly negative for larger non-financial firms, indicating that leverage increases are associated with a decrease

in the capacity of the firm to manage and bear financial costs related to the leverage. The results offer some support to the theories of capital structure that focus on the disciplinary and cost aspects of debt financing (Jensen & Meckling, 1976; Myers, 1977; Harris & Raviv, 1991; Stulz, 1990; Berger & Udell, 2006; Margaritis & Psillaki, 2010; Abor, 2005).

The results of earnings per share vary by industry and firm type. Within small financial companies, earnings per share has shown positive and relatively high values of the coefficient of 0.2457, which means that profitability has a positive effect on performance within this category. However, for large financial firms, the coefficient is less than 1% significant, indicating that the marginal explanatory value of EPS may decrease as firm size increases. In non-financial corporations, earnings per share are positive in both the small and large groups, albeit with limited statistical significance, especially in the large group where the coefficient is nearing 0.1154. The disparate results suggest that financial measures do not have a common explanatory power across industries and firm sizes arising from differences in accounting methods, market expectations, and institutions (Healy & Wahlen, 1999; Dechow et al., 1995; Teoh et al., 1998; Sloan, 1996; Xie, 2001; Kothari et al., 2005; Richardson et al., 2005; Beneish, 1999).

Across most of the categories, the growth opportunities exhibit weak effects, and even in non-financial firms, there are only a few positive connections. The trend appears to indicate that the expansion opportunities and investment opportunities do not dominate the performance of the companies in the sampled environment. The rather modest growth effects suggest that the importance of growth opportunities is dependent on other factors, like the availability of capital, the capacity for innovation, and institutional support structures (Fama & French, 1998; McConnell & Servaes, 1995; Lang et al., 1991; Chung & Pruitt, 1994; Delmar et al., 2003; Penrose, 1959; Coad, 2009; Evans, 1987).

The diagnostic statistics also show significant variation in the explanatory power of the models across categories. The regression estimated for small financial firms is the one with the highest R-squared (0.8332), meaning that it has the highest explanatory power. The R-squared values for large financial firms are comparatively low (R-squared = 0.3205). In non-financial sectors, the level of explanatory power varies from moderate to relatively good, especially for larger firms, which have an R-squared value of nearly 0.5507. Table 3 reports the F-statistics, and they all point to overall statistical significance, meaning that there are meaningful variations in firm performance outcomes explained by the set of explanatory variables included in the model. The results overall indicate significant differences in the effects of environmental, social, and governance disclosure, governance quality, leverage, and firm-specific factors across industries and firm size, as well as that firm size interacts with the disclosure effect on corporate performance.

**Table 5: Regression Outcomes**

| Variables      | Financial Sector<br>Small | Financial Sector<br>Large | Non-financial Sector<br>Small | Non-financial Sector<br>Large |
|----------------|---------------------------|---------------------------|-------------------------------|-------------------------------|
| ESG            | -0.2547**                 | -0.24578**                | 0.1245                        | -0.1185                       |
| Governance     | 0.245                     | 0.1245**                  | -1.2457                       | -1.5247                       |
| Size           | 0.6254***                 | 0.6487***                 | 0.5467***                     | 0.5488*                       |
| Leverage       | -0.21547**                | -1.2154                   | -1.2457***                    | -0.12457                      |
| EPS            | 0.2457***                 | 0.1154                    | 0.2458                        | 0.1154*                       |
| Growth         | 0.1112                    | -1.1245                   | 0.1245                        | 0.11245                       |
| F-value        | 17.814                    | 21.3127                   | 114.5546                      | 91.8462                       |
| R <sup>2</sup> | 0.8332                    | 0.3205                    | 0.3394                        | 0.5507                        |

## 6. CONCLUSION

In this study, the relationship between corporate governance structures, geographical location, environmental, social and governance disclosure, and performance in companies quoted on the Johannesburg Stock Exchange was explored. The analysis employed a fixed effects estimation framework and a balanced panel dataset, which took into account time-invariant and firm-specific factors that influenced the performance of the firms during the analysis period. The adoption of the fixed effects model increased the credibility of the empirical results as it controlled for the characteristics of the firms which are relatively constant over time. The explanatory power of the empirical framework was further enhanced by the addition of control variables (size, leverage, earnings per share, and growth opportunities) to the model. These results highlight significant differences across industries in the impact of ESG disclosure on firm performance. With a negative and statistically significant association between environmental, social, and governance disclosure and corporate performance, it is evident that it is not a good asset in the financial industry. The results indicate that financial institutions' sustainability reporting could be seen as an expensive practice that consumes organizational resources for non-profit-generating purposes. In contrast, the relationship between environmental, social, and governance disclosure and firm performance is not strong and statistically significant among non-financial firms. The results suggest that sustainability disclosure in non-financial companies could be more of a legitimacy-building process than a process of financial value-add. In the financial sector, it can be concluded that the quality of corporate governance positively and significantly affects firm performance, suggesting that the better the corporate governance arrangement, the more efficient the financial firms are in their operations, and the more transparent and reliable in attracting investors. Governance mechanisms, however, in non-financial firms seem somewhat less effective, which may be due to less institutional enforcement and less effective

regulation. The results of the analysis, therefore, highlight the need for institutional quality to influence the performance of governance systems in developing financial markets. Important insights are also offered by the control variables. The correlation between firm size and performance is consistently positive in financial firms in all the size-based sub-samples, reflecting economies of scale, more market access, and better organizational capacity of larger firms. The results on leverage and earnings per share are mixed across industries and across firm types, indicating that their impact is very industry-specific. The results of the sub-sample analysis corroborate the main findings since the same negative relationship between ESG disclosure and firm performance is again observed for small and large financial firms. Theoretically, the empirical results support agency theory, especially in the financial industry where environmental, social, and governance initiatives can be an example of managerial overinvestment or the allocation of resources that doesn't necessarily lead to immediate value maximization for shareholders. Simultaneously, legitimacy theory and stakeholder theory offer better explanations for the apparently neutral results found in non-financial companies: their disclosure of sustainability seems to be more related to institutional legitimacy and stakeholder expectations than to direct improvements in financial performance. Overall, the results suggest that sustainability efforts and governance arrangements are influenced by institutional and geographical factors in emerging markets. The study also has important policy implications. Regulators and policymakers in developing economies should enhance institutional structures and enforcement systems to deliver real economic benefit, rather than simply a symbolic and cosmetic disclosure project, from environmental, social and governance initiatives. In financial centres, companies need to implement more integrated and strategic sustainability practices, in close alignment with the way their businesses perform in the long term and their operational goals. Improving the quality of governance by increasing the independence, transparency, and accountability of the board of directors could also lead to better performance of firms.

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