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Abstract

Purpose: *The study examines how firm characteristics moderates the relationship between corporate sustainability reporting and financial performance of companies listed at the Nairobi Securities Exchange. Methodology: The target population comprised sixty-seven listed firms in Kenya. Secondary data was collected from published financial reports and company accounts filed at the Capital Markets Authority as at 31 December, 2020. Out of the sixty-seven companies, only forty-nine companies met the data requirement of the study. The study applied the Global Reporting Initiative framework establish the corporate sustainability reporting scores and the sustainability reporting index. Inferential and descriptive analysis was performed by E-views and SPSS. Moderation effect analysis was guided by Baron and Kenny (1986) steps of moderation.*

Findings: *Based on the study's findings, it was established that firm size has a statistically positive moderation effect on the relationship between the corporate sustainability reporting and the ROA. Additionally, the study also found out that the firm age has a statistically negative moderation on the corporate sustainability reporting-ROA relationship.*

Implications: *The managers and board of directors of corporates gain insight from the study results and use the findings as a justification towards aggressively engaging in corporate sustainability reporting and disclosures. The results show that companies that participate in sustainability reporting have a larger and a growing asset base, have a long standing and/or going concern and they tend to make high quality sustainability reports and disclosures. The findings also show that older companies were slow in reporting on sustainability reporting. Newer firms were aggressively participating in corporate sustainability reporting compared to older firms. The older firms were slow in adopting the corporate sustainability reporting concept and therefore there is a need make reporting on sustainability mandatory for all listed and non-listed companies. Further research can be extended to include other firm characteristic indicators such as firm liquidity and leverage. Further research can also be extended to include other moderators such as organization culture and stakeholder management. Research can also be extended to test the effect of corporate sustainability reporting on ROE, ROI, ROCE, Sales growth and Tobin's Q as other financial performance measures.*

Keywords: *Corporate Sustainability Reporting, Firm Characteristics, Financial Performance, Nairobi Securities Exchange*

Introduction

Unfavorable global climatic change has been associated with a high degree of industrialization and market sophistication. To respond to the issue of rapid climatic change, many companies, both private and public, have adopted the publication of sustainability reports and disclosures in order to demonstrate responsibility

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over the impact of their activities on the environment, economy, and community, so as to represent themselves as responsible corporate citizens, attract customers and other stakeholders, and gain a competitive advantage (Fombrun & Gardenberg, 2006). The pressure has been driven by investors' increasing desire to diversify their portfolios by investing in companies that are accurately responsive to corporate sustainability and have adopted green practices (Fischer & Sawczyn, 2013). Investors and other stakeholders, in general, have adopted this new strategy to appraise investments because they assume that in the long run or the future, shareholder value will be created by exploiting opportunities and managing threats or risks from ongoing environmental, social, ecological, and economic developments (Knoeffel, 2001).

Investment in corporate sustainability reporting by companies may lead to the generation of intangible resources such as increased innovation, improved organization culture, the attraction of high-quality human capital (Surroca, Tribó, Waddock, 2010), and enhanced company reputation (Orlitzky, Schmidt, & Rynes, 2003). A good reputation instills stakeholder confidence and enables a firm to attract socially responsive investors (Artiach et al., 2010). Companies that uphold higher standards of sustainability reporting and exhibit greater efficiency are likely to be larger in size, have a lower leverage ratios, and have higher cash flows, faster growth rates, higher share values, and larger asset bases. A company's size is known to impact both corporate sustainability reporting and performance positively (Artiach et al., 2010). Additionally, firm characteristics such as size, leverage, age, and liquidity play a mediating role in the relationship between corporate sustainability reporting and financial performance.

Corporate sustainability reporting is the disclosure and sharing of information on a company's economic, social, governance, and environmental impact. (Herzig & Schaltegger, 2006). Songi and Dias (2019) further explained corporate sustainability reporting as non-financial disclosures made by firms about their positive and/or negative economic, governance, and social impact and how this affects the firm's capacity to achieve high sustainability. Legendre and Coderre (2013) stated that larger and older corporations are required to release higher-quality sustainability reports as a result of stakeholder pressure and to adhere to higher GRI application thresholds in order to legitimize their operations and achieve higher financial performance.

Firm characteristics are activities within an organization that influence the actions taken by the organization so as to meet its performance goals and objectives. Structure, size, liquidity, leverage, management styles,

characteristics, and systems are the indicators that can lead to the success or failure of the organization's performance strategy (Ayyagari, Demirguc-Kunt, & Maksimovic, 2015). The size of the business, leverage, financial capacity, innovation and differentiation, sustainability, and success are all examples of firm characteristics (Bekiris & Doukakis, 2011). The demographic and managerial factors that make up the firm's internal environment are known as firm characteristics. Larger corporations tend to have greater political influence and attract significant attention from the media and various stakeholders, including the government. The scale of a company's activities may be used to measure environmental emissions. Furthermore, companies with higher levels of sustainability reporting and positive outcomes are projected to exhibit characteristics such as larger size, improved efficiency, a low debt-to-equity ratio, high growth rates, increased profitability, economies of scale, and high liquidity levels. Bigger firms are associated with larger asset bases and greater financial capacities that allow them to invest in sustainability reporting and this leads generation of higher financial gains (Artiach et al., 2010; Aggarwal, 2013).

Firm age is another vital firm characteristic of a firm that influences the firm’s relationship with its stakeholders, its experience, market size and/or share, and its strategic positioning in the market. Newer firms are faced with the challenge of establishing strong and lasting links compared to older firms, which have already established strong stakeholder relationships. Younger firms also lack the resources to invest in sustainability reporting. The newer firms may also lack legitimacy in the eyes of the stakeholders (D’Amato & Falivena, 2020). The older firms can compete, have more financial resources, and have gained legitimacy over time from the public (Rusila & Mukhzarudfa, 2019).

Financial performance encompasses the alterations in a firm's financial outcomes resulting from the decisions and actions taken by its managers. It pertains to the financial standing of a corporation within a specific timeframe (Robin et al., 2018). Financial performance evaluates a company's overall financial state during a given period. It can be used to compare the overall performance of various firms operating in the same industry (Nuhiu et al., 2017). Financial performance largely reflects the outcomes of the firm’s business sector, depicts the overall status of an organization's financial health over a specific duration, and also indicates how the management of the firm is utilizing its resources to maximize the wealth of the shareholders and profitability (Naz, Ijaz, & Nagvi, 2016). Firms are investing in both current and future economic, environmental, and social opportunities by focusing on creativity, quality productivity, and innovation. This has led to the creation of new knowledge and techniques that are directly linked to

improved profitability. Competitive advantage resulting from reputational benefits such as positive environmental performance, reduced risk of perceptions, and meeting the needs of stakeholders may be better reflected in market-based financial measures such as stock prices, while financial accounting measures may be a better indicator of organizational efficiency and capabilities (Orlitzky et al., 2003). ROA is a widely utilized metric for evaluating a company's financial performance, especially in studies concerning sustainability reporting. The study in question employed return on assets as a gauge of financial performance, which is calculated by dividing net profit by the company's total assets (Waddock & Graves, 1997; Callan & Thomas, 2009).

Research Problem

The call towards world transformation led to the birth of the Sustainable Development Goals during the United Nations Conference on Sustainable Development held in Rio de Janeiro in 2012. The conference came up with universal goals towards ending poverty and inequality, protection of the planet, good health, prosperity and justice for the people. In addition, rapid and unfavorable climatic changes in the 21st Century, nations have been forced to create green economies so as to ensure human well-being and address social injustices and inequality while at the same time lowering environmental hazards, negative social and economic challenges, and ecological inadequacies (Syampoy, 2017).

Company stakeholders such as investors are now demanding for more disclosures and reports on the how companies are addressing the impact of their actions and activities on the economy, society, environment. Companies face significant pressure to adapt to the evolving requirements of consumers, suppliers, and regulatory bodies (Hongming et al., 2020). As a result of the immense pressure, companies are increasingly seeking to represent themselves as responsible corporate citizens by participating in social, economic, environmental, and governance reporting and to legitimize their existence in the eyes of their stakeholders so as to survive (Siew, 2015; Fombrun & Gardberg, 2006). Companies are increasingly required to be more accountable for the social, economic and environmental consequences of their operations. However, there is no consensus among researchers on how corporate sustainability reporting affects their financial performance or the value added by investing in corporate sustainability reporting (Artiach et al., 2010).

The existing empirical evidence indicates inconclusive research findings on the linkage between corporate sustainability reporting and financial performance. The relationship between these two variables, as

depicted in the underlying literature, could be more inconsistent, complex, and not direct. Multiple variables may moderate and mediate the association of corporate sustainability reporting and financial performance, and it is essential to control for the influence of these mediators and moderators (Ullmann, 1985; Alshehhi et al., 2018).

The lack of consensus on the linkage of corporate sustainability reporting and financial performance has been attributed to the varying conceptualizations and operationalization of the study variables by researchers (Aggarwal, 2013). The multifaceted essence of corporate sustainability and reporting complicates its measurement (Moldavska, 2017). Studies have adopted different sustainability reporting and measurement tools or methodologies. The DSJI, a stock market index, has been commonly used to measure sustainability (Xiao, Faff, & Ghaghara, 2013). Other metrics that have employed to measure corporate sustainability reporting include the GRI index (KPMG, 2013), programs on qualitative sustainability, survey-based approaches, and benchmarking criteria

The research findings on the relationship between corporate sustainability reporting and country-specific factors differ from one country to another, which is largely attributed to the varying country-specific factors. To explain the contextual gaps, a few studies were reviewed. Siew et al. (2013) found that the majority of publicly traded Australian construction firms published low levels of sustainability reports, while construction companies that release non-financial reports outperformed those that do not in a variety of financial metrics. The link between social, economic, and governance scores and financial outcomes was also discovered to be weak. In their study, Kasbun, Teh, and Ong (2017) discovered a positive correlation between Malaysian public corporations' social, economic, and environmental reporting and financial performance indicators such as ROA. However, Ching, Gerab, and Toste (2017) found that the link between sustainability quality scores and financial performance was weak. Similarly, based on the study findings by Krause (2018), the association of social responsibility and financial performance was statistically insignificant. The relationship between corporate sustainability reporting and financial performance in Kenya remains largely understudied. To address the shortcomings of the varying measures and operationalization of the concepts adopted by different scholars in different economic contexts, the study adopted the GRI-G.4 framework to establish the scores. The study was also based on Kenyan listed companies and adopted only one measure of financial performance that is return on assets. Therefore, based on this background, this study examines the moderating effect of firm characteristics on the corporate

sustainability reporting-financial performance linkage among the companies listed at the Nairobi Securities Exchange in Kenya. The research question that arises is; do firm characteristics moderate the relationship between corporate sustainability reporting and financial performance?

Research Objective

The objective of this study is to determine the moderation effect of firm characteristics on the relationship between corporate sustainability reporting and financial performance of companies listed at the Nairobi Securities Exchange.

Literature Review

Theoretical Background

The relationship between corporate sustainability reporting and financial performance is founded on the stakeholder theory. The moderating effect of firm characteristics in the relationship is supported by resource-based theory. Stakeholder theory was originally advanced by Freeman (1984) and is one of the main economic theories that explain the corporate sustainability reporting and outlines the advantages of stakeholder management towards achieving improved financial performance. The stakeholder theory contends that investment in sustainability reporting and performance leads to the generation of positive financial returns through proper management of stakeholders (Artiach et al., 2010). Barnett (2007) supported stakeholder theory proposition by suggesting that firms that invest in reporting on corporate sustainability performance enjoy higher profits. To further support the underpinnings of the stakeholder theory, it was suggested that investment in corporate sustainability reporting and performance lead to improved relationships with stakeholders such as banks, current and potential investors, governments ,employees among other interested parties. The enhanced relationships with stakeholders may lead to improved employees' morale towards work, good corporate reputation, goodwill and better access to capital. This in turn leads to positive financial performance (Orlitzky et al., 2003; Surroca et al., 2010; Artiach et al., 2010).

The resource-based theory was first developed by Edith Penrose (1959). The theory argued that it is only firms with greater resource base can invest and participate aggressively in corporate sustainability reporting and performance. The theory further suggests that corporate sustainability reporting and performance is positively linked to the financial performance because firms that invest in corporate sustainability reporting

are well resourced and this lead to the generation of higher financial returns (Artiach et al., 2010). Ullman (1985) stated that the relationship between the corporate sustainability performance and financial performance may be mixed, complex and not direct and that there is likelihood of existence of mediators and moderators that may need to be controlled. There is also insufficient empirical and theoretical literature to fully conclude that the relationship between the corporate sustainability reporting and financial performance is direct.

Empirical Review

Artiach et al. (2010) conducted research to investigate the factors that influence high levels of corporate sustainability performance. The DJSI proxied corporate sustainability performance. The researchers used a stakeholder framework to evaluate the inventiveness of sustainability values for US businesses. The annual opinions given by DJSI to the SAM community indicate that the DJSI survey consisted of 107 separate firms for the period 2002–2006. For the study period, a maximum potential survey of 130 company observations a year was carried out for the leading corporate sustainability performance companies. The study showed that, relative to other companies, leading corporate sustainability performance companies were considerably bigger, experienced higher growth levels and development, leveraged stronger cash flows, and had a higher return on equity. The study did not show the influence that firm characteristics had on the environmental, economic, and corporate governance pillars of corporate sustainability. The study concentrates on the bigger companies in the developed economies and does not tell us the situation within developing economies and small companies. The study used Dow Jones Sustainability Index (DJSI) to measure the corporate sustainability reporting, but this study will apply the Global Reporting Index, which is widely accepted when it comes to measuring the corporate sustainability reporting.

Činčalová and Hedija (2020) conducted research on the impact of certain company characteristics, such as age, company size, profitability, and board gender diversity, on the association of corporate social responsibility and financial performance of companies listed in the Czech transport and logistics sector. The survey data, the Albertina database, and the business register were all used in the study. They applied the Pearson Spearman correlation coefficient and regression analysis as data analysis tools. The study identified statistically significant linkages between company size, corporate social responsibility, and FP. The analysis offered evidence that the relationship was not significantly influenced by the company's age or the board's gender diversity. The research time was short, and it would not be feasible for possible

financial outcomes to be estimated with accuracy. The report did not explore sustainability's environmental and economic aspects. The study focused on only the transport and logistics sectors, and the findings may not be generalizable. The study findings may also not be applicable to the Kenyan context.

The impact of stakeholder power and business characteristics on Chinese enterprises' social and environmental disclosure policies was explored by Lu and Abeysekera (2014). The study focused on a three-dimensional social and environmental disclosure index that covered quantity disclosure, kind of disclosure quality, and nature of disclosure items and was powered by stakeholders. The study focused on analyzing a sample of 100 companies listed on the Chinese Stock Exchange in 2008, with a particular emphasis on market segments. The findings of the study showed that while corporate social and environmental disclosures have had a limited impact on influential stakeholders in China, they have had a substantial impact on shareholders. Furthermore, business variables such as firm size, profitability, and industry classifications had a significant positive impact on social and environmental disclosures, according to the findings. The study did not discuss how the relationships between stakeholders were evaluated and measured or how they affected financial performance. The period of study was also too short. The study does not explain how stakeholder influence is measured. The context of the study was China.

Hu, Wang, and Xie (2018) investigated effects of corporate environmental responsibility on FP and the factors that moderated that effect. The study examined how the firm's characteristics influenced corporate environmental responsibility and business performance linkage. The research focused on a wide range of publicly traded Chinese companies from 2010 to 2015. Findings indicated that corporate environmental responsibility significantly affected financial performance. Larger companies with high asset tangibility and low state ownership experienced a stronger positive impact. According to the study, firms with a high concentration of ownership and minimal managerial ownership were also more likely to gain from environmental responsibility, implying that increased environmental engagements could be used as strategic tools to mitigate the negative effects of agency costs and poor corporate governance on firm valuation, especially by using return on assets and return on investment as financial performance measures. The study focused on only one pillar of corporate sustainability reporting. The study was carried out in China, and the results may not be replicable in Kenya. The study used the least-squares method, which may not assist in the identification of outliers in the study.

Lourenco et al. (2012) presented empirical evidence in regard to corporate sustainability performance and the market value of equity association. The Dow Jones Sustainability Index was used as a proxy for measuring corporate sustainability performance. The study adopted a combined approach, incorporating institutional perspectives, stakeholder theory, and resource-based research. Based on this framework, the researchers developed a series of hypotheses that established connections between the market value of equity and corporate sustainability performance. The empirical analysis relied on the 600 largest firms from Canada and the USA in the Dow Jones Global Total Stock Market Index for the period 2007–2010. Based on the analysis of North American companies, it was found that corporate sustainability performance positively and significantly impacted stock prices, surpassing conventional accounting metrics like earnings per share and the book value of equity. The results indicated that investors penalize large, profitable companies with low corporate sustainability performance even though incentives have been extended to them. The study did not study the economic and corporate governance pillars and how they influenced stakeholder engagement or how firm characteristics influenced them to impact either negatively or positively on financial performance.

Conceptual Framework

The conceptual model depicts a moderating effect of firm characteristics on the relationship between corporate sustainability reporting and financial performance of companies listed at the Nairobi Securities Exchange. A possible link between corporate sustainability reporting and financial performance was represented in the conceptual model as supported by Hongming et al. (2020). The model showed that firm characteristics moderate corporate sustainability performance and financial performance as supported by findings of Artiach et al. (2010). The conceptual model showing the linkages schematically between the variables of study is illustrated in Figure 1.1 below.

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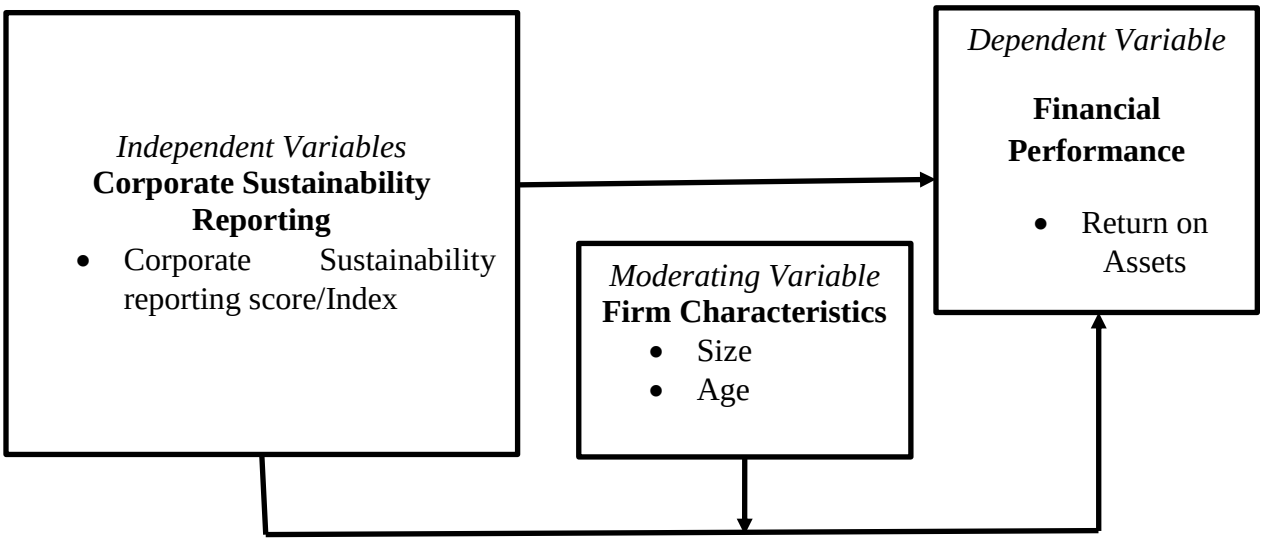

Research Hypothesis

H_{01}: The moderating effect of firm characteristics on the relationship between corporate sustainability reporting and financial performance is not significant.

Research Sub-Hypothesis

- ***H_{01a}:*** *The relationship between corporate sustainability reporting and financial performance of companies listed at Nairobi Securities Exchange is not moderated by the firm size.*
- ***H_{01b}:*** *The relationship between corporate sustainability reporting and financial performance of companies listed at Nairobi Securities Exchange is not moderated by the firm age.*

Methodology

The study's target population was sixty seven companies listed at the Nairobi Securities Exchange as at 31 December, 2020. Out of the 67 companies listed firms, only 49 firms met the data requirements sought for computing the corporate sustainability scores, index and financial performance measures for the period 2011 to 2020.Therefore, the study analyzed data from 49 companies.

Secondary data used in the study was obtained from the integrated annual reports of the listed companies, audited annual financial reports, annual corporate governance statements, sustainability reports and disclosures, environmental reports and the Nairobi Securities Exchange handbooks. Return on assets for each company for each year during the period 2011-2020 was computed. Natural log of total firm's assets

were also computed based on the summarized secondary data. The natural log of total of firm's assets was used as a measure of firm size. The age of the company since incorporation was obtained from the company's website.

Firm characteristics was operationalized in terms of firm size and firm age. The size of the firm was computed for all listed firms by taking a natural log of total assets (Waddock & Graves, 1997; Bekiris & Doukakis, 2011). Firm age was measured by taking the natural log of the age of the firm since incorporation as proposed by Pickering (2011); D'Amato & Falivena (2020). Content analysis was employed to establish the sustainability scores. Corporate sustainability reporting was operationalized by computing governance, social, environmental and economic scores. The GRI-G4 framework was applied establish the scores. A total of 70 items of sustainability disclosures under governance, social, environmental and economic pillars were identified. A binary scoring system was adopted. Each item of disclosure was given a dummy weight "0" indicating absence of the item in the report while weight of "1" indicated the presence of item of disclosure in the report. Total scores under each pillar were computed and expressed as percentages. The composite sustainability reporting index was also computed as done by Malik & Kanwal (2018); Hongming et al. (2020). Return on assets as a financial performance measure was expressed as earnings before interest and tax divided by the total assets of the firm for each company between the years 2011 and 2020. ROA is a widely utilized metric for evaluating a company's financial performance, especially in studies concerning sustainability reporting.

Based on Baron and Kenny (1986) multiple regression models, three steps were utilized to test the moderation effect of firm characteristics on the relationship between corporate sustainability reporting and financial performance. Correlation analysis was done to establish the relationships among the variables of the study, to reveal the direction as well as the extend of the relationships among the study variables. The Baron and Kenny (1986) models adopted were as follows:-

$$FP= \alpha +\beta 1SRI+\varepsilon \quad \text{(3.1)}$$

$$FP= \alpha +\beta 1SRI +\beta 2+CSR+\beta 3FS+B4\ (CSR\times FS) +\varepsilon \quad \text{(3.2)}$$

$$FP= \alpha +\beta 1SRI +\beta 2CSR+\beta 5F\_AGE+B6\ (CSR\times F\_AGE) +\varepsilon \quad \text{(3.3)}$$

Where;

α: intercept or constant

β1, β2, β3, β4, β5 & β6: are regression coefficients

ε: is the error term

FP: is Financial Performance measured as Return on assets

CSR: Corporate Sustainability Reporting measured as Corporate Sustainability Reporting Index

Findings and Discussions

To test the presence of relationships among the study variables, Pearson Moment Correlation was utilized. Results showed that financial performance measured by returns on assets, a positive and significant relationship with corporate sustainability reporting (r=0.008) that is for every unit of variance of corporate sustainability reporting activity undertaken, returns on assets of listed companies varied by 0.008 units in the same direction. This implied that as corporate sustainability reporting activities increased, the overall financial performance among the listed companies was too accelerated.

Table 1: Regression Result of Corporate Sustainability Reporting and Financial Performance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSR	19.17804	8.552879	2.242291	0.0254
C	7.667320	4.000149	1.916759	0.0559
R-squared	0.010198			
Adjusted R-squared	0.008170			
S.E. of regression	32.45472			
Sum squared resid	514014.8			
Log likelihood	-2399.402			
F-statistic	5.027870			
Prob	0.025391			
Dependent Variable: FP(ROA)				
Predictors: Constant , CSR				
Sample: 2011-2020				
Periods included: 10				
Observations: 490				

The estimation of the moderation effect was done using the technique suggested by Kenny and Baron (1986). To do this, the procedure entailed testing the direct effect of corporate sustainability reporting (CSR)

financial performance, the moderating variable firm characteristics measured by size and age, and lastly the interaction term's effect on the relationship between corporate sustainability reporting and firm characteristics (CSR*FS; CSR*F_AGE) on financial performance (dependent variable).The first step's model was expressed as follows:

$FP= \alpha +\beta_1 SRI+\varepsilon$……. (1)

From Table 1 results, the relationship between corporate sustainability reporting and financial performance was positive and significant with a coefficient of 19.178 and p value of 0.0254.The research findings indicate that corporate sustainability reporting was a significant predictor of return on assets of companies listed at the Nairobi Securities Exchange (β=19.178, $p<0.05$). The overall model was statistically significant. The adjusted (R^2), which indicates the amount of dependent variable's variation explained by the independent variable was reported (Adjusted R^2= 0.0082, F=5.03 and p-value of 0.0254). Generally, based on the overall model's results, there exist a statically significant relationship between corporate sustainability reporting and financial performance of companies listed at the Nairobi Securities Exchange.

Table 2: Regression Result of Moderation Effect of Firm Size on the Relationship between Corporate Sustainability Reporting and Financial Performance

Var	Coeff	Std. Error	t-Stat	Prob.
C	-18.2747	5.0642	-3.6086	0.0003
CSR	40.3508	6.1444	6.5671	0.0000
FS	4.8608	0.8069	6.0240	0.0000
CSR*FS	4.6219	0.7931	5.8278	0.0000
R-squared	0.1981			
Adj R-squared	0.1931			
S.E. of regression	12.5677			
SS resid	76604.4400			
Log likelihood	-1929.5760			
F-statistic	39.9324			
Prob	0.0000			

Dependent Variable: FP
Predictors: CSR, FS, CSR*FS
Sample: 2011-2020
Periods included: 10
Observations: 49

Table 2 presents the results of hierarchical regression analysis conducted the test the moderation effect of firm size on the relationship between the corporate sustainability reporting and return on assets. As per

shown in the model, corporate sustainability reporting, the firm size and the interaction term (CSR*FS) significantly predict return on assets (F=39.932, p<0.05). Adjusted R^2 for step 1 was 0.008 as shown in Table 1.The model further indicates that the variation in return on assets explained by corporate sustainability reporting and firm size while factoring in the interaction (CSR*FS) changed to 0.193(19.3%) resulting to a variance of 11.3% in the adjusted R^2.

Table 3: Regression Result of Moderation Effect of Firm Age on the Relationship between Corporate Sustainability Reporting and Financial Performance

Var	Coeff	Std. Error	t-Stat	Prob.
C	48.0340	13.7072	3.5043	0.0005
CSR	-59.9561	30.1444	-1.9890	0.0473
F_AGE	-20.3390	7.5092	-2.7086	0.0070
CSR*F_AGE	36.6786	16.5139	2.2211	0.0268
R-squared	0.0226			
Adj R-squared	0.0166			
S.E. of regression	13.8747			
SS resid	93365.8300			
Log likelihood	-1977.9550			
F-statistics	3.7405			
Prob	0.0112			

Dependent Variable: FP
Predictors: CSR, FS, CSR*F_AGE
Sample: 2011-2020
Periods included: 10
Observations: 49

To construct an interaction term, the CSR, the firm size and firm age were multiplied and a single item indicator signifying the product of the two measures computed (CSR*FS, CSR*F_AGE).The results of moderating effect of firm size and firm age as indicators of the firm characteristics in this study, was presented under Table 2 and Table 3.

Table 3 presents the results of hierarchical regression analysis conducted the test the moderation effect of firm age on the relationship between the corporate sustainability reporting and return on assets. As per shown in the model, corporate sustainability reporting, the firm age and the interaction term (CSR*F_AGE) significantly predict return on assets (F=3.74, p<0.05). Adjusted R^2 for step 1 was 0.008 as shown in Table 1.The model further indicates that the variation in return on assets explained by corporate sustainability

reporting and firm age while factoring in the interaction (CSR*FS) changed to 0.02(2 %) resulting to a negative variance of 6 % in the adjusted R^2.

The results of step one test of moderation (Table 1) showed a significant linkage between CSR and ROA ($p<0.05$). Test of regression coefficients (β) of the second model show that the inclusion of firm size as a predictor of ROA was positive and statistically ($\beta = 40.351$, $p<0.05$). In the third model hierarchically, the inclusion of the firm age, shows that regression coefficient was negative and statistically significant ($\beta = -59.956$, $p<0.05$).

The regression models 2 and 3 were presented as follows:

FP = -18.275+ 40.351 CSR+ 4.861 FS + 4.622 (CSR*FS)……. (2)

FP = 48.034 -59.956 CSR- 20.339F_AGE+ 36.678(CSR * F_AGE)…….. (3)

The study findings established that firm characteristics (firm size and firm age) moderate the relationship between corporate sustainability reporting and financial performance (ROA) all the interaction terms and the overall moderation models were significant. This meant that most of the listed companies that are bigger in terms of asset base, make higher profits and having a greater access to capital, their effects on corporate sustainability reporting activities on increasing returns on assets yield greater financial results than smaller companies with small asset base, lower profits and minimal access to capital. The study results also meant that older firms in terms of incorporation were very slow in adopting the concept of sustainability reporting despite the fact that they were endowed with larger asset bases, enjoyed higher profits and had easy access to capital. The results meant that firms that were incorporated recently in Kenya were aggressively participating in corporate sustainability reporting and this translated to greater yields in their returns on assets. Based on the findings, the study null hypothesis and null sub-hypotheses were rejected.

The findings on the effect of firm characteristics on the relationship between corporate sustainability reporting and financial performance are backed by those of Artiach et al. (2010).They concluded that firms that were larger in terms of assets, profit levels and access to capital were well governed and the same also allowed them aggressively address the social, environmental and economic issues emanating from the impact of their business activities that lead achievement of set organizational goals. From the resource-based theory viewpoint, firm characteristics may be viewed as enablers of corporate sustainability reporting

among listed firms, that leads to growth in asset, profits and capital base as argued by Surroca et al.(2010) ; Orlitzky et al. (2003) From the stakeholder theory viewpoint, firm characteristics, organization capabilities and culture can be broadly viewed as the purpose of the firm that extends the creation of economic value while addressing the interests of the society. Stakeholder theory proponents such as Artiach et al. (2010); Marcoux (2013) argued that in the governance of any firm, overriding interests among the different stakeholders of the firm should be addressed without partiality and a balance struck. Therefore both resource-based and stakeholder theory support this study but stakeholder theory dominates the study as it strives towards striking in addressing the stakeholder concerns and/or interests. The stakeholders are very key in as far as survival of a firm is concerned. They influence business policy development and adoption, determines firm size, and they push the organization towards proper governance, social responsiveness, environmental management and contribution towards economic growth and development.

Policy and Practice Implication

Findings will aid corporate managers to appreciate sustainability reporting, intangible resources, firm characteristics and financial performance linkages and its components. Regulators like Capital Market Authority and National Environmental Management Authority can benefit from findings specifically when engaging in the process, development and issuance of prudent rules on corporate sustainability reporting. The development of sustainability reporting guidelines in Kenya should be fast tracked to ensure that the sustainability reporting and firm characteristics fully factored in the regulation so as protect stakeholders and create value for firms.

The results of this study also emphasize on the importance of fully adopting sustainability reporting among the listed companies in Kenya while at the same time appreciating the stakeholder networks. The company's management and the company as a whole must be aware of the valued created while engaging in sustainability reporting. The managers should also appreciate that sustainability reports could at one hand be an enterprise's tool of marketing and promotion and the other hand a point at which information is disseminated to customers, existing and future investors among other interested stakeholders and third parties. Therefore, investors stand to benefit by making investment decisions based on the sustainability reports prepared and issued by corporates.

The findings of this study will aid regulators of listed companies to develop policies that will ensure protection of investors' interest. The sustainability reporting and its components used in the study will assist the International Accounting Standards Board that develops accounting standards to look into accounting choices that are at discretion of managers such as choice of accounting methods for environmental accounting and reporting, corporate governance reporting, social responsibility reporting among others but has an impact on firms' financial performance. The study further implies that the corporate managers should now go beyond financial reporting and adopt also the non-financial reporting that is integrated financial reporting. The diverse stakeholders groups are more enlightened and are demanding more and more information so as to make informed decisions. Integrated financial reporting is being practiced by a few firms listed in Kenya and therefore the Nairobi Securities Exchange and the Capital Markets Authority should now make it mandatory to all firms both listed and non-listed to issue annual and/or periodic integrated financial reports in an objective and transparent manner.

Conclusions and Recommendations

The rejection of null hypothesis (H_1) implied that firm characteristics (size and age) had a moderating effect on the corporate sustainability reporting- financial performance relationship, among the companies listed at the Nairobi Securities Exchange. Therefore when making the decisions on the link between corporate sustainability reporting and financial performance as measured by return on assets, firm characteristics studied should regarded as key factors of consideration. It can be concluded that firm (size and age) plays a key role in explaining how corporate sustainability reporting affect the return on asset as per the stakeholder theory propositions. The study provides a clear evidence that firm size has a positive influence on the relationship between corporate sustainability reporting and financial performance as measured by ROA. On the other hand, firm age has a negative effect on the corporate sustainability reporting- financial performance link.

Company boards and managers should therefore gain this study's insights and stress on the importance of their growing in terms of size and having sufficient capital that allows them aggressively engage in corporate sustainability reporting so as address the societal concerns and this in turn leads improvement in terms of asset base, profitability, more access to financing and economic value creation. All the listed companies regardless of their age since incorporation, should consider participating in corporate

sustainability reporting and disclosures so as to safeguard their survival in the long-term, in the eyes of stakeholders.

A further study can be conducted to test on the moderation effect firm size and firm age as firm characteristics, on the relationship between corporate governance reporting, social responsiveness reporting, environmental reporting, economic reporting and ROA as financial performance measure. A study can also be conducted that targets non-listed companies in Kenya and similar study variables tested. A similar study can also be extended to other developing economic contexts that would bring more insights into the relationship among the study variables.

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