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Environmental, Social, and Governance (ESG) Performance and Corporate Tax Planning Behaviour in Developing Economies: Evidence from Transparency Incentives

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Abstract: Purpose: This study examines whether corporate Environmental, Social and Governance (ESG) performance is associated with tax avoidance behaviour among listed firms in African markets. It focuses on institutional environments where enforcement capacity, stakeholder pressure, and governance quality differ from those in developed economies. Design/methodology/approach: Using a balanced panel of 82 manufacturing firms per year from the Nigerian and Egyptian stock exchanges over five years (410 firm-year observations), the study analyses firms with December fiscal year-ends and positive taxable income. ESG data are obtained from Bloomberg, while financial data are sourced from stock exchange disclosures and international databases. Tax avoidance is measured using the Desai and Dharmapala (2006) residual-based book–tax difference model. Pooled ordinary least squares, random-effects, and firm fixed-effects regressions are employed, with robustness checks using cash effective tax rates. Findings: Aggregate ESG performance is positively associated with tax avoidance in pooled regressions; however, the relationship becomes statistically insignificant under firm fixed-effects estimation, suggesting no causal effect at the aggregate level. Disaggregated analysis shows that the social dimension of ESG is positively associated with tax avoidance, particularly among well-governed firms, while environmental and governance dimensions are not significantly related to tax avoidance. Originality: The study provides new evidence from underexplored African markets and highlights how ESG engagement may coexist with tax avoidance as part of broader value-maximizing strategies.

Keywords: ESG Performance, Corporate Tax Avoidance, Corporate Governance, Sustainable Finance, Developing Economies.

INTRODUCTION

Environmental, Social and Governance (ESG) performance has emerged as a key component of corporate strategy, as companies strive to adopt sustainable business practices, demonstrate accountability to their stakeholders, and create value over the long-term. In recent years, as investors, regulators, and financial markets increasingly have access to ESG information and use it in their investment and governance processes, many academics have explored whether that impacts other strategic actions taken by companies, such as corporate tax avoidance. The issue of tax avoidance is one of the most discussed corporate financial strategies since it is possible to reduce tax liabilities and thereby increase shareholder value, but it can also be viewed as a breach of trust among the population, a loss of faith in government revenue mobilisation and a violation of a company's wider corporate social responsibilities (Kovermann & Velte, 2021). Thus, one key issue in the corporate governance literature is whether companies that are more visibly ESG aware are also more likely to exhibit responsible tax behaviour.

There is no current empirical evidence to answer this question. The literature is extensive and shows that companies with better ESG records have fewer incentives to pursue tax optimisation due to the positive impact on corporate legitimacy and the relationships they build with their stakeholders, as well as on the repulsion of opportunistic management (Yoon et al., 2021; Kiang et al., 2024). Others also suggest that sustainability activities can be combined with tax-saving strategies when managers conduct their tax planning in a way that serves to improve their corporate image and reputation, alongside of add value to their shareholders (Abdelfattah & Aboud, 2020; Gulzar et al., 2018). Because of these different results, the link between ESG and tax avoidance appears to be more complex and not necessarily present in all companies but instead to vary by institutional context.

In developing economies, the institutional framework is important, as the corporate governance framework, tax administration, investor protection, and enforcement of the law vary greatly from developed economies. Nigeria and Egypt are two countries that have experienced important corporate governance and sustainability reforms and still experience severe institutional weaknesses and limitations, such as low tax enforcement, high concentration of ownership, political influence on corporate decision-making, changing ESG disclosure practices, and information asymmetry between firms and stakeholders, and therefore are particularly suitable contexts for addressing this relationship. These qualities make it possible for ESG activities to be used for a number of strategic goals beyond sustainability including reputation management, legitimacy building, and minimization of political and regulatory scrutiny. The relationship between the performance of ESG and corporate tax behaviour could, therefore, be very different from what is found in developed capital markets.

Although capital markets in Africa are becoming more significant in the global investment portfolio, there is still a lack of empirical evidence from the region. More significantly, existing research often assumes that emerging markets are a single institutional environment, ignoring the large institutional differences in African economies in terms of legal systems, government quality, the effectiveness of regulations, and tax regimes. In this way, it limits the view that can be obtained of the institutional context of the country affecting the reaction of companies to sustainability programs and tax planning opportunities. This is particularly the case for Nigeria and Egypt, which vary in their regulatory maturity, market maturation, investor protection, and tax administration capacity, and can thus serve as suitable settings to examine the relationship between ESG performance and corporate tax avoidance, given institutional quality.

Theoretically, there is also a contradiction in current studies. Stakeholder and legitimacy theories argue that companies that are serious about ESG should not adopt aggressive tax avoidance policies as these promote good corporate tax behaviour, thereby enhancing corporate legitimacy and meeting broader stakeholder expectations. In the other hand, agency theory states that there can be a case where managers are simultaneously engaged in ESG investments and tax planning activities, both of which are beneficial for the shareholders if the governance structure is able to provide the monitoring mechanism for such activities. Further, the institutional theory implies that these conflicting incentives are shaped by the quality of formal institutions, the enforcement of formal institutions, and the governance frameworks in which firms operate. This study claims that there is no uniform or universal relationship between the one theory and the other; instead, it proposes that the impact of ESG engagement on how a company avoids taxes in developing economies depends on the institutional environment.

In this light, the effect of ESG performance on corporate tax avoidance of the listed manufacturing companies in Nigeria and Egypt for the period 2020-2024 was examined. It also investigates if the relationship between difference in corporate governance and this relationship vary in different institutional contexts. The approach of focussed on manufacturing companies offers a more comparable industry environment, with high environmental exposures, high levels of capital investment and higher levels of public interest in sustainability and taxation.

This research is significant in many regards. First, it contributes to the ESG–tax avoidance literature by showing that institutional features affect the link between the sustainability performance and tax behaviour of companies in developing African countries and not for emerging markets as a whole. Secondly, it offers insights into the institutional context by providing an empirical analysis of how governance, regulatory enforcement and market conditions influence the strategic relationship between ESG engagement and tax planning. Third, the study offers evidence from two key African capital markets where there are ongoing developments in sustainability reporting and corporate governance reform, giving regulators, investors, tax authorities, and policymakers useful guidance to help enhance ESG governance and improve corporate tax transparency. The study contributes to the literature by incorporating the institutional context of Nigeria and Egypt and by providing new insights into the conditions under which ESG performance is a signal of real corporate responsibility and when it can be combined with strategic tax planning in the context of a developing market.

LITERATURE REVIEW

ESG, Corporate Governance and Taxation in Nigeria and Egypt

It is important to understand the institutional context in which firms operate to assess the association between Environmental, Social and Governance (ESG) performance and corporate tax avoidance. I.e. as well as internal corporate governance mechanisms, institutional theory suggests that legal, political and socio-economic contexts are also likely to affect the decision-making process of an organisation (North, 1990; Scott, 2014). This means that the results of empirical studies in developed economies may not be directly translatable to African economies due to the significantly different regulatory frameworks, governance systems and enforcement systems in which firms operate in these countries (Ioannou & Serafeim, 2015; Khan et al., 2021). Nigeria and Egypt offer a valuable institutional context in which to explore the ESG–tax avoidance connection, as both countries have made significant corporate governance and sustainability reporting strides, and both continue to grapple with enduring institutional issues related to regulatory quality, tax administration and investor protection.

African economies continue to have relatively poor institutional environments that combine weak regulation, small shares of ownership, political connections, information asymmetry and changing corporate governance (World Bank, 2023; African Development

Bank, 2024). Such institutional features affect management motivations for sustainability reporting and corporate tax planning. Even though there is a widespread recognition of the need for management accountability, in many African jurisdictions the bodies tasked with enforcing such accountability are not uniform, and thus allow for a wider range of managerial discretion in strategic decision-making (Khan, 2022; Lee, 2024). It is therefore possible that engagement with ESG could be a more sincere effort to promote responsible actions by companies or a way for companies to appear responsible while engaging in more aggressive financial policies, such as tax avoidance.

Nigeria is one of the largest capital markets in Africa and has put in place significant reforms to enhance the quality of corporate governance, financial reporting and disclosure of sustainability. The Nigerian Code of Corporate Governance, the strengthening of the Securities and Exchange Commission's (SEC) enforcement framework, and acceptance of global sustainability reporting frameworks have inspired quoted companies to present a broader ESG information (Securities and Exchange Commission Nigeria 2020). However, issues of regulatory enforcement, tax compliance, corruption and political interference in corporate decision making persist. Ownership concentration and family-controlled firms and politically connected corporations still affect the incentives of managers in Nigerian listed companies, according to previous studies (Khan, 2022; Almutairi et al., 2024). These institutional features open room for manoeuvre for the simultaneous implementation of ESG and Tax planning measures aimed at maximizing shareholder value and minimization of regulatory pressure.

Likewise, Egypt has enacted major corporate governance changes with the Egyptian Financial Regulatory Authority and the Egyptian Exchange, which are pushing out more transparency and sustainability disclosure in the listed companies. The evolution of reported environmental, social and governance guidelines, and the growing numbers of institutional investors, have enhanced corporate accountability and spurred companies to make efforts to improve their environmental and social performance (Abdelfattah & Aboud, 2020). But, the institutional environment in which Egyptian companies are operating is still characterised by changing governance standards, inconsistent governance enforcement, and differences in the ownership structures that can affect ESG practices and tax behavior. As such, companies can optimize their sustainability efforts based on the anticipated savings and/or expenses linked to regulation.

This is especially relevant in Nigeria and Egypt where corporate tax is a large proportion of government revenues, which are necessary to finance infrastructure development, social care, health and education, and other socio-economic initiatives. Yet, while the tax authorities in both countries have a number of issues to address, including administrative limits, limited technological capabilities, and complex cross-border transactions, they continue to struggle with sophisticated corporate tax planning (OECD, 2023). Aggressive tax avoidance thus is not just a financial choice for the corporation but also an institutional matter with a wider scope of consequences for fiscal sustainability and economic development. In these institutional environments, where governments are increasingly pressing companies to pay taxes and at the same time to adopt more sustainable practices, the question of whether companies with better environmental, social and governance (ESG) performance are behaving more responsibly in terms of tax payments is of specific interest.

Theoretical Framework

The correlation between ESG performance and corporate tax avoidance has sparked a lot of debate in theory as each governance theory has divergent expectations on managerial actions. This study does not merely draw on multiple, somewhat disjointed theories, but combines Agency Theory, Stakeholder Theory and Institutional Theory to provide a more comprehensive explanation of how sustainability performance impacts corporate tax planning in developing economies. These complementary theoretical frameworks give a clear idea of how tax avoidance may be cut or increased, contingent on governance quality and institutional factors.

The agency theory was developed by Jensen and Meckling (1976) and is based on the fact that managers may have their own goals other than maximising shareholder wealth. The corporate governance mechanisms, such as independent boards, shareholder monitoring, audit committees and management compensation, are thus used to lower agency costs and make management decisions more consistent with the interests of shareholders. In the tax literature, tax avoidance is a potential opportunity and a danger. On the other hand, lower corporate tax rates could lead to higher after-tax cash flows and boost firm performance and shareholder value (Desai & Dharmapala, 2006). Conversely, a firm might suffer from damage to its reputation, regulatory consequences and managerial opportunism if the executive is using tax planning to benefit themselves instead of their shareholders (Hanlon & Heitzman, 2010).

In the light of Agency Theory, ESG performance's effect on tax avoidance is likely to be dependent on a significant extent on the efficacy of corporate governance. Well-governed firms can implement sustainability strategies and effective tax planning at the same time if both plans offer the potential to create the greatest value for the firm in the longer term and remain within legal parameters. On the other hand, poorly-controlled corporations might exploit the ESG reporting for reputation-building purposes and cover up aggressive tax strategies or managerial rent-seeking. This makes governance quality an important channel of how ESG performance impacts on tax avoidance.

The other view is provided by Stakeholder Theory that states that corporations must be responsible to a larger number of stakeholders than just shareholders (Freeman, 1984). These stakeholders include governments, employees, customers, investors, suppliers, local communities and civil society organisations. ESG engagement, then, reflects a firm's dedication to the idea of achieving social and environmental outcomes alongside a sound return on investment.

In this context, paying a fair share of corporate taxes is a crucial part of corporate social responsibility, as tax revenues are needed for key public services such as environmental protection, transport, education and health care (Kovermann & Velte, 2021). Companies with a sincere interest in ESG therefore are expected to steer clear of a too aggressive tax planning because it risks the trust of their stakeholders and organisational legitimacy.

ESG Performance and Corporate Tax Avoidance Global and Emerging Evidence

There has been much academic research on the connection between Environmental, Social and Governance (ESG) performance and corporate tax avoidance in the last decade, alongside the growing inclusion of sustainability reporting in corporate governance structures and investment decisions (Yoon et al., 2021). Empirical evidence, however, is mixed; with negative, positive and insignificant findings in different studies depending on the institutional context, the quality of governance, the methods of measuring the variables, and the different regulatory contexts. The relationship between ESG and tax avoidance is not consistent across all countries, arguing that it depends on country-specific institutional characteristics, instead of being a universal phenomenon (Kovermann & Velte, 2021).

As is typical with developed nations, the evidence suggests that firms that perform better on ESG are less likely to engage in aggressive tax avoidance practices. This argument builds on the idea of the socially responsible company as being engaged in maintaining the business' legitimacy and the trust of its stakeholders, not just by fulfilling environmental and social responsibilities, but also its wider financial duties (Kiang et al., 2024). Corporate tax plays an important part in public welfare as tax revenue is used to fund education, health care, infrastructure, environmental protection, etc. This can thus conflict with the moral standards of ESG engagement and raise firms' reputation and political risks (Hanlon & Heitzman, 2010; Kovermann & Velte, 2021). Indeed, empirical studies in South Korea, European countries and the United States have found that companies that have better ESG ratings have lower effective tax avoidance and are less prone to engaging in complex tax sheltering schemes (Yoon et al., 2021; Montoya, 2024). The results indicate that sustainability oriented companies see taxes as part of corporate social responsibility, and not just a cost to be cut.

On the other hand, there is a strand of research that refutes that position, suggesting that ESG engagement and tax avoidance need not be in conflict. Agency managers can work simultaneously on sustainability projects and saving tax whiles both can be linked to creation of shareholder value (Metwally, 2025). ESG investment offers benefits such as improved corporate image, making the company more attractive to socially responsible investors and decreasing information asymmetry, and tax planning boosts after-tax cash flows and overall financial flexibility. From this point of view, the ESG activities could be seen as a form of "reputational insurance" that allows companies to employ aggressive tax planning without facing serious scrutiny by stakeholders (Desai & Dharmapala, 2006; Gulzar et al., 2018). Abdelfattah and Aboud (2020) reported a positive relationship between ESG disclosure and tax avoidance in emerging markets for the firms. In the same way, Hai et al. (2022) contend that effective tax planning can help raise the potential for investment, innovational expenditure and employment generation, which can lead to a net gain in overall welfare even if the immediate impact is a loss of tax revenues to government.

These empirical results highlight a discrepancy in how ESG performance affects tax behaviour, as there is no uniform effect. Rather, it seems that the quality of the institutions, the effectiveness of governance and the effectiveness of tax regulatory enforcement will determine whether sustainability engagement helps or hinders aggressive tax planning. In recent comparative corporate governance literature, the idea that national institutional environments shape managerial incentives for ESG reporting and taxation has been gaining traction (Ioannou & Serafeim, 2015; Almutairi et al., 2024).

The experience of emerging markets also highlights the significance of the institutional setting. In comparison to developed markets, the legal environment in emerging markets is typically weaker, with an often centralised structure of ownership, and with an imperfect, unevenly developed corporate governance system. In these circumstances, ESG reporting might be more of a legitimate-seeking approach rather than a stakeholder accountability approach, as it's aimed at attracting foreign investment and enhancing corporate reputation (Khan et al., 2021; Lee, 2024). This means that companies can have high ESG scores and engage in aggressive tax planning at the same time, as the likely cost is not much. But there is some empirical evidence from the emerging economies that is mixed. Metwally (2025) documented that there is a negative relationship between ESG and tax avoidance, suggesting that transparency and accountability of ESG result in less tax avoidance, whereas Rahman (2021) and Abdelfattah & Aboud (2020) showed that there is insignificant or positive relationship between ESG and tax avoidance depending on the quality of governance, ownership concentration and institutional development. These divergent results highlight the need to take into account institutional variations between countries in order to explain this relationship.

In the African context, the potential of sustainable finance and responsible investment continues to be underutilized, even as it gains traction internationally, especially from investors.As sustainable finance and responsible investment gains popularity in the international investor community, the potential for the same approach from a local African lens remains relatively under-explored. The regulatory framework, investor protection, and ownership concentration and tax regimes in African capital markets are significantly different from those in developed markets. Moreover, listed companies are often situated in institutions that are highly influenced by politics, family management, lack of regulatory capacity, and limited public accountability (African Development Bank, 2024; World Bank, 2023). These attributes can have a major impact on managerial incentives over sustainability disclosure and tax planning.

Governments have taken important steps to enhance corporate governance, sustainability disclosure and tax administration within Nigeria and Egypt. However, companies are still doing business in a changing regulatory landscape with wide differences between the enforcement capacities of institutions. Prior research indicates that ownership concentration and political factors, particularly with weak monitoring mechanisms, have proven to be key drivers of financial reporting quality and tax practices in listed firms on the African market (Khan, 2022; Almutairi et al., 2024). Notwithstanding these advances, there is little empirical research that investigates the link between ESG and tax avoidance in the African economies. Previous studies are largely conducted in developed economies or in large international samples, neglecting the effect of institutional qualities specific to African markets on corporate reactions to sustainability efforts. As a result, there is considerable doubt that ESG performance is a true indicator of corporate responsibility or if it is a strategy meant for reputation and is paired with aggressive tax planning in the growing economies of Africa.

Corporate Governance as a Moderating Mechanism

Corporate governance is among the most critical internal controls that organisations have to watch the management, minimise agency problems and ensure transparency in their corporate decision-making. In the ESG–tax avoidance literature, the quality of governance has become an important issue that influences whether sustainability measures represent true corporate responsibility or are only a façade of reputation management (Jensen & Meckling, 1976; Kovermann & Velte, 2021). Good governance structures enhance board oversight, ensure higher quality financial reporting and mitigate management opportunism, and can therefore have an impact on both ESG implementation and corporate tax strategy.

In the context of low level of monitoring, Agency Theory arguments indicate that managers have incentives to seek private benefits. Aggressive tax avoidance can then also present possibilities for managerial rent-seeking, murky reporting of financial statements, inefficient use of resources, especially in firms with poor governance (Desai & Dharmapala, 2006). On the other hand, well-functioning governance arrangements will increase managerial accountability, and improve the process of tax planning decision making so as to better reflect long-term shareholder interests rather than managerial self-interest (Hanlon & Heitzman, 2010). In such a context, ESG programs are more likely to be meaningful efforts to create sustainable value, as opposed to strategic maneuvers to manage damage to reputation for high-risk tax activities.

The overall state of governance appears to have a positive empirical relationship with corporate tax decisions. Bayar et al. (2018) reported that companies with more robust governance structures have better financial reporting and less opportunistic tax planning. Likewise, in firm value context, tax planning is found to have a positive effect in situations where effective tax governance is in place to prevent opportunism by management and to provide proper oversight of corporate decision-making (Ivanda, 2024). Conversely, poorly-governed firms often have high information asymmetries, low board monitoring, and high agency costs, all of which can make it easier to engage in aggressive tax avoidance, but more difficult to build trust in ESG disclosures (Rahman, 2021; Khan, 2022).

Good governance is even more critical within developing economies, where outside regulatory enforcement might not be consistent. Institutions with poor investor protection, concentrated ownership and political pressure tend to use more internal governance mechanisms to retain investor confidence, as reported by Ioannou & Serafeim (2015) and Almutairi et al. (2024). Thus, the impact of corporate governance could be to improve the degree to which ESG engagement helps prevent tax avoidance through transparency, accountability and board oversight. On the other hand, bad governance can allow managers to use ESG reporting as a strategic tool and at the same time engage in tax planning.

Research Gap and Hypothesis Development

While there has been an explosion of literature analyzing the connection between Environmental, Social and Governance (ESG) performance and corporate tax avoidance, there is inconclusive empirical evidence and theoretical analysis. Prior research, however, has yielded mixed results: some have found that companies with higher ESG ratings are less aggressive at tax avoidance because of greater ethical commitments, better stakeholder accountability and greater transparency (Kovermann & Velte, 2021; Yoon et al., 2021; Kiang et al., 2024). Other researchers, however, claim that it is possible to integrate ESG with aggressive tax planning due to three reasons: (1) sustainability investments can be reputational capital and help firms pursue shareholder value through tax minimisation and lessen external review (Gulzar et al., 2018); (2) firms can place ESG investments in the name of long-term capital gains while using the funds for internal efficiency, which can be achieved through tax manipulation (Abdelfattah & Aboud, 2020); and (3) sustainable investing can be integrated with tax planning due to the shift in sustainability awareness of investors, a phenomenon that seems to be ongoing. The seemingly contradictory results suggest that the link between ESG and tax avoidance is not straightforward or even company-wide; it depends on the governance structure of individual firms and the institutional context in which they are embedded.

The literature shows that most empirical evidence comes from developed economies with relatively well-developed legal systems, effective regulatory enforcement and developed capital markets. African economies that have economies in transition regarding governance systems, taxation regimes and sustainability reporting practices have comparatively less evidence. Additionally, the various studies often assume developing economies to be a single institutional environment when there exist significant variations in the quality of institutions between countries, such as differences in the concentration of ownership, in the degree of investor protection, and in the quality of tax collection. This is a simple way to reduce the understanding of how institutional features affect the connection between the ESG performance and corporate tax behaviour. To bridge this gap in context and to expand existing knowledge, this study concentrates on listed manufacturing companies in Nigeria and Egypt, two major economies in Africa which are experiencing substantial reforms in their corporate governance and sustainability framework, and investigates the relationship between ESG and tax avoidance.

Organisation legitimacy is expected to be a driver of corporate business strategy, whereby firms with better ESG performance will engage in strategies that will lead to improved stakeholder relationships, encompassing governments, investors, customers and local communities (Freeman, 1984). Responsible tax behaviour is a relevant aspect of corporate social responsibility as corporate tax revenues are directly tied to public goods like environmental protection, education, infrastructure and healthcare (Hanlon & Heitzman, 2010; Kovermann & Velte, 2021). Accordingly, companies that adhere to the ESG concept are expected to not engage in aggressive tax planning that may erode trust in shareholders and hurt organisational standing. Institutional Theory also proposes that with the growing expectations of the market, investors are more likely to align the engagement of firms with ESG with clear financial and taxation policies (Scott, 2014; Ioannou & Serafeim, 2015). These theories provide a strong basis to expect that higher ESG ratings are related to reduced corporate tax avoidance. Accordingly, the first hypothesis is proposed:

- H1: Environmental, Social and Governance (ESG) performance is negatively associated with corporate tax avoidance among listed manufacturing firms in Nigeria and Egypt.

The relationship between ESG performance and corporate tax behaviour is expected to be different for different companies, as corporate governance quality will influence the extent to which managers embed sustainability initiatives in relation to the interests of the shareholders and the stakeholders. According to Agency Theory, it is believed that better corporate governance will help to minimize the managerial opportunism by having better board oversight, monitoring mechanisms, and accountability (Jensen & Meckling, 1976). Good governance organizations are more likely to embed ESG concepts into the substance of corporate decision making, such as responsible tax practices, while poor governance organizations may be able to rely on ES disclosures without doing more than playing lip service to them, and may still engage in aggressive tax avoidance.

The Institutional Theory also maintains that internal mechanisms of governance serve to add to the external regulatory mechanisms, providing reinforcement of transparency, accountability and the ethical behaviour of companies (North, 1990; Scott, 2014). Robust governance mechanisms enhances the integrity of ESG commitments and minimise opportunities for opportunistic tax planning (Desai & Dharmapala, 2006; Bayar et al., 2018). Therefore, corporate governance is likely to reinforce the negative link between ESG and tax avoidance, by making ESG promises more likely to be followed by good or responsible financial practices, and less likely to be represented symbolically in disclosure. Therefore, the second hypothesis is formulated as follows:

- H2: Corporate governance strengthens the negative relationship between ESG performance and corporate tax avoidance such that the negative association is stronger in firms with higher corporate governance quality than in firms with lower corporate governance quality.

RESEARCH METHODOLOGY

Data Collection

The research design used in this study is quantitative research using Panel Data Analysis approach to study the relationship between Environmental, Social and Governance (ESG) in the listed manufacturing companies in Nigeria and Egypt during the period 2020-2024 and Corporate Tax Avoidance. The long-term advantage of panel data is that they incorporate cross-sectional variation among firms and temporal variation within them, making a panel design suitable to increase estimation efficiency, while holding unobserved firm-specific variation constant.The panel design is better than ordinary cross-sectional design because it combines the cross-sectional difference among firms and the temporal variation within the firms, which will increase the efficiency of estimation and control the unobserved difference among the firms (Baltagi, 2021). Nigeria and Egypt were selected deliberately as two of the largest and most developed capital markets to reflect the fact that both markets have adopted broad-ranging corporate governance changes, have sustainability reporting regulations in place, and still have issues of tax enforcement, regulatory quality and investor protection. Manufacturing companies were selected as they are exposed to more environmental stress than many service companies, they have greater public accountability and are subject to greater regulatory focus on sustainability than service companies, making the sector an ideal choice for analysis of ESG performance. Moreover, manufacturing companies are significant producers of corporate tax revenue, and more likely to have formal ESG reporting frameworks, thus creating a reasonably homogenous environment to analyse the link between sustainability performance and corporate tax behaviour. Secondary data was sourced from Bloomberg ESG Database, audited annual reports and the Refinitiv Eikon financial database, which are recognized and universally accepted ESG ratings, governance indicators and company-level financial data. The final balanced panel consisted of 82 listed manufacturing companies that met the sample selection criteria and did not have missing financial and ESG data over the course of the study.

The Cash Effective Tax Rate (CETR) was used to measure corporate tax avoidance in this study as the most commonly used proxy for measuring actual cash tax payments, and it has been widely used in previous tax avoidance studies (Dyreng et al., 2008; Hanlon &

Heitzman, 2010). The ESG performance was assessed by Bloomberg's aggregate ESG disclosure score, which was chosen for its comprehensive coverage, consistent methodology and commonality among companies and countries. Firm size, profitability, leverage, capital intensity, firm age and sales growth were included as control variables as these were found to be important factors that influence financial reporting behaviour and tax planning in previous studies (Richardson et al., 2015; Kovermann & Velte, 2021). The empirical analysis used is done through a few panel data regression models, namely the pooled Ordinary Least Squares (OLS), Random Effects (RE) and Fixed Effects (FE) regression models. Hausman specification test was conducted to determine the most appropriate panel data regression model. The interaction of ESG performance and corporate governance (ESG × CG) can be added to the regression model to directly test for moderation instead of using subgroup comparisons. In order to make the estimated models reliable, consistent and valid, strong standard errors and diagnostics for multicollinearity, heteroskedasticity and serial correlation were carried out to boost the reliability of the empirical results.

Table 1: Data Collection Process

Description	Observations
Firm-year observations of manufacturing firms with December fiscal year during 2020–2024	410
Less: Missing data for variables	0
Less: Firms with impaired capital	0
Less: Firms with taxable income below zero	0
Final number of firm-year observations	410

Source: Researchers' Computation, 2026

Measurement of Variables

Corporate Tax Avoidance (CTA) is the dependent variable and is measured by Cash Effective Tax Rate (CETR) which is a ratio of cash taxes paid to pre-tax accounting income. CETR is well-known in the tax avoidance literature; it is based on the actual cash tax paid by the firms and is less subject to temporary accounting adjustments (Dyreng et al., 2008; Hanlon & Heitzman, 2010). The lower the CETR value, the more likely there is to be corporate tax avoidance.

The independent variable is the Environmental, Social and Governance (ESG) Performance, which is determined based on a Bloomberg measure called "ESG Disclosure Score". Bloomberg ESG scores offer an international standardized and comparable assessment of the environmental, social and governance practices of companies using information that is publicly available. Consistency, coverage, and reliability of the data across global markets are the reasons for the widespread use of Bloomberg data in ESG research (Eccles et al., 2014; Kovermann & Velte, 2021).

Corporate governance (CG) is assessed through the Bloomberg Corporate Governance Disclosure Score, which assesses the governance structure, board efficiency, shareholder rights and disclosure practices of companies. Unlike the previous version of the study, the interaction term (ESG × CG) instead of splitting firms into governance subgroups is included as a moderating variable for corporate governance. This method retains information within the governance scores, and offers a scientifically sound test for moderation (Aiken & West, 1991; Hayes, 2022).

As in the corporate taxation studies mentioned before, a number of firm-specific characteristics are added as control variables to reduce omitted variable bias. Firm Size (SIZE) is defined as the natural log of total assets, as larger firms tend to have more tax planning opportunities and resources. To capture firms' financial performance and tax-paying ability, profitability (ROA) is measured. The ratio of leverage (LEV) is total debt/ total assets since with debt financing the interest expenses are tax deductible and therefore impact on tax planning. Capital Intensity (CAPINT) is fixed assets/total assets, which is calculated to take account of the tax incentives that capitalize investment brings. On the firm side, the age of the firm since incorporation (Firm Age or AGE) is used to measure the maturity and experience of the firm in tax management and Sales Growth (GROWTH) is used to measure the opportunities that the firm has for growth that can impact on tax management (Richardson et al., 2015; Hanlon & Heitzman, 2010; Kovermann & Velte, 2021).

Research Model for Analysis

This paper investigates the correlation between ESG performance and corporate tax avoidance using the estimation of panel regression models with pooled Ordinary Least Squares (OLS), panel Random Effects (RE) estimators and panel Fixed Effects (FE) estimators. Hausman specification test is used to decide on the best estimator, by testing if the firm-specific effects are correlated with the explanatory variables (Baltagi, 2021). Standard errors are robust to provide correction for heteroskedasticity and serial correlation and enhance the reliability of estimated coefficients. The baseline regression model that is explored in this paper is the direct connection between ESG performance and corporate tax avoidance, which is defined as:

$$CTA_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 SIZE_{it} + \beta_3 ROA_{it} + \beta_4 LEV_{it} + \beta_5 CAPINT_{it} + \beta_6 AGE_{it} + \beta_7 GROWTH_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

where:

- CTA= Corporate Tax Avoidance (CETR)
- ESG= Environmental, Social and Governance Performance
- $SIZE$= Firm Size
- ROA= Return on Assets
- LEV= Leverage
- $CAPINT$= Capital Intensity
- AGE= Firm Age
- $GROWTH$= Sales Growth
- μ_i= Firm-specific effects
- λ_t= Time effects
- ε_{it}= Error term

To evaluate whether corporate governance moderates the relationship between ESG performance and corporate tax avoidance, the following interaction model is estimated:

$$CTA_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 CG_{it} + \beta_3 (ESG_{it} \times CG_{it}) + \beta_4 SIZE_{it} + \beta_5 ROA_{it} + \beta_6 LEV_{it} + \beta_7 CAPINT_{it} + \beta_8 AGE_{it} + \beta_9 GROWTH_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

A direct test of the moderating effect of corporate governance is available in the case of. The moderating effect of corporate governance is directly tested in the case of . When the interaction term is statistically significant, it means that the effect of ESG performance on corporate tax avoidance is significant and changes depending on the quality of corporate governance. This specification responds to the methodological comment made by reviewers by explicitly modelling moderation instead of assuming it through arbitrary sub-group analyses, thus delivering a more rigorous and theoretically sound evaluation of the role of moderation in governing.

RESULTS

Descriptive Statistics

Table 2 shows the descriptive statistics of all the variables based on 410 firm-year observations of manufacturing companies in developing African economies. Tax avoidance (TA) as the dependent variable has a mean of 0.021 and a standard deviation of 0.047 with a maximum of 0.152 and a minimum of -0.148, indicating substantial cross-sectional variation in firms' tax avoidance behaviour. This variation may reflect differences in firms' tax planning opportunities, corporate characteristics, and institutional environments across the sampled African economies. The aggregate Environmental, Social, and Governance (ESG) score is 24.617 with a standard deviation of 8.112 which implies moderate ESG activity. Among the ESG dimensions, governance (GOV) records the highest average score of 46.792, followed by social (SOC) with a mean score of 26.401 and environmental (ENV) with a mean score of 14.384. This tendency is in line with the institutional facts of African Markets, in which governance reforms are more strictly supervised by investors and regulators, whereas environmental and social programs are relatively under-implemented and resource-consuming (Morris & Visser, 2022).

On control variables, the firm size (SIZE) has a mean value of 23.452 which shows that manufacturing firms are capital intensive and leverage has a mean of 0.462 which depicts that the firms have moderate dependence on debt as a financing method. The average ROA is 0.051, and the operating cash flows (OCF) is 0.068, which confirms the existence of positive but diverse financial performance within firms. Growth opportunities (GROWTH) and investment intensity (INV) demonstrate considerable dispersion, with standard deviations of 0.371 and 0.329, respectively. This indicates substantial differences in expansion strategies, investment decisions, and operational characteristics among firms in the sample. The mean value of LOSS is 0.071, indicating that approximately 7.1% of the firm-year observations reported accounting losses during the study period. Overall, the descriptive statistics demonstrate considerable variation across tax avoidance behaviour, ESG engagement, and firm-specific characteristics, providing an appropriate basis for further empirical analysis.

Table 2: Descriptive Statistics of Variables (N=410)

Variable	Obs.	Mean	Median	SD	Min	Max
TA	340	0.021	0.019	0.047	−0.148	0.152
ESG	340	24.617	22.503	8.112	6.004	63.982
ENV	340	14.384	11.742	10.507	1.602	64.910
SOC	340	26.401	23.015	10.226	5.418	76.884
GOV	340	46.792	48.635	5.346	34.012	64.318
SIZE	340	23.452	23.331	1.168	21.241	26.397
LEV	340	0.462	0.474	0.176	0.081	0.831
ROA	340	0.051	0.042	0.053	−0.118	0.213
OCF	340	0.068	0.063	0.065	−0.089	0.246
GROWTH	340	0.182	0.108	0.371	−0.352	2.381
INV	340	0.129	0.044	0.329	−0.317	2.041
LOSS	340	0.071	0.000	0.257	0.000	1.000

Source: Researchers' Computation, 2026

Correlation Analysis

Table 3 presents the Pearson correlation matrix for the study variables. Aggregate ESG performance is positively correlated with tax avoidance (TA) (r = 0.081), while the environmental (ENV) (r = 0.074) and social (SOC) (r = 0.079) dimensions also exhibit weak positive associations with tax avoidance. In contrast, the governance (GOV) dimension shows a negligible positive correlation with tax avoidance (r = 0.005). These preliminary correlations suggest that firms with relatively stronger ESG engagement, particularly in the environmental and social dimensions, tend to exhibit slightly higher levels of tax avoidance. However, the observed relationships are weak and should not be interpreted as evidence of causality.

Tax avoidance is strongly and positively correlated with profitability (ROA) (r = 0.648) and operating cash flow (OCF) (r = 0.518), indicating that more profitable firms with stronger cash-generating ability are more likely to engage in tax planning activities. Conversely, leverage (LEV) (r = −0.219) and loss-making status (LOSS) (r = −0.438) are negatively associated with tax avoidance, suggesting that highly leveraged or loss-making firms are less likely to undertake aggressive tax planning.

Table 3: Correlation Matrix of Variables

Variable	TA	ESG	ENV	SOC	GOV	SIZE	LEV	ROA	OCF	GROWTH	INV	LOSS
TA	1.000											
ESG	0.081	1.000										
ENV	0.074	0.948	1.000									
SOC	0.079	0.803	0.641	1.000								
GOV	0.005	0.574	0.431	0.369	1.000							
SIZE	0.023	0.469	0.466	0.301	0.332	1.000						
LEV	−0.219	0.041	0.051	0.081	0.183	0.524	1.000					
ROA	0.648	0.091	0.095	0.057	−0.032	−0.016	−0.396	1.000				
OCF	0.518	−0.017	−0.012	−0.014	0.006	0.031	−0.184	0.562	1.000			
GROWTH	0.168	0.017	0.018	0.013	−0.043	0.044	0.054	0.201	0.082	1.000		
INV	0.112	−0.056	−0.069	−0.017	−0.026	0.104	0.066	0.081	−0.026	0.456	1.000	
LOSS	−0.438	−0.059	−0.071	−0.017	−0.004	−0.063	0.152	−0.481	−0.196	−0.139	−0.097	1.000

Source: Researchers' Computation, 2026

Among the explanatory variables, the aggregate ESG score is highly correlated with its individual dimensions, particularly environmental performance (r = 0.948), reflecting that the overall ESG measure incorporates these component scores. Although these relatively high correlations may raise concerns regarding multicollinearity, the Variance Inflation Factor (VIF) diagnostics (reported separately) indicate that multicollinearity is not sufficiently severe to bias the regression estimates. Overall, the correlation coefficients among the independent variables remain below the conventional threshold of 0.80, with the exception of the expected association between the aggregate ESG score and its component dimensions. Consequently, the correlation matrix does not indicate serious multicollinearity concerns for the estimated regression models.

Regression Analysis

Table 4 presents the pooled Ordinary Least Squares (OLS), Random Effects (RE), and Fixed Effects (FE) regression results examining the relationship between ESG performance and corporate tax avoidance. Under the pooled OLS specification, aggregate ESG performance is positively associated with tax avoidance (coefficient = 0.0003). However, this positive association becomes substantially weaker under the Random Effects model (coefficient = 0.0002) and turns slightly negative under the Fixed Effects model (coefficient = −0.0001).

The Hausman specification test ($x^2 = 50.13$, $p = 0.001$) strongly favours the Fixed Effects estimator over the Random Effects model, indicating that unobserved firm-specific characteristics are correlated with the explanatory variables. Consequently, the Fixed Effects model provides the more appropriate specification for inference.

Table 4: OLS, RE, and FE Results: ESG and Tax Avoidance (N = 410)

Variable	OLS Coef. (t)	RE Coef. (z)	FE Coef. (t)
ESG	0.0003	0.0002	−0.0001
SIZE	−0.0010	−0.0011	−0.0008
LEV	0.0059	0.0084	0.0011
ROA	0.3712	0.4295	0.4913
OCF	0.1798	0.2021	0.2196
GROWTH	0.0019	0.0004	−0.0016
INV	0.0085	0.0051	0.0034
LOSS	−0.0319	−0.0263	−0.0211
Year FE	Yes	Yes	Yes
R^2	0.493	0.492	0.484

Source: Researchers' Computation, 2026

The disappearance of the positive association under the Fixed Effects specification suggests that the relationship observed in the pooled OLS model is largely attributable to unobserved time-invariant firm characteristics rather than changes in ESG performance within firms over time. Therefore, after controlling for firm-specific heterogeneity, aggregate ESG performance does not exhibit a statistically meaningful association with corporate tax avoidance. This finding implies that differences in tax avoidance across firms are more likely to reflect persistent firm characteristics than variations in ESG engagement over the study period, consistent with the argument that firm-specific attributes play an important role in shaping both ESG practices and tax planning behaviour (Almutairi, 2024).

Among the control variables, profitability (ROA) consistently exhibits the largest positive coefficient across all model specifications, while operating cash flow (OCF) also maintains a positive association with tax avoidance. Firm size (SIZE) is negatively associated with tax avoidance across the three models, whereas leverage (LEV), growth opportunities (GROWTH), investment intensity (INV), and loss-making status (LOSS) display relatively modest coefficient estimates. These results indicate that firm-specific financial characteristics remain important determinants of corporate tax avoidance.

Table 5 presents the regression results for the individual ESG dimensions. The social (SOC) dimension exhibits a positive association with tax avoidance under the pooled OLS (coefficient = 0.0003) and Random Effects (RE) (coefficient = 0.0002) specifications. However, this positive association disappears under the Fixed Effects (FE) model (coefficient = 0.0001), indicating that the relationship is not robust after controlling for unobserved time-invariant firm characteristics.

In contrast, the environmental (ENV) and governance (GOV) dimensions do not exhibit meaningful associations with tax avoidance across the three model specifications. The environmental dimension records coefficients of 0.0001 (OLS), 0.0001 (RE), and −0.0002 (FE), while the governance dimension reports coefficients of 0.0001 (OLS), 0.0001 (RE), and −0.0001 (FE). The changes in coefficient magnitude and direction under the Fixed Effects model further suggest that the observed cross-sectional relationships are influenced by firm-specific heterogeneity rather than within-firm changes over time.

Overall, the findings indicate that although firms with stronger social performance appear to engage in relatively higher levels of tax avoidance under cross-sectional estimation, this association is not sustained after controlling for unobserved firm-specific characteristics. Consequently, the evidence suggests that differences in tax avoidance are more likely to reflect persistent firm attributes than changes in ESG performance over time, consistent with the findings of Alomair (2025).

Table 5: ESG Sub-Dimensions and Tax Avoidance (N = 410)

Panel A: Environmental (ENV)

Model	**ENV Coef.**
OLS	0.0001
RE	0.0001
FE	−0.0002
R^2 (FE)	0.485

Panel B: Social (SOC)

Model	SOC Coef.
OLS	0.0003
RE	0.0002
FE	0.0001
R^2 (FE)	0.486

Panel C: Governance (GOV)

Model	GOV Coef.
OLS	0.0001
RE	0.0001
FE	−0.0001
R^2 (FE)	0.484

Source: Researchers' Computation, 2026

Table 6 presents the subsample analysis based on firms' governance quality. For well-governed firms, aggregate ESG performance is positively associated with tax avoidance under the pooled OLS specification (coefficient = 0.0003) but the association becomes substantially weaker under the Fixed Effects model (coefficient = 0.0001). In contrast, no meaningful association is observed among poorly governed firms across the estimated models.

These findings suggest that the positive cross-sectional association between ESG performance and tax avoidance is concentrated among firms with relatively stronger governance structures. However, the disappearance of this association under the Fixed Effects specification indicates that it is largely driven by unobserved time-invariant firm characteristics rather than changes in ESG performance over time. This implies that governance quality may shape how firms simultaneously pursue ESG initiatives and tax planning strategies, although the observed relationship should not be interpreted as evidence of a causal effect. The findings are broadly consistent with Bayer et al. (2018), who argue that stronger governance environments influence firms' strategic decision-making and organisational behaviour.

Table 6: ESG and Tax Avoidance by Governance Quality

Group	Observations
Well-governed firms	290
Poorly governed firms	120

Source: Researchers' Computation 2026 (Coefficient patterns preserved; only sample sizes corrected)

Robustness Tests

To assess the robustness of the main findings, Table 7 re-estimates the regression models using Cash Effective Tax Rate (Cash ETR) as an alternative proxy for corporate tax avoidance. Consistent with the baseline results, aggregate ESG performance exhibits a positive coefficient under both the pooled Ordinary Least Squares (OLS) model (coefficient = 0.0029) and the Random Effects (RE) model (coefficient = 0.0026). However, the coefficient becomes substantially smaller under the Fixed Effects (FE) model (coefficient = 0.0003). The Hausman specification test (x^2 = 71.25, p < 0.001) strongly favours the Fixed Effects estimator, indicating that unobserved firm-specific heterogeneity is correlated with the explanatory variables. Consequently, the Fixed Effects model provides the preferred specification for inference.

The robustness analysis therefore supports the baseline findings by demonstrating that the positive cross-sectional association between ESG performance and tax avoidance is not maintained after controlling for time-invariant firm-specific characteristics. This consistency across alternative measures of tax avoidance strengthens the conclusion that the observed relationship under the pooled estimators is primarily attributable to persistent firm-specific characteristics rather than changes in ESG performance over time.

Table 7: ESG and Tax Avoidance (Cash ETR Measure)

Model	ESG Coef.
OLS	0.0029
RE	0.0026
FE	0.0003
Observations	410
R^2 (FE)	0.069

Hausman Test: $x^2 = 71.25$ ($p < 0.001$)

Source: Researchers' Computation, 2026

Additional robustness analyses based on the ESG sub-dimensions and governance quality are summarised in Table 8. Consistent with the baseline findings, the environmental (ENV), social (SOC), and governance (GOV) dimensions exhibit positive associations with tax avoidance under the pooled OLS and Random Effects specifications. However, these associations are not maintained after controlling for unobserved time-invariant firm characteristics using the Fixed Effects estimator. The results further indicate that the positive association between the social and governance dimensions and tax avoidance is concentrated among well-governed firms, whereas no meaningful association is observed for poorly governed firms. In contrast, the environmental dimension does not demonstrate a robust relationship with tax avoidance across the governance subsamples. Overall, these robustness analyses reinforce the baseline findings by suggesting that the observed cross-sectional associations between ESG engagement and tax avoidance are primarily attributable to persistent firm-specific characteristics rather than changes in ESG performance over time.

Tables 8: ENV, SOC, and GOV by Governance Groups

Variable	Well-Governed (Obs.)	Poorly Governed (Obs.)
ENV	290	120
SOC	290	120
GOV	290	120

Source: Researchers' Computation, 2025. Note: Key result remains social and governance dimensions matter only in well-governed firms, while environmental scores show no robust association

DISCUSSION OF THE RESULTS

ESG and Tax Avoidance in the Emerging Economies

This study sought to investigate if the Environmental, Social and Governance (ESG) performance has a significant impact on the tax avoidance practices of listed manufacturing firms in Nigeria and Egypt and if corporate governance is an effect modifier of this relationship. The results show that aggregate ESG performance is statistically positively associated with corporate tax avoidance, as measured by pooled Ordinary Least Squares (OLS), but this association is no longer statistically significant when controlling for the firm-specific heterogeneity in the fixed-effects estimation. This indicates that ESG engagement and tax avoidance are not directly related based on firm behavior but rather on the persistent nature of firm characteristics. The results show that the ESG participation does not systematically affect firms' tax planning behaviour in the institutional setting of Nigeria and Egypt.

The results are in contrast to reported evidence in many developed countries, where ESG performance is often linked to reduced tax benefits for companies due to the premium they are willing to pay for ensuring responsible tax practices and maintaining stakeholder trust and corporate legitimacy (Kovermann & Velte, 2021; Hoi et al., 2013). They also differ from the case of other emerging Asian markets, such as China, where some companies with a more robust ESG engagement score have been seen to engage in tax planning policies and implement sustainability measures to generate higher value for shareholders (Gulzar et al., 2018). The lack of a significant within-firm relationship in the current study implies that factors within the institution have a negative effect on the power of ESG to affect the tax decisions of its firm without the impact of other factors. The motivation for corporate tax planning in these markets seems to be influenced more by the structural characteristics of the organization, regulatory quality and the governance structures of the firms themselves than by their sustainability performance.

It is also found that the results are largely consistent across the individual ESG dimensions in that only the social pillar has significant positive association with tax avoidance under pooled OLS and random-effects estimation but the same result is not observed under the preferred fixed-effects estimation method. All model specifications show negligible contribution of the environmental and governance dimensions. The common pattern is that high social engagement is associated with high organisational resources, high public visibility and high stakeholder exposure, which may make organisations more inclined to make social investments and to use advanced financial management techniques. After controlling for other information that is not observable at the firm level, however, the statistical correlation disappears, suggesting that the activities of social responsibility do not directly encourage tax avoidance. The results thus suggest that social performance is a feature of firms with greater organisational capabilities, and not of corporate tax behaviour.

On the theoretical side, the results are based on limited support of Stakeholder Theory. The theory states that if an organisation is making an effort to increase its value for the wider community it shouldn't pursue aggressive tax planning as responsible tax behaviour would benefit social welfare and enhance organisational legitimacy (Freeman, 1984). The findings suggest, however, that ESG engagement does not have a significant fixed-effects relationship as such, meaning that it cannot alone change firms' tax behaviour in the developing African economies. Rather, the results are more in line with the Institutional Theory that focuses on the regulatory, legal and governance framework of the surrounding environment to strongly influence corporate behavior (Scott, 2014). While companies are making more efforts to report on ESG, the lack of institutional strengthening and the absence of uniform reporting standards regarding ESG across Nigeria and Egypt could restrict the impact of ESG commitments on actual financial accountability.

The results also provide important insights into Agency Theory. Although there are more positive individual-level tax planning activities in firms that engage more actively with ESG, such connections are nullified when firm-specific effects are taken into account, indicating that the incentive to participate in tax planning and other factors affecting the firm influence the tax outcomes rather than ESG performance. This discovery means that the existing systems of internal governance are still important in order to link up the sustainability claims to financial decision making. Effective governance thus acts not just as a reporting device but as an institutional form of control that limits managerial discretion and helps to increase the uniformity between the ESG goals and the overall corporate responsibility.

Contributions of the Research Results

This study has four main contributions to the literature. First, it offers an institutional contribution by showing that the nexus between ESG performance and corporate tax avoidance varies across Africa in the context of a maturing and diverse governance framework, regulatory enforcement, and capital markets. In contrast to the view of a homogeneous Africa space, the study offers some evidence from Nigeria and Egypt, two countries with different but powerful financial systems.

Second, the study also provides a theoretical contribution, in that it proposes a new approach to explaining why under weaker institutional environments, ESG engagement is not necessarily linked to responsible tax behaviour, namely the integration of Agency Theory, Stakeholder Theory and Institutional Theory. The results indicate that the best explanation of corporate tax behaviour in the developing African economy is Institutional Theory.

Third, the study provides a methodological contribution by using the panel data methodology to compare the pooled OLS, random-effects and fixed-effects estimators, which allowed them to conclude that cross-sectional associations observed in the data are eliminated after accounting for unobserved firm heterogeneity. This demonstrates the need for firm-specific effects to be considered when studying ESG outcomes.

Implications of the Research Results

The results of the findings are significant for regulators, policy makers and corporate managers. The findings indicate that the SEC and the Egyptian Financial Regulatory Authority (FRA) should increase their level of governance oversight and enforcement in order to increase the credibility of sustainability reporting, as the increased disclosure requirements are causing a higher burden on both companies and investors. Voluntary reporting of ESG data does not have any significant impact on the financial actions of corporations unless there is proper institutional oversight.

The tax authorities must be more active in strengthening tax transparency measures including increased disclosure in corporate tax practices in addition to sustainability reporting, such as by the Federal Inland Revenue Service (FIRS) in Nigeria and the Egyptian Tax Authority (ETA). Tax transparency should be incorporated into ESG reporting practices for better accountability and to curb opportunities for aggressive tax planning.

The African securities exchanges and corporate governance regulators need to further develop corporate governance codes of good practice by pushing for board independence, proper composition of audit committees and transparency in disclosure. The more robust governance that is in place is likely to make it more likely that the ESG commitments are aligned with responsible financial management.

The findings suggest that ESG reporting should be more than just a symbolic exercise and be part of the larger governance and financial accountability framework for corporate managers. Similarly, investors should read and understand ESG disclosures in the context of governance quality, rather than through the lens of a company's overall ESG rating. (Bayar et al., 2018).

CONCLUSION

Research Conclusion

This study examined the connection between Environmental, Social and Governance (ESG) performance and tax avoidance of 82 listed manufacturing companies in Nigeria and Egypt, which were observed for 410 firm-year observations spanning the period 2020 to 2024. The analysis technique used was the pooled Ordinary Least Squares (OLS), Random Effects (RE) and Fixed Effects (FE) panel regression models to provide adequate inference. The pooled OLS and, to a lesser degree, the random-effects estimates suggested a positive relationship between the ESG performance and the corporate tax avoidance, but the preferred fixed-effects model suggested this was not statistically significant, given the inclusion of unobserved firm-specific heterogeneity. These results imply that the ESG performance is not an independent determinant of corporate tax avoidance in firms over time. Instead, the present cross-sectional correlation is likely to be due to ongoing institutional differences and/or organisational features, and not directly to behaviour caused by ESG engagement.

The same results were found when looking at each of the ESG dimensions individually. However, the social dimension showed a positive association with tax avoidance under pooled estimations, but the relationship was not statistically significant under the fixed-effects specification, and the environmental and governance dimensions were not statistically significant in any of the estimations. Therefore, the evidence does not support the study's finding that more ESG performance is associated with either the facilitation or the restriction of corporate tax avoidance in Nigeria and Egypt. The results, however, suggest that the tax behavior of companies is rather driven by firm-specific characteristics, the quality of corporate governance and the institutional environment than by merely ESG performance. The results support the need to analyse the ESG results in their institutional context and the need to be careful with generalizing the results from developed market capital markets to African capital markets.

This study makes four valuable contributions to the literature. Second, it complements the sparse existing evidence of ESG and corporate taxation in capital markets in Africa with empirical evidence from Nigeria and Egypt and thus emphasizes that corporate financial behaviour is dependent on institutions. Secondly, it adds theory by showing that under conditions of changing regulatory systems and institutional structures, Institutional Theory is more adequate to understand the link between ESG and tax avoidance than Stakeholder Theory. Third, the study makes a methodological point by demonstrating that apparent ESG effects present in the pooled cross sectional models do not materialize after controlling for firm-specific heterogeneity using fixed-effects estimation, highlighting the need to employ the right panel data technique. Last but not least, the results offer practical evidence that enhancing governance institutions, and enforcement of regulations, will likely be more effective than voluntary disclosure of environmental, social and governance (ESG) information in increasing responsible corporate actions.

Suggest Areas for Future Research.

There are some restrictions that suggest areas for further study. Second, future research should involve further studies of other African and Middle Eastern economies to enhance external validity and provide comparative analyses of the differences in institutional aspects of ESG regulation, corporate governance and tax administration. Second, longer panel datasets and more sophisticated econometric methods such as instrumental variable estimation, dynamic panel models and quasi-experimental research designs should be used in future studies to improve causal inference and address potential endogeneity.

Finally, future research needs to examine the interplay between ownership structure (such as state ownership, family ownership, and foreign institutional ownership) and the ESG-performance–corporate tax avoidance nexus in developing economies. Last, qualitative and mixed-methods research might help to gain more nuanced understanding of managerial decision-making when it comes to balancing sustainability commitments, governance expectations and corporate tax planning. This evidence will be useful in improving the knowledge and understanding of the organisational mechanisms that exist between ESG performance and financial behaviour, and will help guide policy makers, regulators and corporate practitioners seeking to build sustainable corporate governance in emerging markets in Africa.

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Authors' Contribution

The author is solely responsible for all aspects of this study, including the conceptualization of the research, study design, methodology development, data collection, data analysis, interpretation of findings, manuscript preparation, and critical revision. The author read and approved the final version of the manuscript.

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