# EFFECT OF SOCIAL ACCOUNTING DISCLOSURES ON FINANCIAL PERFORMANCE OF QUOTED CONSUMER AND INDUSTRIAL GOODS FIRMS IN SUB-SAHARAN AFRICA: A COUNTRY SPECIFIC STATIC PANEL ANALYSIS

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**Abstract**

This study used the ex-post facto research design in the identification of factors linked with social accounting disclosures and financial performance of listed consumer and industrial goods companies in sub-Saharan Africa. The countries include Nigeria, South Africa, Kenya and Botswana. The financial performance metrics employed were return on equity and return on asset while the social accounting disclosures metrics were community projects, waste management, training and educational and occupational health and safety disclosures. Importantly, the static panel regression was used to empirically test the data obtained from 2012–2022. Findings indicated that community projects disclosure has a negative and insignificant effect on ROA of consumer and industrial goods firms in Nigeria. Botswana and Kenya revealed a positive and insignificant effect and a significant positive influence in South Africa. Waste management disclosure has insignificant effect on return on equity of studied firms in Nigeria and Botswana. There is a significant influence for waste management disclosure on consumer and industrial good firms in Kenya and South Africa. Occupational health and safety disclosure has a significant positive influence on the return on assets of quoted consumer and industrial goods firms in Nigeria, Botswana, and South Africa, while an insignificant influence is established in Kenya. It was also concluded that training and educational disclosure substantially impact on ROE in Nigeria, South Africa, and Kenya, with an insignificant influence for firms in Botswana. It recommends that regulations mandating social accounting disclosures are promulgated for corporate firms. Additionally, consumer and industrial goods firms in Nigeria, Kenya, South Africa and Botswana are to priorities social accounting disclosure and put a beam-light on waste management disclosure; this will boost their corporate image, increase performance and reduce industrial conflict.

**Keywords:** Social accounting disclosure; Waste management disclosure; Occupational health and safety disclosure; Employees Training and Educational disclosure; Community projects disclosure

**JEL Classification:** M41; M49

## 1. INTRODUCTION

Sustainable development as an evolving issue encompasses diverse areas of life. Several business ventures were established solely to increase the value of owners' investment in ways possible without considering the effects of their actions on its' stakeholders inclusive of the host community. An operation of several firms, especially multinational corporations in oil and gas and some manufacturing firms generates industrial spoils with negative impacts to the society. These are regarded as social failures and threats to economic activities and environmental sustainability. To salvage the dwindling economic crisis arising from corporate social failures, agitations by reputable international organizations entrenched the Global Reporting Initiative to encourage the imprecation for firms to report and disclose expenditures on social responsibility.

It is imperative to sustain and intensify efforts towards advancing and increasing accounting studies on social accounting disclosure and its effects on the overall performance of listed firms in Sub–Saharan Africa. Some previous studies (Nnamani, Onyekwelu & Ugwu.2017) showed that social accounting disclosure may serve as a strategic advantage to the companies by acknowledging the community expectations, which will facilitate sustainable business operations, and endorse transparency and accountability. However, there is serious difficulty measuring and disclosing expenditures arising from social activities. It has been observed that social accounting disclosure techniques adopted in some previous studies (Daferighe, Akpanuko & Offiong, 2019; Odunsi, Adeaga & Odeniyi, 2019; Chebet & Muturi, 2018; Chaudhary, 2018) were based on arbitrary choice. These techniques were Fortune's social responsibility index, Moskowitz's reputational index, and the case studies method. This methodology gap affects the general acceptability of the findings of these previous studies. Therefore, multifaceted Global Reporting Index standards will be used as disclosure measurement in this study.

However, the principles of reporting and standard disclosures outlined by the Global Reporting Initiative (GRI) were used in this research. Nonetheless, the standards addressed every kind of non-financial disclosure, including those about human rights, the environment, society, government, and the economy. In the light of this study, non-financial information disclosure is focused on effluents and waste management disclosure (GRI 306), Occupational health and safety disclosure (GRI 403), Community Project disclosure (GRI 413), employee welfare disclosure (GRI 401), Training and Educational disclosure (GRI 401) and its effect on financial performance among quoted consumer and industrial goods ventures in sub- Saharan Africa.

Quite several studies in this regard have either concentrated on the nexus between environmental and sustainability reporting and the performance of studied firms and/or the mediating effects of corporate governance mechanism as a link between environmental accounting, sustainability reporting, and corporate performance (Ingram & Frazier, 2010; Freedman & Jaggi, 2012; Makori & Jagongo, 2013, Chebet & Muturi, 2018; Chaudhary, 2018; Egbunike & Okoro, 2018; Bana, *et*

*al*, 2019; Irabora, 2019; Odunsi, Adeaga & Odeniyi, 2019; Singh & Misra, 2021; Powei, 2020). Accordingly, little is known concerning any related study conducted on social accounting disclosure and financial performance in sub-Saharan Africa employing the prescribed GRI index/indicators for social accounting disclosure. Therefore, this study is geared towards pervading the observed gaps by critically examining the effect of social accounting disclosure and corporate performance on listed consumer and industrial goods firms in Sub–Saharan Africa.

## 2. REVIEW OF RELATED LITERATURE

### 2.1. SOCIAL ACCOUNTING DISCLOSURES

There is a clear-cut aim that complements the financial interest of shareholders, according to monetary theory, and that is to maximize the value of shareholder wealth. Beyond shareholders, however, there are other stakeholders who have an influence on businesses; these stakeholders often care more about the company's influence on society and the environment than they do about the performance. Given the many stakeholders with potentially competing interests, it may be difficult to clearly define social accounting disclosure. In the literature, social accounting is an aspect that has been seen to influence the performance of firms.

The term social accounting refers to the monetary contributions by firms to social and charitable entities (such as those connected with education, culture, art, healthcare, and disaster relief etc.) (Odunsi, Adeaga & Odeniyi, 2019). Firms may achieve socio-political legitimacy with the help of social accounting when those who have a stake in the firm's operations see it as appropriate and lawful according to preexisting societal norms and regulations (Nwobu, 2017; Odoemelam & Okafor, 2018). Broadly speaking, social accounting disclosure has been defined in the accounting literature. Notably, social accounting disclosure is one aspect of corporate social responsibility (CSR). According to Palmer (2012), companies may take four distinct steps to improve society via social accounting disclosure: implementing a sustainable supply chain strategy, being environmentally responsible, prioritizing consumer wellness, and making corporate social donations.

Social accounting disclosure refers to when companies voluntarily inform outside parties about their financial situation without being required to do so or expecting a return (Hadani & Coombes 2015; Liket & Maas, 2016). Social accounting disclosure relates to the gathering, summarizing, recording, categorization, and interpretation of social expenses data incurred by a reporting entity and the sharing of such information with interested stakeholders. The disclosure of social accounting information according to Lydon Ikechukwu and Ayaundu (2021) provide a good reputation, which can be deemed as a responsible corporate action by the reporting entity. Again, social accounting seeks to assess the net social contributions of an entity, including the external benefits that influence segments of the community (Bessong & Tapang, 2012).

Fatma, Rahman, and Khan (2015) and Esen (2013) state that the conventional wisdom is that a company's only purpose is to maximize profits for its

shareholders. Companies can gain social and political legitimacy through social accounting disclosure when their stakeholders and the general public view them as acting appropriately and in accordance with established laws and norms (Singh & Misra, 2021; Chaudhary, 2018; Mensah, Agyapong, & Nuertey, 2017; and Zapotorczny, 2012). Social accounting disclosure is defined by Brammer, Millington, and Rayton (2007) as a company's duty to build and improve society and its organizations via the use of diverse business and social activities that aim to provide equitable and long-term benefits to all stakeholders.

Social accounting disclosure, according to Skudiene and Auruskeviciene (2012), is a mechanism by which companies include environmental and social dynamics into their stakeholder interactions. According to Godfrey (2005) and Fan, Wong & Zhang (2007), social accounting disclosure refers to when a company gives money or presents for social and charity purposes. These causes might be linked to education, culture, arts, minorities, healthcare, or disaster assistance. The term "social accounting disclosure" was first used by Titisari (2010) to define a reporting structure that provides interested parties with information on a company's social, community, and employee-related activities. In light of the moderating influence of business size, this research contends that social accounting disclosure may significantly impact corporate performance. Bessong and Tapang(2012) see social accounting disclosure as a rational evaluation and reporting of the business activities of an entity that have a social impact on the community, employees, and environment. In this study, we measured social accounting disclosures using disclosure on waste management costs and occupational health and safety.

### 2.1.1. WASTE MANAGEMENT DISCLOSURE

One of the most recent and contentious areas of environmental information disclosure mandated by GRI standards is waste information disclosure, which aims to optimize resource recycling processes in relation to sustainable business development strategies. Everything that becomes an effluent or other kind of waste as a consequence of using a material process is considered waste (Environmental Protection Authority, 2010). Given the risks to people's well-being and the environment, waste management is an important problem. Supporting this claim, Agbo, Ohaegbu and Akubuilo (2017) argue that waste management is a significant challenge on a worldwide scale, particularly in developing nations where it hurts the environment.

Cooper (2018) defined waste management as the measures taken by an organization to lessen, eradicate, and preferably forestall any adverse effects on the environment that may arise as a consequence of its environmental initiatives. Managing waste encompasses all activities and resources related to waste management, including but not limited to the upkeep of trash transport vehicles and disposal facilities as well as the observance of health and environmental requirements. Collecting and breaking down solid waste are two components of waste management strategies.

Various actions both inside and outside of a company's core business might contribute to the overall amount of trash that is generated during the production or provision of products or services. Efficient waste and residual material management require an in-depth familiarity with the resource utilization and recycling processes used by non-financial enterprises in their production activities, together with an appreciation for the effects of each step on each stakeholder. Organizational levels, operational cycles, and the flow of resources all play a role in the materials and waste management problem (Kurdve, Shabhazi, Wendin, Bengsston, Wiktorsson, & Amprazis, 2017). Companies and organizations work together to recycle materials that come from the various stages of resource recovery.

### 2.1.2. OCCUPATIONAL HEALTH AND SAFETY DISCLOSURE

Occupational health and safety, in simple terms, is the practice of minimizing hazards to workers' well-being on the job and to the communities and ecosystems around a firm (Alli, 2018). The field is constantly changing due to various factors such as socioeconomic shifts, political upheavals, technological advancements, industry competition, population growth or decline, new forms of transportation and communication

In some other contexts, it could be linked to new regulations, changes in the way jobs are filled, changes in business sizes and types, and changes in the way businesses are structured and run (Alli, 2018). According to Celma, Martínez-Garcia, and Coenders (2014), an unstable work environment creates new kinds of risks, hazards, opportunities, and exposures for employees, and reporting on these matters is an important part of corporate sustainability disclosure in this context.

### 2.1.3. COMMUNITY DEVELOPMENT PROJECT DISCLOSURE

New social value duties imposed on corporate businesses have altered the classic business-society relationship over time. Donations of cash, products, or services made by employees to support long-standing community events, organizations, schools, and the arts (including sponsorship declarations) are one example of these new social value responsibilities. Other examples include student internship programmes, public health project sponsorship, medical research assistance, conference, seminar, or art exhibit sponsorship, and scholarship programme funding (Ishmail & Sira, 2013).

According to Amran and Siti-Nabiha (2017), one of the main purposes of community development is to equip people so that they can make a good difference in their neighborhoods. These skills usually develop when individuals work together to achieve a goal common to them. To be effective, community developers must be able to collaborate with people and shape their communities' roles within broader social systems. There are a variety of reports that may be found on CSR including community development disclosure, social and environmental reporting and CSR (Khan, 2010). All criteria are aimed towards the responsiveness of firms to the community. Companies and the environment are seen by some authors as having an input-output connection. In other words, for a business to succeed, the environment and the enterprise must work hand in hand.

### 2.1.4. EMPLOYEE TRAINING AND EDUCATIONAL DISCLOSURES

Notably, when companies are transparent about their training and education programmes, it shows that they are open about the policies and procedures that management has put in place to improve the skills and competencies of their employees, as well as the procedures for the demand and supply of human capital. Training development is an organized initiative to raise the level of education and competence among employees so that they may succeed in their present and future positions of increasing responsibility.

The rapid evolution of organizations and advancements in technology have all contributed to a more complicated work environment, which in turn has increased the necessity of training and developing employees to meet these challenges. According to Jones, George, and Hill (2012), training is a great way to make sure that everyone in an organization knows what they're doing, can handle new tasks, and can adjust to different situations. Training has a similar effect on profitability, organizational performance, customer satisfaction, productivity, morale, management succession, company growth, and quality.

## 2.2. FINANCIAL PERFORMANCE

Financial ratios such as earnings, ROE, NPAT, ROI, dividends per share, earnings yield, etc.); product market performance (sales, turnover, market share (as measured by Tobin's Q), etc.); and shareholders returns (total shareholders return, economic value added, etc.) are the three main metrics of financial performance. In this study, financial performance was measured using return on asset and return on equity.

- **Return on Asset (ROA)**

The ROA of a business is determined by dividing its total assets by its net profit after taxes. Net income divided by total assets or operational income to total assets ratio are the two most popular ways to calculate return on assets. Previous studies by Nnamani, Onyekwelu and Ugwu(2017), Muhammad, Faisal, and Muhammad (2016), Jeroh and Okoro (2016), Gamble, Hsu, Kite and Radtke (2015), Freedman and Jaggi (2012), and Ingram and Frazier (2010) found that social and environmental expenses had a substantial impact on firms' return on assets. There has been conflicting evidence in the literature about the connection between social and environmental costs and corporate performance. Some studies have shown a positive association, while others have shown the reverse to be true. This highlights a two-pronged problem with the empirical results.

In order to estimate financial performance, this research employed operational performance dynamics, such as ROA, considering the submission of previous studies. Since previous research has shown conflicting results about the relationship between ROA and ESG, this study will include ROA as a financial performance variable into its empirical model in an effort to clarify the accounting literature. Accordingly, presumed that listed firms' return on assets is unaffected by social accounting disclosure.

- **Return on Equity (ROE)**

Stockholders really care more about return on equity (ROE) than they do about debt. Shareholders measure a company's performance over time using return on equity (ROE). From a shareholder perspective, it is preferable to employ retained profits rather than seek outside funding. This is based on the idea that corporations would turn to debt financing if retained earnings are insufficient. Return on equity (ROE) measures how much of a company's net income goes back to shareholders as a percentage of the equity they initially invested. A company's return on equity (ROE) is its net income after taxes divided by its total equity or capital employed.

This ratio shows how much profit the shareholders get out of their investments. Return on equity (ROE) is positively or negatively correlated with social and environmental accounting, according to several research articles (e.g., Egbunike & Okoro, 2018; Nnamani, Onyekwelu & Ugwu, 2017; Ifurueze, Lydon & Bingilar; and Makori & Jagongo, 2013). This research incorporates return on equity (ROE) as a measure of financial performance based on the findings of prior studies. Therefore, we assumed that return on equity of listed firms is unaffected by social accounting disclosures.

## 2.3. THEORETICAL FRAMEWORK

This study was anchored on structure-conduct-performance theory. The Neoclassical market analysis is the theoretical foundation of the Structure-Conduct-Performance paradigm. Miller, Gloria, and Matthew (2021) state that the two pillars around which the Structure-Conduct-Performance paradigm was built, had its origins in Bain (1950). The original concept proposed a one-way causality chain beginning with structure (concentration) and ending with performance (profitability) via conduct (firms' pricing behavior). According to Mosca (2016), the market's structure dictates its behavior, which in turn dictates its performance. This is the core premise of the structure, conduct, and performance method.

There are a number of metrics used to measure performance, including employment, profitability, ROB, ROC, ROA, and ROC. The concentration ratio is used to illustrate market concentrations. According to Mensi and Zauari (2010), the structure, conduct, and performance paradigm mostly takes one-way links into account when studying market structure. Profitability will increase from the normal level (in the event of perfect competition) to the supernormal level (of monopoly) when an industry moves from having many businesses to having a small number of firms, according to the Structure, Conduct, and Performance paradigm. Put simply, according to theory, the more concentrated a market is, the higher the profits and production prices will be.

Panhans and Reinhard (2021) state that the theory of Structure, Conduct, and Performance demonstrates that the success of a market is contingent upon a wide range of factors, including the ease of entry, the concentration of the market, the size and number of firms, and the various strategies and tactics employed by firms, including capacity utilization, advertising, and collusion. Take a concentrated market as an example. When big corporations band together, they may act like monopolies,

driving up prices while reducing production. Consequently, when businesses can collude and make substantial positive profits, market performance is often bad in highly concentrated marketplaces. This theory is pertinent to the research because it explains how big, established companies may dominate a market by growing their production capacity and keeping their stakeholders informed of all of their financial and non-financial transactions.

## 3. RESEARCH METHOD

The e*x-post facto* research design was used involving listed firms in sub-Saharan Africa on recognized stock exchanges as at 31st December, 2022; hence the study population comprised 312 listed firms on Johannesburg Stock Exchange, 65 on Nairobi Security Exchange, 173 on Nigerian Exchange Group and 36 on Botswana National Stock Exchange, totaling 586 listed companies.

A sample of 41 companies (Nigeria), 13 (Botswana), 37 (Kenya) and 164 (South Africa), totaling a sample size of 255 were obtained quoted consumer and industrial goods firms using purposive sampling technique. Secondary data were obtained from the annual reports/accounts of the companies. Financial performance was measured using return on equity and asset while social accounting disclosure via waste management, community project, occupational health and safety and Employees Training and Educational disclosures. Static panel regression was adopted in the data analysis. Therefore, the following models were estimated:

**Linear Model:**

$$ROE_{it} = (\gamma_0 + \beta_1 CPD_{it} + \beta_2 OHS_{it} + \beta_3 WD_{it} + \beta_4 TED_{it} + \beta_5 FL_{it} + \beta_6 FS_{it} + \varepsilon_t)$$

**Common Effect Model or Pooled Least Square (PLS)**

$$ROE_{it} = (\gamma_0 + \beta_1 CPD_{it} + \beta_2 OHS_{it} + \beta_3 WD_{it} + \beta_4 TED_{it} + \beta_5 FL_{it} + \beta_6 FS_{it} + \varepsilon_t)$$

**Fixed Effect Model or Least Squares Dummy Variable (LSDV)**

$$ROE_{it} = (\gamma_0 + \beta_1 CPD_{it} + \beta_2 OHS_{it} + \beta_3 WD_{it} + \beta_4 TED_{it} + \beta_5 FL_{it} + \beta_6 FS_{it} + \varepsilon_t)$$

**Random Effect Model or Generalized Least Square**

$$ROE_{it} = (\gamma_0 + \beta_1 CPD_{it} + \beta_2 OHS_{it} + \beta_3 WD_{it} + \beta_4 TED_{it} + \beta_4 FL_{it} + \beta_5 FS_{it} + \mu_i + \varepsilon_t)$$

Where:

ROE= Return on equity; CPD= community projects disclosure; OHS= occupational health and safety disclosure; WD= waste management disclosure; TED; employee training and educational disclosure; Financial Leverage= Firm Size; FS= Firm Size; i= number of individuals or cross section; t= number of periods; $\varepsilon_t$= white noise.

## 4. RESULTS AND DISCUSSION

***Table 4.1.1:*** *Descriptive Statistics*

| | ROE | ROA | CPD | OHS | WD | TED | FL | FS |
|---|---|---|---|---|---|---|---|---|
| **Mean** | 1.470732 | 1.355109 | 0.858467 | 0.844991 | 0.530314 | 0.814305 | 0.937922 | 7.056672 |
| **Median** | 0.138767 | 0.056483 | 1.000000 | 1.000000 | 1.000000 | 1.000000 | 0.340000 | 7.028959 |
| **Maximum** | 840.1909 | 769.0188 | 1.000000 | 1.040000 | 2.000000 | 1.040000 | 99.69000 | 9.525021 |
| **Minimum** | -1964.350 | -179.9200 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | -7.540000 | 4.370476 |
| **Std. Dev.** | 54.18121 | 16.40439 | 0.348633 | 0.362080 | 0.501309 | 0.389044 | 2.803216 | 0.926545 |
| **Skewness** | -24.68207 | 36.49559 | -2.056783 | -1.905641 | -0.095985 | -1.615727 | 18.72698 | 0.075015 |
| **Kurtosis** | 895.9072 | 1719.302 | 5.230358 | 4.631647 | 1.076326 | 3.610735 | 587.6666 | 2.579767 |
| **Jarque-Bera** | 934.6728 | 3.457808 | 2559.087 | 2008.864 | 436.6497 | 1261.333 | 401.1592 | 23.27036 |
| **Probability** | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000009 |
| **Sum** | 4125.403 | 3801.079 | 2408.000 | 2370.200 | 1487.000 | 2279.240 | 2630.871 | 19793.97 |
| **Sum Sq. Dev.** | 8231432. | 754567.8 | 340.8114 | 367.6101 | 704.4233 | 423.4928 | 22033.89 | 2407.193 |
| **Observations** | 2805 | 2805 | 2805 | 2805 | 2805 | 2805 | 2805 | 2805 |

*Author's Compilation (2024)*

*Note: ROE (Return on equity), ROA (Return on Asset); CPD (Community project disclosure); OHS (Occupational health and Safety disclosure); WD (Waste management disclosure); TED (Training and educational disclosure); FL (Financial Leverage) and FS (Firm size)*

ROE (Return on Equity) has a mean value of 1.47%, median value of 0.13% and standard deviation has a variation of 54.18. ROA (Return on Asset) has a mean value of 1.35%, median value of 0.05% and standard deviation has a variation of 16.40. CPD (Community project disclosure) has a mean value of 0.85%, median value of 1.00% and standard deviation has a variation of 0.34. OHS (Occupational health and Safety disclosure) has a mean value of 0.84%, median value of 1.00% and standard deviation has a variation of 0.36. WD (Waste management disclosure) has a mean value of 0.53%, median value of 1.00% and standard deviation has a variation of 0.50. TED (Training and educational disclosure) has a mean value of 0.81%, median value of 1.00% and standard deviation has a variation of 0.38. FL (Financial Leverage) has a mean value of 0.93%, median value of 0.34% and standard deviation has a variation of 2.80. FS (Firm Size) has a mean value of 7.05%, median value of 7.02% and standard deviation has a variation of 0.93.

The skewness in the variables includes; ROE (Return on equity) is negatively skewed at –24.68. ROA (Return on asset) is positively skewed at 36.49, CPD (Community project disclosure) is negatively skewed at -2.05, OHS (Occupational health and Safety disclosure) is negatively skewed at -1.90, WD (Waste management disclosure) is negatively skewed at -0.09, TED (Training and educational disclosure) is negatively skewed at -1.61, FL (Financial Leverage) is positively skewed at 18.72 and FS (Firm Size) is positively skewed at 0.07.

ROE (Return on Equity) is platykurtic at 895.9, ROA (Return on Asset) is platykurtic at 1719.3, CPD (Community project disclosure) is platykurtic at 5.23, OHS (Occupational health and Safety disclosure) is platykurtic at 4.63, WD (Waste

management disclosure) is leptokurtic at 1.07, TED (Training and educational disclosure) is mesokurtic at 3.61, FL (Financial Leverage) is platykurtic at 587.6, and FS (Firm Size) is leptokurtic at 2.57.

The Jarque-bera test is an asymptotic test which has ROE (Return on Equity) has a value of 4125.4 at 0.0000 probability which is not normally distributed. ROA (Return on Asset) has a value of 3801.0 at 0.0000 probability which is not normally distributed. CPD (Community project disclosure) has a value of 2408.0 at 0.0000 probability which is not normally distributed. OHS (Occupational health and Safety disclosure) has a value of 2370.2 at 0.0000 probability which is not normally distributed. WD (Waste management disclosure) has a value of 436.64 at 0.0000 probability which is not normally distributed. TED (Training and educational disclosure) has a value of 1261.3 at 0.0000 probability which is not normally distributed. FL (Financial Leverage) has a value of 1261.3 at 0.0000 probability which is not normally distributed. FS (Firm Size) has a value of 23.270 at 0.0000 probability which is not normally distributed.

***Table 4.1.2:*** *Correlation Analysis*

| | **ROE** | **ROA** | **CPD** | **OHS** | **WD** | **TED** | **FL** | **FS** |
|---|---|---|---|---|---|---|---|---|
| **ROE** | 1 | | | | | | | |
| **ROA** | 0.4081 | 1 | | | | | | |
| **CPD** | -0.0277 | -0.0210 | 1 | | | | | |
| **OHS** | -0.0126 | -0.0194 | 0.4050 | 1 | | | | |
| **WD** | -0.0112 | -0.0447 | 0.2113 | 0.3373 | 1 | | | |
| **TED** | -0.0089 | -0.0307 | 0.2302 | 0.4267 | 0.3080 | 1 | | |
| **FL** | 0.0102 | 0.0034 | -0.0522 | -0.0067 | 0.0023 | 0.0300 | 1 | |
| **FS** | 0.0287 | 0.0115 | 0.0413 | -0.0282 | 0.1067 | -0.0047 | -0.0022 | 1 |

*Author's Compilation (2024)*

The table 4.1.2 above reveals the correlation matrix between the dependent variables and independent variables. ROE (Return on equity) shows that there is negative relationship between CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), but a positive relationship with FL (Financial Leverage) and FS (Firm size). ROA (Return on asset) has a negative relationship with CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), but positive relationship with FL (Financial Leverage) and FS (Firm size).

***Table 4.1.3*** *Variance Inflation Factor*

| **Variables** | **Centered VIF** |
|---|---|
| CPD | 1.215630 |
| TED | 1.275914 |
| WD | 1.195985 |
| OHS | 1.457787 |
| FS | 1.018973 |
| FL | 1.004631 |
| C | NA |

*Author's Compilation (2024)*

The table 4.1.3 is the variance inflation factor that helps to examine the presence of multicollinearity between the independent variable, which is more robust to the correlation matrix. The rule of thumb is that the value before the decimal point must not be more five. Higher value above five indicates the presence of multicollinearity, but value below shows absence of multicollinearity. The above table shows the absence of multicollinearity. It implies that the explanatory variables are fit to specify together in an econometric model.

## 4.2. REGRESSION RESULTS

### 4.2.1 COUNTRY SPECIFIC (NIGERIA): STATIC REGRESSION ANALYSIS

***Table 4.2.1:*** *Pooled Regression Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | -17.73647 | 13.75373 | -1.289575 | 0.0079 |
| **OHS** | 18.16435 | 45.84714 | 0.396194 | 0.6922 |
| **WD** | 5.370208 | 12.43569 | 0.431838 | 0.6661 |
| **TED** | 2.834866 | 45.61297 | 0.062150 | 0.0005 |
| **FL** | -0.019883 | 1.138874 | -0.017459 | 0.9861 |
| **FS** | 7.915536 | 6.245446 | 1.267409 | 0.0057 |
| **C** | -66.30532 | 50.75117 | -1.306479 | 0.1921 |
| R-squared | | 0.508474 | Mean dependent var | 0.830023 |
| Adjusted R-squared | | 0.514925 | S.D. dependent var | 128.6309 |
| S.E of regression | | 128.9473 | Akaike info criterion | 12.57208 |
| Sum squared resid | | 7382566. | Schwarz criterion | 12.63590 |
| Log likelihood | | -2828.005 | Hannan-Quinn criter. | 12.59723 |
| F-statistic | | 0.632432 | Durbin-Watson stat | 1.624100 |
| Prob(F-statistic) | | 0.704334 | | |

*Author's Compilation, 2024*

The Pooled regression model revealed that CPD (Community project disclosure) has a negative significant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to -17.73 decrease in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 18.16 increase in ROE (Return on equity). WD (Waste management disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to 5.37 increase in ROE (Return on equity). TED (Training and educational disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 2.83 increase in ROE (Return on equity). FL (Financial leverage) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to -0.01 decrease in ROE (Return on equity). FS (Firm Size) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 7.91 increase in ROE (Return on equity). The coefficient of

determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 50.84% variation in the companies in Nigeria. Adjusted R-squared is 0.514925indicating that the independent variable explained the dependent variable by 51.49% while the unexplained variation is about 48.51% (suggesting other variables not included in the empirical model of study).

***Table 4.2.2:*** *Fixed Effect Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | 0.529386 | 17.31149 | 0.030580 | 0.9756 |
| **OHS** | 10.58389 | 50.20036 | 0.210833 | 0.0331 |
| **WD** | -2.486946 | 17.72589 | -0.140300 | 0.8885 |
| **TED** | 5.600558 | 53.37648 | 0.104926 | 0.0165 |
| **FL** | 0.394995 | 1.249717 | 0.316068 | 0.7521 |
| **FS** | -7.429423 | 17.59100 | -0.422342 | 0.0130 |
| **C** | 38.75371 | 127.7666 | 0.303317 | 0.7618 |
| Cross section fixed (dummy variables) | | | | |
| R-squared | 0.514368 | Mean dependent var | 0.830023 | |
| Adjusted R-squared | 0.513528 | S.D dependent var | 128.6309 | |
| S.E. of regression | 127.7579 | Akaike info criteri | 12.63652 | |
| Sum squared resid | 6594117. | Schwarz criteri | 13.06499 | |
| Log likelihood | -2802.536 | Hannan-Quinn criter | 12.80538 | |
| F-statistic | 1.134157 | Durbin-Watson stat | 1.810375 | |
| Prob(F-statistic) | 0.261415 | | | |

*Author's Compilation, 2024*

The Fixed effect model revealed that CPD (Community project disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to 0.52 increase in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 10.58 increase in ROE (Return on equity). WD (Waste management disclosure) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to -2.48 decrease in ROE (Return on equity). TED (Training and educational disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 5.60 increase in ROE (Return on equity). FL (Financial leverage) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to 0.39 increase in ROE (Return on equity). FS (Firm Size) has a negative significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 7.42 increase in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS

(Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 51.43% variation in the companies in Nigeria. Adjusted R-squared is 0.513528 indicating that the independent variable explained the dependent variable by 51.35% while the unexplained variation is about 48.65% (suggesting other variables not included in the empirical model of study).

***Table 4.2.3:*** *Random Effect Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | -15.17116 | 14.20693 | -1.067871 | 0.2862 |
| **OHS** | 17.02548 | 46.30338 | 0.367694 | 0.0133 |
| **WD** | 4.334128 | 13.04546 | 0.332233 | 0.7399 |
| **TED** | 3.457576 | 46.57502 | 0.074237 | 0.0409 |
| **FL** | 0.064767 | 1.151042 | 0.056268 | 0.9552 |
| **FS** | 7.420089 | 6.861042 | 1.081481 | 0.0201 |
| **C** | -63.52361 | 54.91841 | -1.156691 | 0.2480 |
| Cross-section random | | | 20.08023 | 0.0241 |
| Idiosyncratic random | | | 127.7579 | 0.9759 |
| R-squared | | 0.506158 | Mean dependent var | 0.736022 |
| Adjusted R-squared | | 0.507272 | S.D dependent var | 127.0667 |
| S.E of regression | | 127.5279 | Sum squared resid | 7220930. |
| F-statistics | | 0.458518 | Durbin-Watson stat | 1.658916 |
| Prob(F-statistic) | | 0.838915 | | |
| R-squared | | 0.508357 | Mean dependent | 0.830023 |
| Sum squared resid | | 7383438. | Durbin-Watson | 1.622404 |

*Author's Compilation, 2024*

The Random effect model revealed that CPD (Community project disclosure) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to -15.17 decrease in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 17.02 increase in ROE (Return on equity). WD (Waste management disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to 4.33 increase in ROE (Return on equity). TED (Training and educational disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 3.45 increase in ROE (Return on equity). FL (Financial leverage) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to 0.06 increase in ROE (Return on equity). FS (Firm Size) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 7.42 increase in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 50.61% variation in the companies in Nigeria. Adjusted R-squared

is 0.507272 indicating that the independent variable explained the dependent variable by 50.72% while the unexplained variation is about 49.28% (suggesting other variables not included in the empirical model of study).

***Table 4.2.4*** *Hausman Test*

| Test Summary | Chi-sq. Statistic | Chi-Sq. df | Prob. |
|---|---|---|---|
| Cross-section random | 4.402755 | 6 | 0.6223 |

*Author's Compilation, 2024*

Based on the test results, it can be inferred that the random effects in the model are correlated with the independent variables. This means that the random effect model is preferred over the fixed effect model (p >0.05). Therefore, the random effect model is used for drawing inferences for the objectives.

### 4.3.1. COUNTRY SPECIFIC (BOTSWANA): STATIC REGRESSION ANALYSIS

***Table 4.3.1:*** *Pooled Regression Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | 1.298304 | 3.171590 | 0.409354 | 0.6829 |
| **OHS** | 2.973800 | 2.776649 | 1.071003 | 0.0061 |
| **WD** | 28.30865 | 4.985121 | 5.678628 | 0.0000 |
| **TED** | 3.099416 | 2.842436 | 1.090409 | 0.2775 |
| **FL** | -0.587728 | 0.793187 | -0.740970 | 0.4600 |
| **FS** | 3.869469 | 1.333653 | 2.901407 | 0.0043 |
| **C** | -14.59568 | 10.69876 | -1.364241 | 0.1747 |
| R-squared | | 0.543605 | Mean dependent var | 18.70851 |
| Adjusted R-squared | | 0.564647 | S.D. dependent var | 14.51448 |
| S.E of regression | | 12.01597 | Akaike info criterion | 7.858063 |
| Sum squared resid | | 19636.16 | Schwarz criterion | 8.003097 |
| Log likelihood | | -554.8515 | Hannan-Quinn criter. | 7.916998 |
| F-statistic | | 11.86539 | Durbin-Watson stat | 0.566862 |
| Prob(F-statistic) | | 0.000000 | | |

*Author's Compilation, 2024*

The Pooled regression model revealed that CPD (Community project disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to 1.29 increase in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 2.97 increase in ROE (Return on equity).WD (Waste management disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to 28.30 increase in ROE (Return on equity). TED (Training and educational disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 3.09 increase in ROE (Return on equity). FL (Financial leverage) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to -0.58 increase in ROE (Return on

equity). FS (Firm Size) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 3.86 increase in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 54.36% variation in the companies in Botswana. Adjusted R-squared is 0.564647 indicating that the independent variable explained the dependent variable by 56.47% while the unexplained variation is about 43.53% (suggesting other variables not included in the empirical model of study).

***Table 4.3.2:*** *Fixed Effect Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | 0.434069 | 3.381428 | 0.128369 | 0.8981 |
| **OHS** | 4.418726 | 3.941054 | 1.121204 | 0.0444 |
| **WD** | 12.22100 | 6.567216 | 1.860910 | 0.0651 |
| **TED** | 7.340608 | 4.278308 | 1.715773 | 0.0887 |
| **FL** | -1.120381 | 0.691254 | -1.620795 | 0.1076 |
| **FS** | 25.82323 | 4.200104 | 6.148235 | 0.0000 |
| **C** | -181.7105 | 33.59933 | -5.408157 | 0.0000 |
| Cross section fixed (dummy variables) | | | | |
| R-squared | | 0.615123 | Mean dependent var | 18.70851 |
| Adjusted R-squared | | 0.559254 | S.D dependent var | 14.51448 |
| S.E. of regression | | 9.635979 | Akaike info criteri | 7.492056 |
| Sum squared resid | | 11513.66 | Schwarz criteri | 7.885721 |
| Log likelihood | | -516.6820 | Hannan-Quinn criter | 7.652023 |
| F-statistic | | 11.01005 | Durbin-Watson stat | 0.968266 |
| Prob(F-statistic) | | 0.000000 | | |

*Author's Compilation, 2024*

The Fixed effect model revealed that CPD (Community project disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to 0.43 increase in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 4.41 increase in ROE (Return on equity). WD (Waste management disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to 12.22 increase in ROE (Return on equity). TED (Training and educational disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 7.34 increase in ROE (Return on equity). FL (Financial leverage) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to -1.12 decrease in ROE (Return on equity). FS (Firm Size) has a positive significant effect on ROE (Return on equity)

which implies that a percentage increase in FS (Firm Size) will lead to 25.82 increase in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 61.51% variation in the companies in Botswana. Adjusted R-squared is 0.559254indicating that the independent variable explained the dependent variable by 55.92% while the unexplained variation is about 44.08% (suggesting other variables not included in the empirical model of study).

***Table 4.3.3**: Random Effect Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | -0.481112 | 3.038823 | -0.158322 | 0.8744 |
| **OHS** | 2.325333 | 3.194758 | 0.727859 | 0.0180 |
| **WD** | 18.20007 | 5.765565 | 3.156685 | 0.0020 |
| **TED** | 3.911599 | 3.339703 | 1.171241 | 0.2435 |
| **FL** | -0.521404 | 0.661123 | -0.788664 | 0.4317 |
| **FS** | 9.910008 | 2.269648 | 4.366319 | 0.0000 |
| **C** | -59.01607 | 18.25731 | -3.232463 | 0.0015 |
| Cross-section random | | | 6.882267 | 0.3378 |
| Idiosyncratic random | | | 9.635979 | 0.6622 |
| R-squared | | 0.571400 | Mean dependent var | 7.276049 |
| Adjusted R-squared | | 0.595727 | S.D dependent var | 11.28398 |
| S.E of regression | | 10.36821 | Sum squared resid | 14619.98 |
| F-statistics | | 5.365327 | Durbin-Watson stat | 0.711930 |
| Prob(F-statistic) | | 0.000053 | | |
| R-squared | | 0.512235 | Mean dependent | 18.70851 |
| Sum squared resid | | 23566.12 | Durbin-Watson | 0.441668 |

*Author's Compilation, 2024*

The Random effect model revealed that CPD (Community project disclosure) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to -0.48 decrease in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 2.32 increase in ROE (Return on equity). WD (Waste management disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to 18.20 increase in ROE (Return on equity).TED (Training and educational disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 3.91 increase in ROE (Return on equity).FL (Financial leverage) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to -0.52 decrease in ROE (Return on equity).FS (Firm Size) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 9.91 increase

in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 57.14% variation in the companies in Botswana. Adjusted R-squared is 0.595727 indicating that the independent variable explained the dependent variable by 59.57% while the unexplained variation is about 40.43% (suggesting other variables not included in the empirical model of study).

***Table 4.3.4*** *Hausman Test*

| Test Summary | Chi-sq. Statistic | Chi-Sq. df | Prob. |
|---|---|---|---|
| Cross-section random | 27.454537 | 6 | 0.0001 |

*Author's Compilation, 2024*

Based on the test results, it can be inferred that the fixed effects in the model are correlated with the independent variables. This means that the fixed effect model is preferred over the random effect model ($p < 0.05$). Therefore, the fixed effect model is used for drawing inferences for the objectives.

### 4.4.1. COUNTRY SPECIFIC (SOUTH AFRICA): STATIC REGRESSION ANALYSIS

***Table 4.4.1:*** *Pooled Regression Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | 1.053641 | 2.135961 | 0.493287 | 0.0219 |
| **OHS** | 0.286932 | 2.121567 | 0.135245 | 0.8924 |
| **WD** | -1.287205 | 1.062207 | -1.211821 | 0.0257 |
| **TED** | 1.130441 | 1.546206 | 0.731107 | 0.0048 |
| **FL** | -0.133569 | 0.233591 | -0.571806 | 0.5675 |
| **FS** | -0.977377 | 0.557060 | -1.754528 | 0.0795 |
| **C** | 6.000671 | 4.380787 | 1.369770 | 0.1709 |
| R-squared | 0.503666 | Mean dependent var | 0.586797 | |
| Adjusted R-squared | 0.510303 | S.D. dependent var | 19.95808 | |
| S.E of regression | 19.95505 | Akaike info criterion | 8.828755 | |
| Sum squared resid | 708006.8 | Schwarz criterion | 8.850274 | |
| Log likelihood | -7872.664 | Hannan-Quinn criter. | 8.836702 | |
| F-statistic | 1.090266 | Durbin-Watson stat | 2.032333 | |
| Prob(F-statistic) | 0.365799 | | | |

*Author's Compilation, 2024*

The Pooled regression model revealed that CPD (Community project disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to 1.05 increase in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 0.28 increase in ROE (Return on equity). WD (Waste

management disclosure) has a negative significant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to -1.28 decrease in ROE (Return on equity). TED (Training and educational disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 1.13 increase in ROE (Return on equity). FL (Financial leverage) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to -0.13 decrease in ROE (Return on equity). FS (Firm Size) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 0.97 decrease in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 50.36% variation in the companies in South Africa. Adjusted R-squared is 0.51030 indicating that the independent variables explained the dependent variable by 51.0% while the unexplained variation is about 49% (suggesting other variables not included in the empirical model of study).

***Table 4.4.2:*** *Fixed Effect Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | -2.168730 | 2.634925 | -0.823071 | 0.0106 |
| **OHS** | 5.183135 | 2.726278 | 1.901177 | 0.0075 |
| **WD** | -0.567671 | 1.729901 | -0.328152 | 0.0428 |
| **TED** | -0.731508 | 2.294153 | -0.318857 | 0.7499 |
| **FL** | -0.026052 | 0.272073 | -0.095754 | 0.9237 |
| **FS** | 0.282625 | 1.908200 | 0.148111 | 0.0223 |
| **C** | -3.129300 | 13.39523 | -0.233613 | 0.8153 |
| Cross section fixed (dummy variables) | | | | |
| R-squared | | 0.618729 | Mean dependent var | 0.586797 |
| Adjusted R-squared | | 0.627112 | S.D dependent var | 19.95808 |
| S.E. of regression | | 19.68567 | Akaike info criteri | 8.887551 |
| Sum squared resid | | 626241.5 | Schwarz criteri | 9.407064 |
| Log likelihood | | -7763.139 | Hannan-Quinn criter | 9.079404 |
| F-statistic | | 1.295922 | Durbin-Watson stat | 2.298698 |
| Prob(F-statistic) | | 0.008848 | | |

*Author's Compilation, 2024*

The Fixed Effect model revealed that CPD (Community project disclosure) has a negative significant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to -2.16 decrease in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 5.18 increase in ROE (Return on equity). WD (Waste management disclosure) has a negative significant effect on ROE (Return on equity) which

implies that a percentage increase in WD (Waste management disclosure) will lead to -0.56 decrease in ROE (Return on equity). TED (Training and educational disclosure) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to -0.73 decrease in ROE (Return on equity). FL (Financial leverage) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to -0.02 decrease in ROE (Return on equity). FS (Firm Size) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 0.28 increase in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 61.87% variation in the companies in South Africa. Adjusted R-squared is 0.627112 indicating that the independent variable explained the dependent variable by 62.71% while the unexplained variation is about 62.71% (suggesting other variables not included in the empirical model of study).

***Table 4.4.3:*** *Random Effect Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | 0.555939 | 2.195733 | 0.253191 | 0.0002 |
| **OHS** | 0.989308 | 2.192075 | 0.451311 | 0.0518 |
| **WD** | -1.204871 | 1.127340 | -1.068774 | 0.0353 |
| **TED** | 0.926083 | 1.626728 | 0.569292 | 0.5692 |
| **FL** | -0.113581 | 0.237894 | -0.477445 | 0.6331 |
| **FS** | -0.936654 | 0.613481 | -1.526786 | 0.0270 |
| **C** | 5.643209 | 4.754156 | 1.187005 | 0.2354 |
| Cross-section random | | | 3.152437 | 0.0250 |
| Idiosyncratic random | | | 19.68567 | 0.9750 |
| R-squared | | 0.602873 | Mean dependent var | 0.518141 |
| Adjusted R-squared | | 0.610492 | S.D dependent var | 19.70008 |
| S.E of regression | | 19.70494 | Sum squared resid | 690370.2 |
| F-statistics | | 0.853675 | Durbin-Watson stat | 2.084142 |
| Prob(F-statistic) | | 0.528462 | | |
| R-squared | | 0.603584 | Mean dependent | 0.586797 |
| Sum squared resid | | 708064.9 | Durbin-Watson | 2.032059 |

*Author's Compilation, 2024*

The Random Effect model revealed that CPD (Community project disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to 0.55 increase in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 0.98 increase in ROE (Return on equity). WD (Waste management disclosure) has a negative significant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to -1.20 decrease in ROE (Return on equity). TED (Training and educational

disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 0.56 increase in ROE (Return on equity). FL (Financial leverage) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to -0.11 decrease in ROE (Return on equity). FS (Firm Size) has a negative significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to -0.93 decrease in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 60.28% variation in the companies in South Africa. Adjusted R-squared is 0.610492 indicating that the independent variable explained the dependent variable by 61.04% while the unexplained variation is about 38.96% (suggesting other variables not included in the empirical model of study).

***Table 4.4.4*** *Hausman Test*

| Test Summary | Chi-sq. Statistic | Chi-Sq. df | Prob. |
|---|---|---|---|
| Cross-section random | 9.622312 | 6 | 0.1415 |

*Author's Compilation, 2024*

Based on the test results, it can be inferred that the random effects in the model are correlated with the independent variables. This means that the random effect model is preferred over the fixed effect model (p >0.05). Therefore, the random effect model is used for drawing inferences for the objectives.

### 4.5.1. COUNTRY SPECIFIC (KENYA): STATIC REGRESSION ANALYSIS

***Table 4.5.1:*** *Pooled Regression Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | 0.170434 | 0.133278 | 1.278788 | 0.0017 |
| **OHS** | -0.002208 | 0.123226 | -0.017916 | 0.9857 |
| **WD** | -0.008962 | 0.109296 | -0.081998 | 0.0347 |
| **TED** | 0.098657 | 0.112932 | 0.873593 | 0.0029 |
| **FL** | 0.020156 | 0.026377 | 0.764173 | 0.4452 |
| **FS** | 0.182366 | 0.066929 | 2.724767 | 0.0067 |
| **C** | -1.486663 | 0.455315 | -3.265130 | 0.0012 |
| R-squared | | 0.660871 | Mean dependent var | 0.069544 |
| Adjusted R-squared | | 0.696386 | S.D. dependent var | 0.914254 |
| S.E of regression | | 0.892798 | Akaike info criterion | 2.628606 |
| Sum squared resid | | 310.0672 | Schwarz criterion | 2.698984 |
| Log likelihood | | -513.4639 | Hannan-Quinn criter. | 2.656487 |
| F-statistic | | 4.202276 | Durbin-Watson stat | 2.058505 |
| Prob(F-statistic) | | 0.000413 | | |

*Author's Compilation, 2024*

The Pooled regression model revealed that CPD (Community project disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to 0.17 increase in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to -0.00 decrease in ROE (Return on equity). WD (Waste management disclosure) has a negative significant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to -0.00 decrease in ROE (Return on equity). TED (Training and educational disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 0.09 increase in ROE (Return on equity). FL (Financial leverage) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to 0.02 increase in ROE (Return on equity). FS (Firm Size) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 0.18 increase in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 66.08% variation in the companies in Kenya. Adjusted R-squared is 0.696386 indicating that the independent variable explained the dependent variable by 69.63% while the unexplained variation is about 30.37% (suggesting other variables not included in the empirical model of study).

***Table 4.5.2:*** *Fixed Effect Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | 0.247651 | 0.178088 | 1.390608 | 0.0052 |
| **OHS** | 0.086401 | 0.161891 | 0.533697 | 0.5939 |
| **WD** | 0.102681 | 0.164152 | 0.625527 | 0.0320 |
| **TED** | -0.188669 | 0.203098 | -0.928956 | 0.3535 |
| **FL** | 0.013459 | 0.028150 | 0.478108 | 0.0329 |
| **FS** | 0.630826 | 0.312648 | 2.017684 | 0.0444 |
| **C** | -4.827661 | 2.302444 | -2.096755 | 0.0367 |
| Cross section fixed (dummy variables) | | | | |
| R-squared | | 0.676509 | Mean dependent var | 0.069544 |
| Adjusted R-squared | | 0.681133 | S.D dependent var | 0.914254 |
| S.E. of regression | | 0.876381 | Akaike info criteri | 2.673973 |
| Sum squared resid | | 271.8877 | Schwarz criteri | 3.096244 |
| Log likelihood | | -487.4467 | Hannan-Quinn criter | 2.841264 |
| F-statistic | | 1.850665 | Durbin-Watson stat | 2.345956 |
| Prob(F-statistic) | | 0.001771 | | |

*Author's Compilation, 2024*

The Fixed Effect model revealed that CPD (Community project disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to 0.24 increase in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 0.08 increase in ROE (Return on equity). WD (Waste management disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to 0.10 decrease in ROE (Return on equity). TED (Training and educational disclosure) has a negative insignificant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 0.35 decrease in ROE (Return on equity). FL (Financial leverage) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to 0.01 increase in ROE (Return on equity). FS (Firm Size) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 0.63 increase in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 6765% variation in the companies in Kenya. Adjusted R-squared is 0.681133 indicating that the independent variable explained the dependent variable by 68.11% while the unexplained variation is about 31.89% (suggesting other variables not included in the empirical model of study).

***Table 4.5.3:*** *Random Effect Model*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| **CPD** | 0.181352 | 0.138902 | 1.305614 | 0.0925 |
| **OHS** | 0.018972 | 0.128192 | 0.148000 | 0.8824 |
| **WD** | 0.006503 | 0.115903 | 0.056109 | 0.0453 |
| **TED** | 0.069029 | 0.121892 | 0.566310 | 0.5715 |
| **FL** | 0.018266 | 0.026381 | 0.692406 | 0.0091 |
| **FS** | 0.185569 | 0.074244 | 2.499449 | 0.0128 |
| **C** | -1.519813 | 0.508553 | -2.988503 | 0.0030 |
| Cross-section random | | | 0.154845 | 0.0303 |
| Idiosyncratic random | | | 0.876381 | 0.9697 |
| R-squared | | 0.650167 | Mean dependent var | 0.060001 |
| Adjusted R-squared | | 0.675517 | S.D dependent var | 0.896103 |
| S.E of regression | | 0.880045 | Sum squared resid | 301.2726 |
| F-statistics | | 3.424312 | Durbin-Watson stat | 2.117508 |
| Prob(F-statistic) | | 0.002632 | | |
| R-squared | | 0.650167 | Mean dependent | 0.069544 |
| Sum squared resid | | 0.675517 | Durbin-Watson | 2.056663 |

*Author's Compilation, 2024*

The Random Effect model revealed that CPD (Community project disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in CPD (Community project disclosure) will lead to 0.18 increase in ROE (Return on equity). OHS (Occupational health and Safety disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in OHS (Occupational health and Safety disclosure) will lead to 0.01 increase in ROE (Return on equity). WD (Waste management disclosure) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in WD (Waste management disclosure) will lead to 0.00 decrease in ROE (Return on equity). TED (Training and educational disclosure) has a positive insignificant effect on ROE (Return on equity) which implies that a percentage increase in TED (Training and educational disclosure) will lead to 0.06 decrease in ROE (Return on equity). FL (Financial leverage) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FL (Financial Leverage) will lead to 0.01 increase in ROE (Return on equity). FS (Firm Size) has a positive significant effect on ROE (Return on equity) which implies that a percentage increase in FS (Firm Size) will lead to 0.18 increase in ROE (Return on equity). The coefficient of determination using r-squared shows that the independent variables CPD (Community project disclosure), OHS (Occupational health and Safety disclosure), WD (Waste management disclosure), TED (Training and educational disclosure), FL (Financial Leverage) and FS (Firm size) explained 65.01% variation in the companies in Nigeria. Adjusted R-squared is 0.675517 indicating that the independent variable explained the dependent variable by 67.55% while the unexplained variation is about 32.45% (suggesting other variables not included in the empirical model of study).

***Table 4.5.4*** *Hausman Test*

| Test Summary | Chi-sq. Statistic | Chi-Sq. df | Prob. |
|---|---|---|---|
| Cross-section random | 9.259418 | 6 | 0.1595 |

*Author's Compilation, 2024*

Based on the test results, it can be inferred that the random effects in the model are correlated with the independent variables. This means that the random effect model is preferred over the fixed effect model ($p > 0.05$). Therefore, the random effect model is used for drawing inferences for the objectives.

## 5. DISCUSSION

The analysis showed that community projects disclosure has a negative and insignificant effect on ROA of consumer and industrial goods firms in Nigeria. Findings in Botswana and Kenya revealed a positive and insignificant effect while a significant positive influence was confirmed in South Africa. It was also confirmed that Waste management disclosure has insignificant effect on return on equity of studied firms in Nigeria and Botswana. However, there is a significant influence for waste management disclosure on consumer and industrial good firms in Kenya and South Africa. This study is consistent with Nkwoji (2021); Powei (2020); Daferighe, Akpanuko, and Offiong (2019); Babalola (2012) who found that waste management

disclosure does not have significant effect on return on equity, but in deviation from the findings in Kenya and South Africa.

On the other hand, the regression analysis revealed that occupational health and safety disclosure has a positive and significant influence on the return on assets of quoted consumer and industrial goods firms in Nigeria, Botswana, and South Africa. Studied firms in Kenya showed a positive and insignificant influence on ROA. This finding is consistent with Nkwoji (2021); Daferighe, Akpanuko, and Offiong (2019); Alli, 2018; Nnamani, Onyekwelu, and Ugwo (2017) who discovered that occupational health and safety disclosure has insignificant effect on return on assets. However, the finding shows that occupational health and safety disclosure has a meaningful positive impact on return on assets in Nigeria, Botswana, and South Africa. This study is consistent with Odunsi, Adeaga, and Odeniyi (2019); Nwaiwu and Oluka (2018); Nnamani, Onyekwelu, and Ugwu (2017); Magara, Aming'a, and Momanyi (2015) who found that occupational health and safety disclosure has significant effect on return on assets.

The regression output for listed consumer and industrial goods firms in Nigeria, South Africa, and Kenya see a substantial impact from training and education disclosure on ROE. This finding is in line with results from earlier studies such as; Powei (2020), Odunsi, Adeaga, and Odeniyi (2019), Nwaiwu and Oluka (2018), Agbiogwu, Ihendinihu, and Okafor (2017), and Magara, Aming'a, and Momanyi (2015). Additionally, a positive and insignificant impact was established for listed consumer and industrial goods firms in Botswana. This result agrees with findings from previous studies (Nkwoji, 2021; Daferighe, Akpanuko, and Offiong, 2019) that that established that employees training and educational disclosure has not significantly affect ROE.

## 6. CONCLUSION AND RECOMMENDATIONS

Sustainable development as an evolving issue encompasses diverse areas of life. Corporate companies were established solely to increase the value of owners' investment in ways possible without considering the effects of their actions on its' stakeholders inclusive of the host community. It was ascertained that operation of manufacturing firms generates industrial spoils with negative impacts to the society. To salvage the dwindling economic crisis arising from corporate social failures, agitations by reputable international organizations entrenched the Global Reporting Initiative to encourage the imprecation for firms to report and disclose expenditures on social responsibility.

The study specifically provides empirical evidence on the effect of social accounting disclosure (Waste management disclosure and Occupational health and safety disclosure) on financial performance of non-financial firms in sub-Sahara Africa. This study concludes that community projects disclosure has a negative and insignificant effect on ROA of consumer and industrial goods firms in Nigeria. Botswana and Kenya revealed a positive and insignificant effect and a significant positive influence in South Africa. Waste management disclosure has insignificant effect on return on equity of studied firms in Nigeria and Botswana. There is a

significant influence for waste management disclosure on consumer and industrial good firms in Kenya and South Africa. Occupational health and safety disclosure has a significant positive influence on the return on assets of quoted consumer and industrial goods firms in Nigeria, Botswana, and South Africa, while an insignificant influence is established in Kenya.

Finally, it was concluded that training and educational disclosure substantially impact on ROE in Nigeria, South Africa, and Kenya, with an insignificant influence for firms in Botswana. It is therefore recommended that regulations mandating social accounting disclosures are promulgated for corporate firms. Additionally, consumer and industrial goods firms in Nigeria, Kenya, South Africa and Botswana are to prioritize social accounting disclosure and put a beam-light on waste management disclosure; this will boost their corporate image, increase performance and reduce industrial conflict.

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