

Analysis of the relationship between foreign shareholding and ESG performance of South African listed companies

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Keywords

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Abstract

Given the global movement towards sustainability and the stagnant economic growth of South Africa, this study investigates the relationship between foreign shareholding percentages and the environmental, social, and governance (ESG) scores of companies listed on the Johannesburg Stock Exchange from 2015 to 2019. With foreign investment identified as a key driver of economic growth, the study explores how ESG scores correlate with the proportion of foreign ownership, using ESG data from FTSE Russell. The data was analysed through a generalised linear mixed effects model. This study identified a positive and significant association between the overall ESG, environmental, and social scores and the percentage of foreign shareholding, respectively. Stakeholder theory suggests that companies will determine action based on the interests of all relevant stakeholders. When foreign shareholders are concerned about ESG performance, companies increase their ESG ratings, considering their current and future investors. This study is value-adding in providing evidence for governments to mandate a national transition to better ESG practices.

Introduction

Globally, there has been a general trend whereby the market and consumers are becoming aware of the importance of sustainability and the role humans play in the sustainability landscape. From an investor perspective, there has been a shift from profit-focused, traditional investments toward holistic impact investments (Alda, 2019). Environmental, social, and governance factors (ESG) are becoming key for investors' strategies (Matos, 2020). As articulated by Matos (2020), ESG is an evolving field. The numerous ESG reporting frameworks support the growing interest and demand for ESG disclosures (Petersen, Herbert & Daniels, 2022). This movement has led to considerations in how foreign investment is utilised. Suehrer (2019) proposed impact investing as the future of foreign direct investment (FDI) by implementing investment opportunities such as socially responsible funds. According to the World Investment Report 2020, there has been recent growth in sustainable funds on a global scale, with most sustainable funds being held in Europe, followed by the United States (US) (UNCTAD, 2020). From this, it can be inferred that some investors, particularly those of European and US origin, are more driven by sustainability criteria than others.

South Africa, an emerging economy, has suffered from a recession and requires investment to grow the economy. In 2020, FDI inflows to South Africa declined by 39% compared to the prior year. In contrast, Southern Africa only experienced a 16% decline in total FDI inflows (UNCTAD, 2021). In understanding the linkage between foreign investment to South Africa and the attractiveness of ESG for these investments, this study assessed, by way of regression analysis, if there is a relationship between the foreign shareholding percentage of companies listed on the Johannesburg Stock Exchange (JSE) and the ESG scores of these companies. This study combines the equity definitions derived from foreign direct investment and foreign portfolio investment as foreign investment, and the foreign shareholding percentage of companies is used as a proxy for foreign investment. In the pursuit of identifying

mechanisms to increase foreign investment in South Africa, the results of this study will provide recommendations on the ESG actions that both companies and the South African government could take to encourage additional foreign investment.

Literature review

Development of sustainable investment

Sustainable investment, centred on ESG factors (Matos, 2020), has led to evolving investor strategies (Roundy *et al.*, 2017). Investors' greater focus on ESG has driven the expansion of sustainability-themed funds and indices alongside increased sustainability reporting, especially among listed companies (Alda, 2019). The 2030 Agenda for Sustainable Development promotes 17 Sustainable Development Goals (SDGs) that encourage sustainable practices. ESG data closely aligns with these targets (United Nations, 2015), reflecting a strong connection between ESG principles, the SDGs, and broader sustainability efforts.

The reporting perspective

Companies' ESG reporting is shaped by laws and guidance from multi-stakeholder bodies like the Global Reporting Initiative (GRI) and investor-focused organisations such as the Taskforce on Climate-Related Financial Disclosures (TCFD) (Petersen *et al.*, 2022). ESG reporting may be either mandatory or voluntary. Mandatory reporting provides essential information for investors, enhancing transparency and encouraging companies to adopt sustainable practices (Krueger, Sautner, Yongjun Tang and Zhong, 2021). Ioannou and Serafeim (2017) found that mandatory sustainability reporting improves transparency and ethical practices, positively impacting ESG performance. It also strengthens ESG ratings through agencies like FTSE Russell, helping companies enhance their scores, gain competitive advantage, and foster value creation (Ioannou and Serafeim, 2017).

Krueger *et al.* (2021) investigated mandatory ESG reporting in various countries, including South Africa, finding that such regulations, whether imposed by governments or stock exchanges, improve report quality and reduce adverse ESG incidents. In South Africa, companies must engage in integrated reporting, as required by the JSE (Krueger *et al.*, 2021). The International Integrated Reporting Council (IIRC) introduced the Integrated Reporting Framework in 2013, integrating financial and non-financial information to promote sustainable value creation. This framework also addresses sustainability by covering six capitals, including social, human, and natural capital (IIRC, 2021).

The investors perspective

The landscape of sustainable investment has evolved, with investors increasingly prioritising financial and social returns. Research shows varied perspectives on ESG investing. Jansson and Biel (2011) found that while ESG investments may yield lower short-term returns, institutional investors view them as profitable long-term investments with risk mitigation benefits. However, investor motivations vary, with some focusing on returns and others on reducing risk, requiring companies to align strategies accordingly. Similarly, Alda (2019) noted that ESG-focused United Kingdom pension funds improved environmental practices and transparency, showing that socially responsible investments can positively impact corporate sustainability. A McKinsey & Co. survey (Bernow *et al.*, 2019) found that investors prioritise reliable, consistent, and financially material sustainability disclosures, particularly those linked to financial performance. This trend aligns with Jansson and Biel (2011) and Przychodzen *et al.* (2016), who identified ESG investments as tools for financial risk management and sustainable development. The United Nations Conference on Trade and Development (UNCTAD) 2021 reported significant growth in sustainability-themed funds driven by investor interest in ESG practices. In 2020, there were 3,435 mutual funds with assets of USD 1.56 trillion and 552 exchange-traded funds managing USD 174 billion, a 30% rise from 2019. These funds comprised 3.3% of the total global assets in open-ended funds by June 2020. This trend, consistent with Przychodzen *et al.* (2016), Alda (2019), and Jansson and Biel (2011), reflects a growing emphasis on sustainability criteria in investment strategies.

Development of sustainable investment in South Africa

Sustainable investing in South Africa began in 2004 with the JSE launching the Socially Responsible Investment (SRI) Index. In 2015, the JSE replaced this with the FTSE/JSE Responsible Investment Index and the FTSE/JSE Responsible Investment Top 30 Index, aligning with global sustainability practices and promoting corporate citizenship and sustainable development (JSE Limited, 2021a). The King Code on Corporate Governance, particularly King IV, further supports sustainable investing by mandating JSE-listed companies adopt a stakeholder-inclusive approach. This shift from a shareholder-centric model encourages management to consider the broader impact of their operations on stakeholders such as customers, employees, and the environment (JSE Limited, 2021b).

Determinants of ESG performance

Sustainable investing requires understanding what drives strong ESG performance. Garcia, Mendes-Da-Silva and Orsato (2017) examined the relationship between financial profiles, industries, and ESG performance within the BRICS countries (Brazil, Russia, India, China, and South Africa). Their findings show that companies in sensitive industries tend to achieve higher ESG performance, likely due to reputational risks. Additionally, companies with greater cash reserves are more likely to invest in ESG initiatives, given their financial flexibility (Garcia *et al.*, 2017).

Cheng, Ioannou and Serafeim (2014) found that companies with strong corporate social responsibility (CSR) practices experience fewer capital constraints. They attribute this to improved stakeholder engagement, which reduces opportunistic behaviour and lowers agency costs. Furthermore, these practices enhance revenue generation through better relationships with stakeholders. Transparency and accountability also play a role, as companies with better CSR practices tend to have higher levels of disclosure, reducing information asymmetry and minimising risk (Cheng *et al.*, 2014a).

Determinants of foreign investment in South Africa

The International Monetary Fund (IMF) (2009) defines FDI as cross-border investment where the investor controls or significantly influences the enterprise. The Organisation for Economic Co-operation and Development (OECD) (2002) identifies FDI as essential for economic development by driving higher growth. However, global FDI fell by 35% in 2020 due to the COVID-19 pandemic, with inflows expected to remain below pre-pandemic levels, given ongoing uncertainties, particularly in supply chains (UNCTAD, 2021). Africa's FDI inflows generally may also take longer to recover (UNCTAD, 2021). FDI can support job creation, growth, and development (Sauvant, 2016). Aust *et al.* (2020) argue that FDI can help achieve SDGs in developing countries but may also worsen climate change by shifting harmful activities from developed to developing nations. Suehrer (2019) suggests rethinking FDI through frameworks promoting impact investing over profit-driven strategies. Measures such as regulatory amendments, contracts, and 'naming and shaming' non-compliant investors could encourage more responsible behaviour (Sauvant, 2016).

South Africa's FDI inflows have been a concern for years, with agencies like Moody's, Fitch, and S&P downgrading the country's credit ratings (World Government Bonds, 2021). The World Investment Report (UNCTAD, 2021) notes that credit rating downgrades increase borrowing costs for developing nations, reducing FDI inflows. In 2019, South Africa's FDI dropped by 15% to \$4.6 billion (UNCTAD, 2020). Takawira and Motseta (2021) found a positive relationship between credit ratings and financial flows, indicating that declining ratings could harm economic growth (Arvanitis, 2005). FDI inflows declined globally by 35% in 2020. South Africa experienced a 39% drop, driven by higher pandemic-related costs, an 8% gross domestic product (GDP) decline, and a 52% fall in mergers and acquisitions (UNCTAD, 2021). Despite a significant increase in FDI to USD 40.9 billion in 2021, this spike mainly resulted from an intragroup transaction between Prosus and Naspers (UNCTAD, 2022). As such, it may not indicate sustainable or long-term FDI growth.

The IMF (2009) defines FPI as cross-border transactions involving debt or equity securities, excluding direct investments or reserve assets. While FDI is seen as a more stable capital source, FPI supports sustainable development. Sustainability-themed investments, such as green and social bonds, have grown significantly (UNCTAD, 2021). FPI aligns with achieving the SDGs, with 27% of sustainable equity fund

assets supporting sectors such as renewable energy, water management, and ecosystem diversity (UNCTAD, 2021). Institutional investors are critical in driving organisational change through asset allocation and active ownership (Przychodzen *et al.*, 2016). Large investors, including the top 100 pension and sovereign wealth funds, collectively hold about 5% of listed equities, enabling them to influence corporate strategies and promote sustainable practices through voting rights (UNCTAD, 2021).

Both FDI and FPI involve foreign equity ownership. This study defines foreign investment as any foreign equity interest in a company.

Theories identified from prior literature

This study explores the relationship between the foreign shareholding of JSE-listed companies and their ESG scores, adopting stakeholder theory to guide the analysis. Relevant stakeholders include foreign shareholders and those connected to ESG efforts, such as employees, communities, and the natural environment. Stakeholder theory emphasises that companies must address the interests of key ESG stakeholders alongside global investors (Freeman, 2010). Freeman (2010) argues that companies should develop strategies that consider internal and external stakeholders and understand their interests and influence on the organisation. These stakeholders must either shape the organisation's direction or affect its ability to implement strategies.

In South Africa, JSE-listed companies must comply with the King Code, with King IV promoting stakeholder inclusivity as part of good governance (JSE Limited, 2021b). This framework encourages organisations to consider the value created for all stakeholders, not just financial capital providers (Institute of Directors in Southern Africa, 2016).

Alda (2019) used stakeholder theory to examine how socially responsible pension funds influence the companies they invest in, concluding that long-term institutional investors can shape ESG practices by aligning with company goals. This study seeks to determine whether a positive relationship exists between foreign shareholding in JSE-listed companies and their ESG performance. The findings will contribute to the literature on stakeholder inclusivity, supporting the frameworks of Freeman (2010) and the King Code (Institute of Directors in Southern Africa, 2016).

Method

The literature review showed a gap regarding the relationship between foreign shareholding and ESG performance. As such, the resulting research question arose – is there a relationship between ESG scores, as determined by the FTSE Russell, and the foreign shareholding percentage of companies listed on the JSE in a pre-COVID trading environment?

This research focused on South African companies, specifically those listed on the JSE. The study used each significant element of the FTSE Russell scoring system and the total score. The hypotheses, therefore, were defined as follows:

H1: A significant relationship exists between the overall ESG score and foreign shareholding percentage of JSE-listed companies in a pre-COVID trading environment.

H2a: A significant relationship exists between environmental ESG performance and the foreign shareholding percentage of JSE-listed companies in a pre-COVID trading environment.

H2b: A significant relationship exists between social ESG performance and the foreign shareholding percentage of JSE-listed companies in a pre-COVID trading environment.

H2c: A significant relationship exists between governance ESG performance and the foreign shareholding percentage of JSE-listed companies in a pre-COVID trading environment.

This study sought to determine if there is a relationship between the foreign shareholding percentage of JSE-listed companies and their ESG scores. This section discusses the data collection procedures for the variables, the limitations identified in determining the final population, and the analytical work performed on the data.

Data collection

All JSE-listed companies as of 31 December 2019, scored by FTSE Russell, were included in the dataset. Given the expected anomalies from the COVID-19 pandemic, 2020 data was excluded. A total of 462 securities were initially considered. However, as FTSE Russell only scores companies listed on the Russell 1000 Index, FTSE All-Share Index, and FTSE All-World Index (FTSE Russell, 2021), JSE-listed companies not scored by FTSE Russell were excluded due to a lack of comparable ESG data. The final dataset comprised 412 data points over five years, as detailed in Table 1. The sample was further reduced for reasons outlined in the table. A limitation of this study is that companies delisted before 2019 were omitted.

Table 1: Summary of final data population

	2015	2016	2017	2018	2019	Total
Row 1: Initial population of FTSE Russell-rated companies.	78	79	85	89	81	412
Row 2: Companies not yet rated by the FTSE Russell at the relevant year-end.	-2	-2	-0	-2	-1	-7
Row 3: Bloomberg data not available for specific companies.	-2	-2	-1	-1	-1	-7
Row 5: Unknown shareholding greater than 25%. Where the geographical location of shareholders is not publicly available, it is shown as unknown. Only companies with at least 75% geographically identified were included.	-15	-16	-31	-29	-35	-126
Row 6: Refinitive Eikon Datastream data not available	-3	-1	-1	-1	-1	-7
Final companies included in the sample	56	58	52	56	43	265

Independent variable: ESG Scores

The ESG scores for this study were sourced directly from FTSE Russell, which evaluates around 7,200 securities from the FTSE All-Share, FTSE All-World, and Russell 1000 indices. Public information on a company's sustainability practices is assessed against pre-determined ESG factors.

FTSE Russell calculates scores based on three pillars: environmental, social, and governance. Companies are rated across 14 areas, generating three scores: the overall ESG, pillar, and theme scores. This study focused on the overall and pillar scores. The rating model assigns scores from 0 to 5 across all categories, with a score of zero given if no disclosure is made. Scores are weighted by exposure levels, accounting for the industry and location in which the company operates (FTSE Russell, 2019).

Dependent variable: Foreign shareholding of companies

This study identified the foreign shareholding percentage of companies as a proxy for foreign investment. This draws on the definitions of both FDI and FPI pertaining to equity securities. The dependent variable was obtained from Bloomberg. The last day of the calendar year was used to collect the data. As noted above, companies were excluded from the sample where data was unavailable.

Control variables: ESG performance

The literature identifies several variables related to ESG performance. Garcia et al. (2017) found that industry type, free cash flow, company size, and profitability influence ESG performance, with environmental performance significantly linked to profitability and industry. Cheng et al. (2014) observed that corporate social responsibility (CSR) practices improve as capital restrictions decrease. The KZ index, developed by Kaplan and Zingales, measures capital constraints and is widely used in corporate finance (Cheng *et al.*, 2014). Capital constraints refer to market factors limiting a company's ability to secure financing, such as restrictions on equity issuance. Table 2 outlines the variables and their role as control variables in this study, with data from Refinitiv Eikon Datastream.

Table 2: Control variables relating to ESG performance

Variable name	Description & proxy used	Reason for inclusion	Data source
Industry	Sensitive industries were scored '1' and other industries '0'. The following industries were included as sensitive industries: <i>Precious metals and mining</i> <i>Industrial metals and mining</i> <i>Chemicals</i> <i>Oil, Gas and Coal</i> <i>Industrial materials</i>	Companies in sensitive industries are more likely to have consistent disclosures compared to companies in less sensitive industries (Garcia <i>et al.</i> , 2017)	Eikon Datastream
Free cash flow	Free cash flow was proxied by Net Cash Flow – Operating Activities.	A positive correlation was identified in the literature between companies' free cash and their overall ESG performance (Garcia <i>et al.</i> , 2017)	Refinitiv Eikon Datastream
Company size	Market capitalisation and net revenue were proxies for company size.	A positive correlation was identified between the size of a company and overall ESG performance (Garcia <i>et al.</i> , 2017)	Eikon Datastream
Profitability	Return on assets was used as a proxy for profitability.	A significant association was identified between a company's profitability and the environmental component of its ESG performance (Garcia <i>et al.</i> , 2017)	Eikon Datastream – Worldscope
Capital Restriction	The KZ index was calculated for each company included in the population.	Companies with lower capital restrictions tend to have improved CSR practices (Cheng <i>et al.</i> , 2014a).	The researchers' calculation, based on data from Eikon Datastream

Statistical analysis of data

This study employed a beta generalised linear mixed effects model (GLMM) to analyse the relationship between companies' foreign shareholding percentages and ESG scores from 2015 to 2019. A logit link function was applied to express the response as a linear combination of predictor variables. A subject-specific random effect accounted for within-subject correlation from repeated measures. The independent variables included ESG scores and control variables, with the beta GLMM formulated as:

$$Y_i = \beta_0 + \beta_1 \text{overall_ESG_score} + \beta_2 \text{Returns} + \beta_3 \text{Cashflow} + \beta_4 \text{Market_value} + \beta_5 \text{Net_Revenue} + \beta_6 \text{KZ_score} + b_i$$

Limitations of research

This research has limitations due to the nature of the extracted data. The population was restricted to companies listed on the JSE as of 31 December 2019, with sufficient publicly available data on Bloomberg and Refinitiv Eikon. As the study focused on the pre-COVID environment, it did not account for pandemic-related factors. Foreign investment was measured through the foreign shareholding percentage

as a proxy. Although FPI and FDI include debt elements (International Monetary Fund, 2009), this study only considered equity financing. The FTSE Russell provided the ESG scores, but limitations may exist in the data used to calculate these scores, affecting the independent variable.

Findings and discussion

Descriptive statistics

Descriptive statistics of the dataset were performed to understand how the variables in this study are distributed. Table 3, below, provides details of this.

Table 3: Descriptive statistics of the variables of interest in the dataset

Variable	Minimum	1st Quartile	Median	3rd Quartile	Maximum
Foreign Shareholding (%)	0.04	15.51	31.46	45.37	99.24
Overall ESG Score (out of 5)	1.30	2.80	3.40	4.00	4.80
Environmental Score (out of 5)	0	2.00	3.00	4.00	5.00
Social Score (out of 5)	0.50	2.20	3.10	3.70	5.00
Governance Score (out of 5)	1.70	3.60	4.20	4.60	5.00
Return on assets, 'returns' (%)	- 14.59	2.65	6.62	10.66	123.26
Free cash flow, 'cashflow' (ZAR thousand)	- 38 086 666	2 077 000	4 354 000	12 160 296	260 788 377
Market Value (ZAR million)	5 163	27 331	50 039	117 972	2 455 722
Net Revenue (ZAR)	- 7 000	18 330 000	41 200 000	84 968 000	3 115 239 678
KZ Score (researcher's calculation)	-7.82	-0.93	0.17	1.00	2.45

Given the skewed data, the median score is reported instead of the mean. The overall ESG median was 3.4, with environmental and social medians at 3 and 3.1 and governance at 4.2. The high governance score aligns with South Africa's robust regulatory framework. JSE-listed companies must adhere to King IV principles, with corporate governance as a core focus (JSE Limited, 2021b).

From 2015 to 2019, foreign shareholding percentages rose, with a slight dip in 2017. ESG scores also improved, reflecting enhanced practices and communication. The introduction of King IV in 2016 may have contributed by promoting integrated thinking, corporate citizenship, and stakeholder inclusivity (Institute of Directors in Southern Africa, 2016), aligning with the global shift towards sustainability observed in the literature.

The 2017 drop in foreign shareholding may have been linked to political and economic uncertainties. Investor concerns arose from uncertainty over South Africa's political future in December 2017 (Winning and Stoddard, 2017). Though GDP grew by 0.8% following the country's exit from recession, weak public spending and low fixed investment slowed recovery (United Nations Department of Economic and Social Affairs, 2017). These factors likely contributed to the 2017 decline, though this study does not assess the external environment in detail.

The ESG pillar scores (environmental, social, and governance) were assessed over five years, with the results presented in Table 4 and related figures.

Table 4: Median scores of the ESG pillar scores over the five years

Pillar category	2015	2016	2017	2018	2019
Governance	3.65	4.00	4.00	4.50	4.50
Environmental	2.25	3.00	3.00	3.50	3.40
Social	2.30	3.05	3.00	3.35	3.70

Table 4 shows that the median governance score increased from 3.65 in 2015 to 4.50 in 2019, consistently outperforming the environmental and social scores. This suggests strong governance performance, likely influenced by the 2016 implementation of King IV.

The theme scores were analysed using descriptive statistics, with medians and means calculated over five years. Environmental themes showed rising median scores, except for water use, which fell from 4 in 2018 to 2 in 2019. Apart from health and safety, social themes also improved, which remained steady at a median of 3. Governance themes revealed Corporate Governance as the strongest, with a median score of 5 across all years. These trends align with rising overall and pillar ESG scores, indicating continuous improvements in ESG practices and reporting. No correlation was found between the control and dependent variables (foreign shareholding percentage). As a result, no further analysis was conducted on the control variables.

Regression analysis

Overall ESG Score

A positive and significant association was observed when testing the relationship between the overall ESG score and the foreign shareholding percentage. This is illustrated in Table 5.

Table 5: Statistical Results from Beta Generalized Linear Mixed Effects Model (each variable individually regressed against foreign shareholding)

Predictor	Estimate	Std. Error	Z Value	P-value
Overall Score	0.22	0.09	2.38	0.0173*
Environment Score	0.18	0.06	2.79	0.0053*
Social Score	0.18	0.07	2.46	0.0138*
Governance Score	0.06	0.09	0.56	0.549

*: Statistically significant at 5% level (p-value < .05)

The results indicate that an increase in the overall ESG score is correlated with an increase in the foreign shareholding percentage. The strong association observed allows the H1 hypothesis to be accepted. The model provides evidence of correlation; however, causation has not been tested in this study. The control variables identified in the literature review have been included in the regression model to determine if the increase in foreign shareholding results from a combination of the ESG score and other variables. This model's result is illustrated in Table 6 below.

Table 6: Results of Beta Generalized Linear Mixed Effects Model for Overall ESG Score and Control Variables

Predictor	Estimate	Std. Error	Z Value	P-value
Overall Score	0.03836	0.14906	0.257	0.7969*
Log (Returns)	-0.04174	0.13774	-0.303	0.7618*
Log (Cashflows)	0.05134	0.15160	0.339	0.7349*
Log (Market value)	0.30620	0.13965	2.193	0.0283*
Log (Net Revenue)	0.10627	0.16717	0.636	0.5250*
Log (KZ score)	0.03026	0.12255	0.247	0.8050*
Industry Coded	-0.20556	0.32636	-0.630	0.5288*

*: Not statistically significant at 5%

Table 6 shows that when control variables are included, the significant association between foreign shareholding and the overall ESG score (noted in Table 5) is no longer evident. The regression model found no significant relationship between the overall ESG score and foreign shareholding with the control

variables applied, confirming that the positive relationship observed in Table 5 is independent of these variables.

The positive correlation between foreign shareholding and ESG scores supports existing literature on investor behaviour, such as Alda (2019), which found that foreign investors favour companies with strong ESG performance. This reflects a shift towards incorporating ESG criteria in investment decisions. Companies improving their ESG practices by addressing stakeholder needs may drive this trend, with positive investor responses aligning with stakeholder theory and further validating its principles.

Pillar Scores – environmental, social and governance

A significant positive association was found between the overall ESG score and foreign shareholding. The ESG pillars were tested in the regression model to assess their relationship with foreign shareholding. Table 5 (above) shows significant positive correlations for the environmental and social scores, with p-values below 0.05. However, no significant correlation was identified for governance scores, leading to the acceptance of H2a and H2b and the rejection of H2c.

The absence of a governance correlation may reflect South Africa's well-established governance practices, shaped by the King Reports. The high governance median score (Table 3) suggests that companies have developed mature governance frameworks, potentially leading investors to prioritise environmental and social aspects, assuming governance is already well managed.

These findings indicate that investors weigh different ESG components differently. Jansson and Biel (2011) observed that investor profiles vary, with some investors valuing certain ESG aspects more. Similarly, this study found foreign investors favouring the overall, environmental, and social scores over governance. Understanding these preferences can help companies target specific ESG areas to attract foreign investment, aligning with the insights of Jansson and Biel (2011).

Companies primarily in technology, financials, real estate, and consumer discretionary sectors did not have strong ESG practices and had low foreign shareholding, supporting the hypothesis that higher ESG scores are correlated with higher foreign shareholding. Basic materials companies had higher ESG scores and foreign shareholding, supporting H1. However, companies in the financials and basic materials sectors had relatively low foreign shareholding despite higher ESG scores. This indicates that industry may drive the higher scores. Sensitive sectors like financials and materials tend to disclose more and achieve better ESG performance, according to studies by Garcia et al. (2017). This supports the H1 hypothesis.

Furthermore, companies with foreign headquarters tended to have higher foreign shareholding percentages and ESG scores, likely due to stricter ESG regulations in their home countries. In contrast, South African-based companies generally have lower ESG scores and foreign shareholding. This suggests South Africa's legislative environment may influence companies' ESG practices. Furthermore, the literature indicates that foreign investors increasingly prioritise ESG criteria (Alda, 2019), which could encourage more substantial ESG efforts among foreign companies.

Conclusion and recommendations

This study sought to determine if there is a correlation between the foreign shareholding percentage and the ESG score of companies listed on the JSE in a pre-COVID trading environment. Financial flows to South Africa are negatively affected by several variables, including credit rating downgrades (Takawira and Motseta, 2021). The decline in FDI inflows to South Africa was partially attributed to the COVID-19 pandemic, with the 2021 inflows representing a skewed increase as an intragroup transaction across borders influenced it (UNCTAD, 2022). Investors in the foreign market are shifting towards a holistic approach to investing, with research demonstrating that investors are including ESG criteria in their investing-making decisions (Alda, 2019). Stakeholder theory assumes that companies consider all relevant stakeholders, not only their shareholders (Freeman, 2010).

The GLMM results allowed the overall hypothesis (H1) to be accepted with a significant and positive association between the overall ESG score and the foreign shareholding percentage obtained. A similar conclusion was obtained for the environmental (H2a) and social (H2b) hypotheses. On the other hand, the

governance hypothesis (H2c) was rejected, implying a lack of association between the governance pillar scores and the foreign shareholding percentage of companies. This could be attributed to the governance practices that companies are mandated to apply as part of their listing on the JSE (JSE, 2021a), whereby companies must apply the governance principles as per the King Report.

The regression analysis provides evidence that the management of JSE-listed companies should invest in practices promoting ESG values to encourage foreign investment in their companies. This study adds value as it can aid governments in implementing policies for companies to incorporate ESG practices to increase foreign investment. As evidenced by the research performed by Jansson and Biel (2011), investor profiles differ greatly, with different investor groups prioritising ESG for various reasons. This behaviour should be incorporated into the strategic planning of South African companies to determine methods of increasing foreign funding by uplifting their environmental and social practices.

Opportunities for further research exist in expanding this research to assess if the same conclusion can be made for a post-COVID trading environment. In addition, the passage of time may also result in changes to the regulatory environment, causing companies to alter their actions in line with legislation. Therefore, further research should determine if such events may influence the relationship between ESG performance and foreign investment in South Africa. This research only considered foreign shareholding percentage as a measure of foreign equity investment (FDI and FPI). To further assess the relationship between ESG performance and foreign investment, additional research could be undertaken to incorporate other proxies for foreign investment. The investor profiles identified by Roundy et al. (2017) were not applied to this research, as this study does not conclude on the motives of the types of foreign investors behind their investment choices. As such, this is outside of the scope of this study. However, this is an opportunity for further research. It can provide insight into investors' rationale for considering ESG factors in their investment portfolios.

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