

# **CORPORATE SUSTAINABILITY PRACTICES AND FINANCIAL PERFORMANCE OF FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE, KENYA**

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## **ABSTRACT**

Adoption of sustainability practices with elements of social, economic, environment, technological, empowerment of all staff and strategic planning might change the poor financial performance trends. This study investigated on corporate sustainability practices and performance of firms whose shares are traded on the NSE. Study objectives covered; examining the effect of social, economic and environmental sustainability on financial performance of firms whose shares trade publicly on NSE. The study was anchored on agency theory, stakeholder theory and legitimacy theory. Descriptive research design was employed in the study and the target population was finance managers working in the 56 firms listed at the NSE and a census sampling was applied, such that the sample size was 56 respondents. A pilot study was conducted to ensure the instrument is reliable and valid before data collection process. Primary data was collected through a drop and pick later method. Descriptive statistical analysis was undertaken using mean, frequencies

percentages and standard deviation. Inferential statistics were also conducted through ordinary least square model. The study established that social, economic and environmental sustainability had significant effect on performance outcomes. Corporate sustainability practices therefore had significant effect on financial performance. In recommendations, stakeholder engagement managers and the public relation managers should invest more resources in CSR activities to the community. ICT managers of the respective listed firms should carry out regular maintenance of the existing technologies to be utilized in cutting down costs of operation. Senior management team of the listed firms in Kenya should adopt solar technologies to safeguard the environment.

**Keywords:** Corporate Sustainability Practices, social sustainability, economic sustainability, environmental sustainability and Financial Performance.

## **INTRODUCTION**

Corporate sustainability is becoming a more critical part of business growth. Successfully managing sustainable activities is key to maintaining a competitive edge. In today's business world, corporate sustainability is becoming increasingly relevant. The positive impact of corporate sustainability on business efficiency, such as improved credibility and income, can explain the rapid spread of corporate sustainability practices (Laskar, 2018). Companies are required to do more under CSR than they are required to do by the legal provisions relating to the safety of products, protection of the environment, adhering to labour standards, giving priority to development projects in the community, observe human rights and keeping corruption at bay among other practices.

Across the globe, there has been an increase in sustainable market size that has grown in investment in corporate sustainable projects by 30% in the period of 2016-2019. Investors have an excess of USD 30 trillion in assets, of which 75% are held by institutional investors whereas the remaining quarter is held by retail investors. However, the sustainable investments in a nation are financed by public equities to the tune of 55 percent and 36 percent fixed income assets (Global Sustainable Investment Alliance, 2019).

The European Union is the largest investor in sustainability projects at USD 14 trillion, followed by United States with USD 12 trillion of assets and third is Japan USD 2 trillion. Many other countries have done little in terms of investing in sustainability projects or push for adoption and implementation of sustainability practices. The WBCSD (2020) noted that the Indian member companies have taken climate actions and transformed their operating systems as a way to attain 100% transition to a sustainable world. The WBCSD provided the members with a platform for advocating and impacting organizations with sustainability measures and practices that will keep the globe safer for future generations.

In Turkey, Önder (2018) noted that firms that had adopted sustainability practices gain value in the business sense, had higher reputation and better management of organizational skills and higher commitment levels that contributed to the long-term growth of the economy. When these organizations can work with all stakeholders like communities, general society and workers to improve living conditions and quality of life, they gain higher status and strong corporate image. Using data gotten from Japan and India, it was established that corporate sustainability significantly affected financial results as posted by firms in both nations (Laskar, Chakraborty and Maji, 2017).

Regionally, Choongo (2017) noted that Zambian SMEs have adopted corporate sustainability and corporate social responsibility whose focus has been to grow the financial targets through social, economic, and environmental aspects of the practices and how the business operates. In Ghana, Ngwakwe, Awunyo-Vitor and Akoto (2014) noted that only 32% of small audit firms were aware of sustainability reporting and 98% of these firms noted that there was value in sustainability reporting. There was need to educate and create awareness on sustainability practices like wastage reduction and reporting to streamline operational processes and gain in higher returns. Isanzu (2013) noted that firms that engaged in SRI recorded positive improvement in financial outcome results.

Locally, Gatimbu, Ogada, Budambula and Kariuki (2018) revealed that the tea processors that had employed environmental sustainability measures gained little in terms of environmental efficiency in relation to profitability. Tea processors with an environmental performance score of more than 80% had a meager profit margin of less than 1.23 %. Omuom (2020) looked at the efforts made to promote enterprise sustainability through the green marketing models in Kenya. It was revealed that competitive advantage, environmental protection regulation, cost efficiency and consumer behavior were key factors in the adoption of the green marketing model. Wanjala (2016) focused on state companies in Kenya to

investigate corporate governance and how it affects results. According to the report, the board of directors' diversity, the CEO's characteristics, and the audit committee's activities all have a major impact on firm results. The weak corporate governance structures of listed companies on the Nairobi Securities Exchange, such as CMC Motors and Uchumi, are largely to blame for their poor performance.

The ability of a company to ensure that its activities are effective, sustainable, and viable is reflected in its performance outcomes as expressed in monetary terms. This is normally determined by how effectively an organization utilizes available capital to achieve the set goals and objectives (Galant & Cadez, 2017).

Different sectors of the economy measure performance using different parameters, for instance agricultural-based companies may consider amount of grain output, market prices of the produce and profit margins, while service-based sector like hospitality look at volume of customers visiting their establishments and the services they consume, net profits and earnings (Mwanja, Evusa & Ndirangu, 2018). The performance of the sectors vary with some rising and others declining and at the same time, some sectors could be advancing yet one of the listed firm is doing poorly. Some have been delisted due to irregularities or poor performance, but the NSE has continued to expand with green bonds launched in 2019.

This market was founded in 1954 by a group of stockbrokers to assist businesses in raising capital through the selling of securities (debts and equities) (NSE, 2021). The NSE is a stock exchange where shares are traded. The NSE assists companies in raising funds for programs that boost efficiency by facilitating securities transactions. In 2018, there were 65 firms listed on NSE under different segments. As of August 2021 there are 56 firms listed under 11 different segments and trading partners and brokers who help in buying and selling of shares for individuals and corporates.

The market is supervised by the Capital Markets Authority (CMA) which seeks to ensure that listed firms adhere to good corporate governance practices. NSE has taken measures to preserve, protect and conserve the environment, through its corporate responsibility functions. It has gone a step ahead and launched the Green Bonds in 2019 and its strategic plan for 2020 -2024 features sustainable business growth through partnerships and inclusivity, use of technology and innovative processes and employee empowerment through training programs.

### **Statement of the Problem**

Firms listed at the NSE face challenges in its financial performance and some have reported declining profits and even losses. According to the CMA Report (2018), there were a total of 15 companies that traded at a loss, 25 had declined profits and 25 signaled having reduced profits in the financial year 2017. At the same time, the NSE deregistered two firms (Baumann Limited and Hutchings Biemer shareholders) from stock market in 2017 as they were unable to uphold regulatory and financial obligations. Poor financial performance is

also attributed to increased administrative costs by 12% from Kshs.560 Million to Kshs.625 Million in 2019; declining shareholders' funds by 3%, ROE by 3.9% and ROA by 3.4% in the 2018/19 period (NSE, 2021).

The declining financial performance metrics such as ROA, ROE, shareholders' fund and equity trading levies and the increase in administrative costs can spell doom for many of the listed firms unless the trend changes (Engert & Baumgartner, 2016). Employing sustainability practices such like diversification of board members, awareness creation, training and education the people and pushing for use of modern technological systems and applications to reduce operational costs can help shift the performance trends. According to Lassala, Apetrei and Sapena (2017) sustainability practices with social, environmental and economic aspects have been employed by different firms resulting in improved financial performance. This study seeks to understand if firms listed at the NSE can improve their financial performance through employment of corporate sustainability practices.

Studies on corporate sustainability practices and financial performance outcome post divergent results. For instance; Alshehhi, Nobanee and Khare (2018) assessed how sustainability practices affect corporate financial results in firms. Findings indicate that sustainability practices positively affected financial performance. This study finding is limited in connection to the current study because of contextual differences between research and development sector and other segments available at the NSE. Jha and Rangarajan (2020) investigated how practices adopted on sustainability affected performance outcomes among firms in India. The findings show that SRI investment has no relationship with performance results registered by firms. These results indicated that the relationship was negligible for Indian firms in aggregate. The study presents a contextual gap which limits application at the NSE. Gok, Ozdemir and Unlu (2019) study was on corporate sustainability practices and performance outcomes as measured by ratios as evidenced in Turkish manufacturing industry. The study compared sustainable companies versus control companies in terms of their financial performance for 2016 and 2017. The results were mixed since in 2016 sustainable firms did better than control ones while in 2017 the financial performance variables were opposite. The gap created is in context as the study was done in Turkey and manufacturing sector.

The studies reviewed above present gaps from the concepts discussed, context covered and methodologies adopted. This therefore presents a justification for assessing the effects of corporate sustainability practices on performance of firms listed at the NSE in Kenya.

### **Study Objectives**

- i. To determine how social and economic sustainability affect performance of firms listed at NSE, Kenya
- ii. To determine the effects of economic sustainability on performance of firms listed at NSE, Kenya

- iii. To assess how environmental sustainability affect performance of firms listed at NSE, Kenya

## **Organization of the Paper**

This research study is organized into introduction where key concepts and context are discussed. It also looks at the theoretical literature review research methodology, data analysis and conclusions and recommendations.

## **THEORETICAL LITERATURE REVIEW**

### **Agency Theory**

The proponents of this theory are Jensen and Meckling (1976) where they argued that there are generally competing desires and views between the agent and the principals, resulting in agency costs. Conflicts between the principal and the agents can arise from different situations, but the misalignment of the agents' and the principals' goals and interests is likely to play a major role. The well-functioning market is projected using the agent theory where there is perfect knowledge flow and excellent monitoring. The simplicity with which the agents' and principal's incentives can be aligned is another characteristic of such a market. If the principal is unable to control how the agents are behaving, rewards and penalties may be devised to ensure that optimum conduct is achieved (Kultys, 2016).

The relationship that occurs between the agent and the principal, who are the entity's managers and shareholders, is a central underlying element in this theory. Owing to a rise in the number of scandals that have impacted the success of most companies today, the theory has remained critical and important. It is a well-known fact that the shareholders (who own the company) and the company's management, who are in charge of management have competing interests. There will be a substantial increase in the degree of risk in the firm if there was insufficient transparency. A firm's ability to reduce the extent and degree of knowledge asymmetry, as well as the risks that investors perceive, improve market performance, and lower the cost of capital to a business enterprise, is enhanced by corporate sustainability (Chang, Kang & Li, 2016). The opposing costs can be separated into control, structuring, and contract bonding costs under this agency theory. When it comes to aligning administrative and shareholder practices, the use of contracts becomes so costly.

According to the agency theory, contract formation is crucial for reducing agency expenses while ensuring that the agent's and principal's priorities are well aligned. According to the agency theory, there is no need to balance the rewards between the agents and the principals in markets that are doing well and have perfect knowledge flow (Parker, Dressel, Chevers & Zeppetella, 2018). If the principal can keep track of how the agents are doing, sanctions and approvals can be placed in order to ensure that the agents are working at their best. Furthermore, in cases where an agent is conscious of the principle discovering their poor

performance record and that opportunity to replace the agent are open in the market, they will not post poor performance records.

The study examines the agent as managers on behalf of the owners and how they can exploit the social environment to improve gains made to the owners and investors. Thus the social aspect play a part in the success or failure of an organization and agents must consider that during the planning and management of firms. The theory is relevant by exposing how social sustainability elements can affect performance outcomes in listed firms.

### **Stakeholder Theory**

Freeman (1984) was the first to propose the stakeholder theory. This school of thought views a business can as a system that allows individuals to generate value for stakeholders. It argues that stakeholder interests in an organization are wide and need to be observed for future sustained operations and outcome. Once and for all, this worldview connects business and capitalism to ethics. It identifies the interests of various stakeholders in an organization so that managers can find ways of ensuring that they are considered in their operations.

According to the theory, a company's primary duty to its shareholders is to ensure that it produces large profits for them, thus maximizing their wealth and company processes are generally plagued by ethical and legal problems. According to the theory, the firm does not harm the culture or society within the establishment. Individuals that have an interest in the company and are influenced by its activities are referred to as stakeholders. Stakeholders have an impact on how the company works and achieves its goals and objectives.

The stakeholder theory focuses on the entity's ethical policies and how they impact the different participants in the company (the stakeholders), such as the current employees, local community representatives, creditors, and suppliers. As far as firm management is concerned, the theory plays an important role in discussing principles and morals (Miles, 2017). One of the most popular versions of this stakeholder theory is to define the firm's particular stakeholders and to come up with scenarios in which these parties are considered stakeholders. Therefore, it is important to consider the economic value of each person or party before they become part of the stakeholders of the company. The stakeholders' social network can be a source of success of organization and thus must be carefully considered.

Several stakeholders, including lobbying organizations, the government, consumers, creditors, vendors, and environmentalists, hold the entity largely responsible (Freeman & Dmytriiev, 2017). The theory contends that the numerous stakeholders' experiences inform and influence the firm's profitability and success. According to the theory, organizational sustainability is an important step in demonstrating a strong dedication to community needs. The theory is important is explaining how various stakeholders add value and can help in exposing economic and social sustainability in affecting the performance of organizations.



## **EMPIRICAL LITERATURE REVIEW**

### **Social Sustainability and firm Performance**

Phan et al., (2020) investigated on how different practices of sustainable development relates with performance outcomes in firms among Textile Firms in Vietnam. It set to assess how the sustainable practices of a firm relate with the financial performance. Through a mixed method survey and a population of 389 firms. The findings of the study show that the practices of sustainable development had a positive effect on the financial performance. Companies are required to plan beyond narrow scope of profitability and fiscal obligations by investing in practices that promote environmental conservation beyond the current generation such that future generations can enjoy environmental benefits too. Corporate sustainability continues to influence implementation of business plans. Therefore, it is important that firms institute practices that promote the ability of an organization to deliver on its current mandate while preserving and promoting conservation of natural resources within the environment for the benefit of future generations. Corporate sustainability necessitates a shift away from the conventional firm performance measurement towards a measurement that takes into account social and environmental wellbeing. Three guiding principles guide it in this endeavor: environmental integrity, social equality, and economic stability. This study context was Vietnam focusing on only textile firms as opposed to firms in different segments hence limiting its findings.

Wasara and Ganda (2019) researched on how the disclosure of corporate sustainability relates with firm performance at the Johannesburg Stock Exchange (JSE). The study was aimed at assessing how the disclosure of corporate sustainability relates with the return on investment. The study targeted ten mining firms listed on the JSE listed. A tool was developed to collect data on sustainability parameters which revealed that environmental disclosure negatively related with the return on investment. It was recommended that there be firms disclose their actions on SRI for prolonged future competitiveness. For a company's competitiveness, survival, and local community creation, management impacts on workforce shifts and takes SRI seriously. The willingness of cultivating innovativeness, which reflects an organization's entrepreneurial orientation, is closely related to a company's dedication to social sustainability. Innovativeness refers to the process of achieving creativity and improving the learning ability to bring innovative perspectives into motion. This study focused on disclosure and financial performance. It did not focus on sustainability practices like social, economic and environmental hence the gap.

### **Economic Sustainability and Financial Performance**

Alshehhi et al. (2018) assessed on how the practices of sustainability affects corporate performance. The study adopted the use of content analysis. The analyzed data revealed that corporate sustainability positively related with financial performance. Environmental sustainability has developed itself as a key tool for businesses to meet the increasing demand



for accountability from consumers and other stakeholders. Organizations that practice sustainability voluntarily share information publicly so that the general public and stakeholders can see and find ways of being associated with them. This enables businesses to close knowledge gaps and improve clarity about their positive and negative sustainability performance. Investors will be able to make more accurate valuations and better allocate their funds to businesses that have a positive effect as a result of the increased transparency. Companies will have stronger competitive positions and market advantages as a result of demonstrating their engagement on matters relating to SRI, and accountability. The study was premised voluntarily sharing fiscal, environmental, and social effects of firms operations where the practices are bound by law unlike in Kenyan context where they are not.

Hussain (2015) assessed how sustainability performance affects performance among the global fortune (N100) firms. The study assessed the effect of sustainability performance on performance of global fortune (N100) firms. Secondary data was collected from financial statements and other publications on the firms studied. The findings of the study showed that economic performance data is irrelevant, while the effect of SRI positively impacted performance outcomes. There is no evidence that there is a connection between SRI and ownership. Value formation, accountability assurance, and performance improvement are all goals of sustainable development. According to the value creation principle, businesses should produce the greatest number of goods and services with the least amount of scarce capital while maintaining the highest level of quality and productivity in order to maximize consumer satisfaction. The principle of accountability assurance entails the process of conducting business in an ethical and socially responsible manner. Timely and deliberate preparation, proactive actions, efficient execution, constant monitoring, and enforceable accountability are all needed for a proper assurance process. The principle of performance enhancement denotes the achievement of long-term performance. This helps in paving the way for the firm's positive impacts to be strengthened while negative impacts on society and the environment are mitigated. This study focused on sustainability performance and financial performance of global fortune (N100) firms and not sustainability practices.

Sy (2016) assessed on how the practices of sustainability affects the performance of a firm. The study's investigated SRI effects on firm's performance. The findings of the study revealed that the practices of sustainability significantly impacted the firms' overall performance. Organizations are constantly under pressure from a number of stakeholders in concentrating on sustainability and keeping themselves accountable for their multiple bottom line approach of operations (MBL), which includes economic, financial, governance, social, and ethical activities. SRI help firms achieve a holistic growth that leads to improved firm performance.

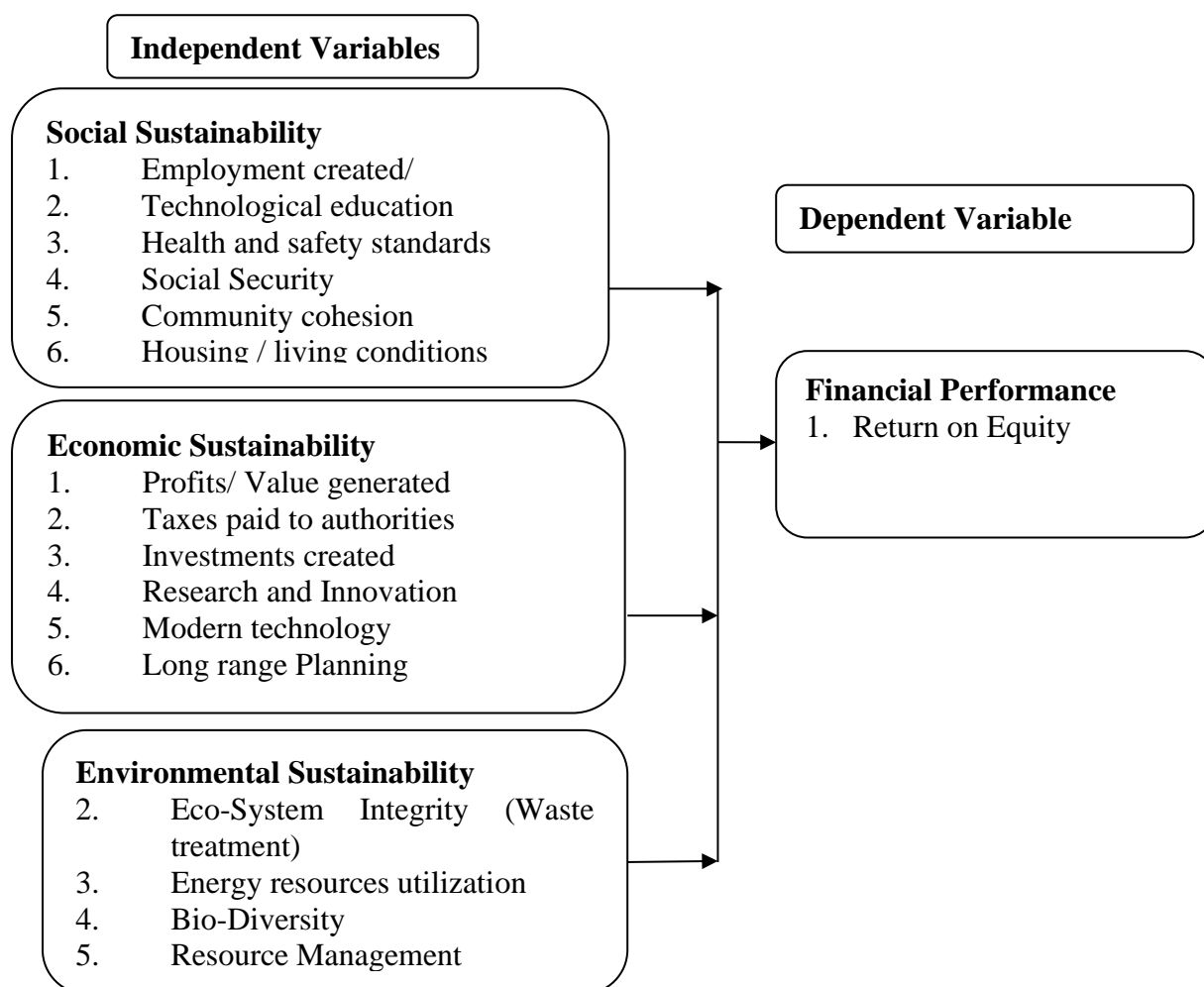
### **Environmental Sustainability and Financial Performance**

Jayeola (2015) investigated on how the practice of environmental sustainability affects the performance outcomes among SMEs. The study's objective was to assess how environmental

sustainability relates with the performance outcomes in SMEs in terms of developing revenue and profits. The sample covered 332 firms in two countries: Netherlands and China. Results suggested that environmental sustainability positively and significantly relates with the performance. In recommendations, it was noted that firms who tend to communicate to their employees regarding their sustainability efforts perform better in terms of developing profits. Organizations must show that they are meeting public expectations and acquiring corporate credibility in order to acquire the support they need to carry out their operations. Companies may benefit from social and environmental sustainability in managing public pressures and building and preserving credibility. Knowledge asymmetries are reduced and openness is increased as a result of sustainability performance allowing investors to better evaluate and compare businesses based on the risks and opportunities.

Omuom (2020) did a research in the promotion of SRI practices in adoption of green marketing models among manufacturing firms in Kenya. The study was to establish how green marketing can help in promoting the sustainability of an enterprise. The target population included 80 respondents. The analyzed data revealed that competitive advantage, environmental protection regulation, cost efficiency and consumer behavior were key factors in the adoption of the green marketing model. The Company needs to broaden their marketing activities to help them in covering all other production lines besides manufacturing. Companies are able to improve their performance by signaling their dedication to achieving environmentally sustainable goals. By observing SRI, it is believed that the highest quality sustainability improves corporate reputations. Companies could be able to improve their public and social profile by focusing on environmental sustainability. By signaling a social and environmental obligation to customers, sustainability will help businesses improve their market position and even attain strong competitive advantages.

## Conceptual Framework



The corporate sustainability practices cover the social sustainability, economic sustainability and environmental sustainability aspects and indicators on each and the linkage they have on financial performance. On social sustainability aspects like empowerment of the human capital, equally sharing opportunities and wholesome development of the society and local communities will be the indicators of the variable. The economic sustainability will be a measure of long-range planning as either strategic plan for the organization that covers more than three years. It will also look into research and innovation and use of modern technology that allow the firms to gain new information and skills and smart growth and development agenda that make firms successful. Environmental sustainability will consider sound resource management, bio-diversity and eco-system integrity that protect and preserve natural resources in the world. Financial performance will be a measure of ROA and ROE for NSE firms.

## RESEARCH METHODOLOGY

This study applied a descriptive design where the respondents were required to provide more information on different aspects of the instrument without altering the situation. The target population for the study was 56 NSE listed firms. The unit of observations was finance

managers because most of sustainability parameters are measured in financial terms. The study therefore targeted 56 finance managers. The population of 56 finance managers was small and easily accessible hence the decision to include all of them in the study hence a census. This was in line with the approval of Ratcliffe, Burd, Holder and Fields (2016) who argued that for small populations falling below 200, the ideal scenario is including all of them in the study. Primary and secondary data were applied in coming up with the answers to research objectives in this study. A questionnaire made up structured and open ended questions was drafted and used in collection of data. The questionnaire contained different sections designed to capture data on different aspects of the objectives. A data collection tool was designed for secondary data. Data gotten from the field was examined for completeness before being captures in data analysis software. Open ended questions were analyzed through content analysis whereas structured questions were analyzed through descriptive statistics that included: frequencies, means, standard deviation and percentages. The study further used Pearson Moment of Correlation and multiple regression analysis to determine the degree of association between the variables.

## **DATA ANALYSIS**

From the 56 questionnaires administered, 43 were dully filled and returned representing 76.8% return rate which was adequate for analysis and presentation of the findings (Babbie, 2010).

### **Descriptive Statistics and Trend Analysis**

Descriptive statistics comprising means, standard deviations for performance was represented by ROE.

### **Social Sustainability**

Table 1 is the descriptive finding on social sustainability

**Table 1: Social Sustainability:**

	<b>Mean</b>	<b>Std. Dev</b>
The firm designed a healthy working environment for all its staff	3.67	0.747
There are measures that ensure equal opportunities to all staff	3.88	0.586
The firm engages in CSR for community growth and development	3.51	0.768
Employees are empowered through training and educational programs	3.72	0.734
The firm encourages inclusivity of all persons	3.77	0.718
The firm promotes the well-being of its staff	3.72	0.826
<b>Average</b>	<b>3.71</b>	<b>0.730</b>

**Source: Field Data (2022)**

The value of average in Table 1 is (M=3.71), this implies that the studied firms practiced social sustainability. The highly practiced aspect of social sustainability was putting in place

measures that ensured equal opportunities to all staff (M=3.88). This means that social sustainability allowed the studied firms to ensure there were equal opportunities for employees. On the other, the least practiced aspect of social sustainability was engaging in CSR for community growth and development (M=3.51). This is consistent with Phan et al., (2020) who commented that corporate sustainability continues to influence implementation of strategic decisions in businesses through the practices set up in internal processes. Companies seek to incorporate SRI in their operations so ensure that the diverse needs of different stakeholders are met. This has been encouraged to help preserve the utility for future generations as the current generation continues to derive optimal utility from the environment.

### **Economic Sustainability**

Table 2 details what was established from the data collected on economic sustainability

**Table 2: Economic Sustainability**

	<b>Mean</b>	<b>Std. Dev</b>
The firm has developed long-term strategic plans for its economic growth	3.69	0.985
The economic growth of the firm spreads to the local communities around it	3.63	1.024
The firm has adopted to use of new technologies to increase work efficiencies	3.72	0.701
The use of modern technologies is to cut operational costs	3.86	0.560
The firm growth is an aspect of proper planning	3.81	0.795
The firm continuous invests in research and development programs	3.77	0.782
The strategic team comes up with annual smart agenda for growth and development	3.74	0.693
<b>Average</b>	<b>3.75</b>	<b>0.791</b>

*Source: Field Data (2022)*

The value of average in Table 2 is given as (M=3.75), which implies that the studied listed firms did practice economic sustainability. The most practiced aspect of economic sustainability in the studied firms was the use of modern technologies is to cut operational costs (M=3.86) and proper planning (M=3.81). Findings imply that firms had invested in state of art technologies that supported operational processes. However, the least practiced aspect of economic sustainability was the fact that the economic growth of the firm spread to the local communities around it (M=3.63). This finding is in line with Sy (2016) who revealed that the practices of sustainability significantly impacted the firms' overall performance. Organizations are constantly under pressure from a number of stakeholders in concentrating on sustainability and keeping themselves accountable for their multiple bottom line approach of operations (MBL), which includes economic, financial, governance, social, and ethical activities. Businesses that have been found to be sustainable for prolonged periods attribute their success to alignment of their strategies to environmental conservation to achieve a holistic growth that leads to improved firm performance.

### Environmental Sustainability

Table 3 gives results on environmental sustainability

**Table 3: Environmental Sustainability**

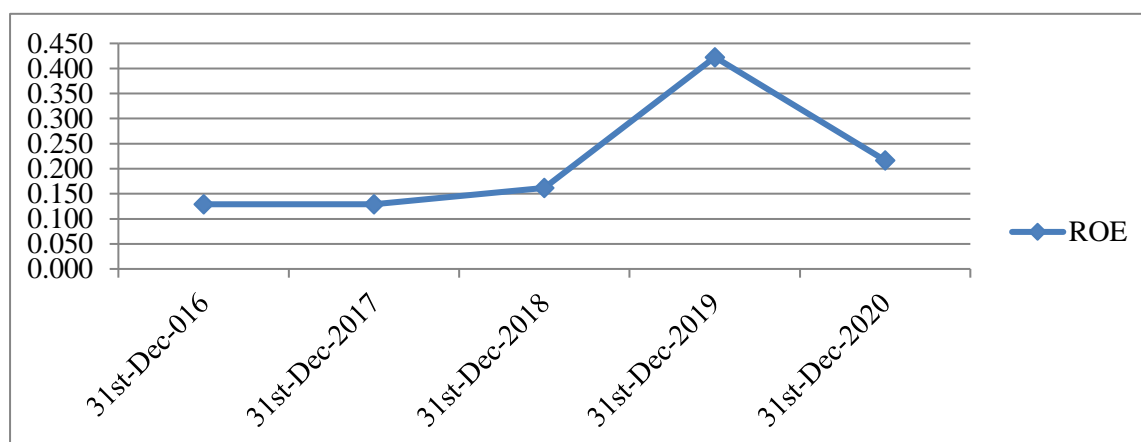
	Mean	Std. Dev
The firm has installed measures to protect the environment	3.63	1.001
Managers encourage adoption of recycling strategies	3.56	0.765
The firm has put measures for proper resource management	3.74	0.727
All staff are encouraged to stop the degradation of the environment	3.88	0.731
Renewable energy sources like solar is used in the organization	3.53	0.909
There are measures to protect the natural eco-systems	3.98	0.636
The firm has adopted to bio-diversity measures	3.70	0.708
<b>Average</b>	<b>3.72</b>	<b>0.782</b>

Source: Field Data (2022)

From Table 3, the value of average is given as (M=3.72), this implies that the studied firms had adopted environmental sustainability. In fact, the highly adopted aspect of environmental sustainability was putting in place the measures to protect the natural eco-systems (M=3.98) and encouraging staff to stop the degradation of the environment (M=3.88). On the other hand, the least practiced aspect of environmental sustainability was the adoption of renewable energy sources like solar (M=3.53). These findings are echoed by Alshehhi, Nobanee and Khare (2018) who noted that environmental sustainability has developed itself as a key tool for businesses in meeting increasing accountability demands.

### Financial Performance

The study gathered secondary data on total equity and net income that were used to compute ROE. Figure 1 gives the trend analysis of this ROE among the listed firms over the period 2016-2020.



**Figure 1: Financial Performance**

Source: Field Data (2022)



From Figure 1 shows that on overall, there was instability in ROE reported by the listed manufacturing firms in Kenya. The year 2019 was characterized by a drop in ROE with a further drop in 2020. This drop in ROE between 2019 and 2020 could be attributed to the COVID-19 pandemic that adversely affected returns generated by these firms.

### **Inferential Statistics**

This section is set out to detail the findings of correlation analysis and regression to link corporate sustainability and financial performance.

### **Multicollinearity Test**

VIF values were generated and appropriately interpreted to determine presence of multicollinearity in the data as presented in Table 4.

**Table 4: Multicollinearity Test**

	<b>Co linearity Statistics</b>	
	<b>Tolerance</b>	<b>VIF</b>
Social Sustainability	.983	1.017
Economic Sustainability	.952	1.050
Environmental Sustainability	.937	1.068
<b>Mean</b>	<b>.957</b>	<b>1.045</b>

**Source: Field Data (2022)**

Table 5 gives the mean VIF as 1.045 with the values of the respective variables being 1.017, 1.050 and 1.068 respectively. Multicollinearity was absent as the VIF values were below 10.

### **Heteroscedasticity Test**

The study used the Breusch–Pagan test which checks whether variance level of the errors derived from a regression is a function of the values of the independent variables or not. If one can use the errors in regression to estimate dependent variable given independent variables, then, heteroskedasticity was deemed present. Table 6 reports the findings.

**Table 5: Breusch–Pagan test**

<b>Test: Va r(u)</b>	<b>Statistic</b>
Chibar2	253.34
p-value	.6771

**Source: Field Data (2022)**

Table 5 shows the resultant p-value ( $p > 0.05$ ), thus the absence of Heteroscedasticity in the data is assumed.

### **Normality Test**

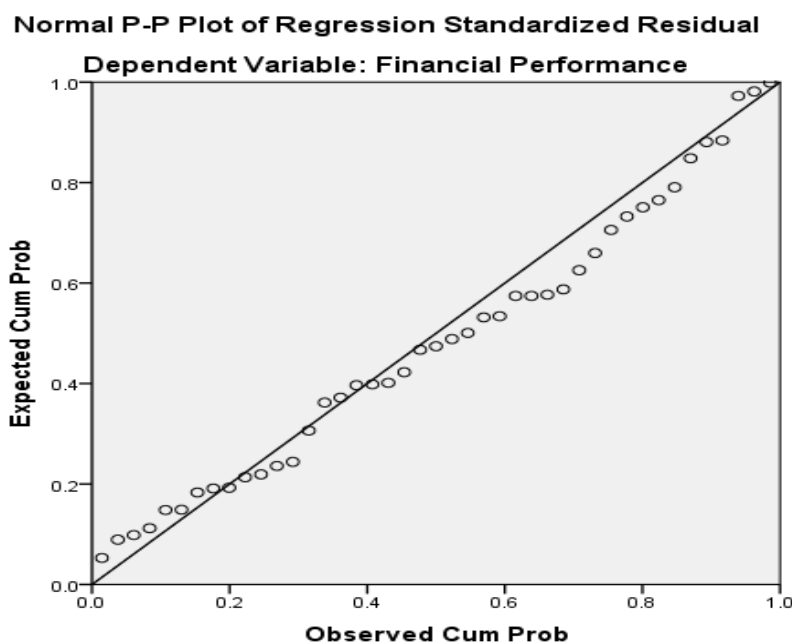
Normality was inspected graphically using the Normal PP plot in Figure 4.2 as well as through Shapiro-Wilk as shown in Table 6.

**Table 6: Normality Test**

	Shapiro-Wilk		
	Statistic	df	Sig.
Financial performance	.931	5	.605
Social Sustainability	.828	5	.135
Economic Sustainability	.866	6	.212
Environmental Sustainability	.863	6	.201

Source: Field Data (2022)

The results in Table 6 indicate the p-values across all the variable as  $p > 0.05$ . This is an indication of presence of normality assumption in the data which is desirable for running regression analysis. This finding is corroborated by Schwab (2013), whenever the p-values from Shapiro-Wilk is greater than 0.05, then the presence of normality in the data is assumed. The results in Table 4.7 are further illustrated in Figure 2.



**Figure 2: Normal PP Plot**  
 Source: Field Data (2022)

From Figure 2, majority of the data points are observed to be falling along the normal PP line. Data was normally distributed. As shared by Jones (2022), when using normal PP to test for normality, the distribution of most of the data points along the normal PP line is a clear indication of assuming the presence of normality in the data,

### **Autocorrelation Test**

Durbin Watson Statistic was applied in testing autocorrelation

**Table 7: Autocorrelation Test**

Model	Durbin-Watson
1	1.885

Source: Field Data (2022)

From the results in Table 7, the value of Durbin Watson statistic is given as 1.885, which is roughly taken as 2 after rounding it off to a whole number. This finding is consistent with Sekaran and Bougie (2016) who said that value of 2 and above is an indication of lack of serial correlation.

### Correlation Analysis

Table 8 is the summary of the correlation matrix.

**Table 8: Correlation Matrix**

		ROE	Social Sustainability	Economic Sustainability	Environmental Sustainability
Financial Performance	Pearson Correlation	1			
Social Sustainability	Pearson Correlation	.342	1		
Economic Sustainability	Pearson Correlation	.780	.473	1	
Environmental Sustainability	Pearson Correlation	.332	.483	.254	1

Source: Field Data (2022)

From Table 8, the study noted that while economic sustainability ( $r=.780$ ) has a strong and positive correlation with performance, social sustainability ( $r=.342$ ) and environmental sustainability ( $r=.332$ ) both have a moderate relationship. Jayeola (2015) suggested that environmental sustainability positively and significantly relates with the performance of the firm. It then follows that corporate sustainability practices have a positive relationship with financial performance of the listed firms in Kenya. Dembo (2017) shared that adherence to SRI has the potential to result in superior performance in the long term as stock shares rise and returns improve.

Diagnostic tests were run to ascertain the appropriateness of data for inferential statistics.

### Regression Results

Table 9 presents the model summary.

**Table 9: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.799 <sup>a</sup>	.638	.610	.02239

Source: Field Data (2022)

Table 9 shows that 63.8% change in performance of listed firms in Kenya is explained by corporate sustainability practices. Phan et al., (2020) observed that corporate sustainability is key because of its role in influencing strategy implementation through institutionalizing of appropriate practices that ensure interest of different stakeholders are met while preserving the interests of future populations or stakeholders.

Table 10 is a summary of the ANOVA.

**Table 10: ANOVA**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	.034	3	.011	22.934	.000 <sup>b</sup>
Residual	.020	39	.001		
<b>Total</b>	<b>.054</b>	<b>42</b>			

Source: Field Data (2022)

From Table 10, the value of F calculated is 22.934 with  $p < 0.05$ . Implying that overall model was significant.

Table 11 gives the beta coefficients

**Table 11: Beta Coefficients and Significance**

	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	.172	.046		3.721	.001
Social Sustainability	.302	.072	.125	4.194	.030
Economic Sustainability	.112	.042	.791	2.667	.000
Environmental Sustainability	.202	.051	.192	3.961	.020

Source: Field Data (2022)

From Table 11, the study noted that social sustainability ( $\beta = .302$ ,  $p < 0.05$ ) had significant effect on financial performance. The beta coefficient is positive, implying that social sustainability directly contributes towards financial performance of the firm. This is also consistent with the earlier findings on correlation results where it was shown that social sustainability was a positive correlate of financial performance. These assertions are consistent with Uwuigbe et al., (2018) who revealed that sustainability reporting significantly and positively influenced the generation of revenue. The results is further supported by Phan et al., (2020) who investigated on how the practices of sustainable development relates with financial performance using a case study of the Textile Firms in Vietnam. The findings of the study revealed that the practices of sustainable development had a positive effect on the financial performance. It emerged that corporate sustainability is key because of its role in influencing strategy implementation through institutionalizing of appropriate practices that ensure interest of different stakeholders are met while preserving the interests of future populations or stakeholders. The result further concurs with Alshehhi, Nobanee and Khare (2018) who shared that. Companies will have stronger competitive positions and market

advantages as a result of SRI engagement that promotes accountability for sustainable actions. The study was premised voluntarily sharing information about the fiscal, environmental, and social effects of firms operations where the practices are bound by law unlike in Kenyan context where they are not. On the contrary, the findings contradict with Wasara and Ganda (2019) who researched on how the disclosure of corporate sustainability relates with the performance of JSE listed companies within the Mining industry. Environmental disclosures were found to have negative effects of return on investment.

The study established that economic sustainability ( $\beta=.112$ ,  $p<0.05$ ) had significant effect on financial performance. The beta coefficient in the finding was positive; this means that economic sustainability has a positive contribution to financial performance. This is also similar to the correlation results where a positive relation was registered between economic sustainability and financial performance. The result agrees with Alshehhi, Nobanee and Khare (2018) and shared that. Investors will be able to make more accurate valuations and better allocate their funds to businesses that have a positive effect as a result of the increased transparency. Similarly, Girón et al., (2020) investigated on sustainability reporting and economic performance of the firm using a case study of Asia and Africa and argued that sustainability entails ensuring that stakeholders' interests are met without compromising the ability of future stakeholders' interests. Hussain (2015) noted that economic performance data is irrelevant, while the effect of environmental and social aspects of sustainability is important and meaningful across various FP steps. There is no evidence that there is a connection between SP and ownership structure. Sy (2016) assessed on how the practices of sustainability affects the performance of a firm. The study's objective was to investigate the effects of sustainability initiatives on firm's performance. The findings of the study revealed that the practices of sustainability significantly impacted the firms' overall performance. Organizations are constantly under pressure from a number of stakeholders in concentrating on sustainability and keeping themselves accountable for their multiple bottom line approach of operations (MBL), which includes economic, financial, governance, social, and ethical activities. Dembo (2017) noted that sustainability practices affect the performance. The practices of sustainability positively relates with corporate performance. Organizations are developing sustainability policies, but they stress that these policies are meant to promote an underlying "culture of sustainability" by stressing the value of environmental, social, and financial performance. These policies are aimed at developing a cultural sustainability through the articulation of values and beliefs that underpin the objectives of an organization.

It was shown that environmental sustainability ( $\beta=.202$ ,  $p<0.05$ ) had significant effect on financial performance. The implication of the positive beta coefficient is that environmental sustainability is a positive predictor of financial performance. The result contradicts the study by Gatimbu, et al., (2018) noted that environmental efficiency negatively related with profitability. Companies are developing more sustainable business models and innovative financial strategies for increasing the overall performance and attaining a competitive advantage. However, the result is consistent with Jayeola (2015) who investigated on how the practice of environmental sustainability affects performance among SMEs and established

that environmental sustainability positively and significantly relates with the performance of the firm. The study further suggested that firms who tend to communicate to their employees regarding their sustainability efforts perform better in terms of developing profits. Companies may benefit from social and environmental sustainability in managing public pressures and building and preserving credibility. Omuom (2020) noted that competitive advantage, environmental protection regulation, cost efficiency and consumer behavior were key factors in the adoption of the green marketing model.

## **CONCLUSION AND RECOMMENDATIONS**

### **Conclusions**

Social sustainability has a moderate relationship. Social sustainability had significant effect on performance. The studied firms practiced social sustainability. The highly practiced aspect of social sustainability was putting in place measures that ensured equal opportunities to all staff. The least practiced aspect of social sustainability was engaging in CSR for community growth and development.

Economic sustainability has a strong and positive correlation with financial performance of listed firms in Kenya. Economic sustainability had significant effect on financial performance. The studied listed firms did practice economic sustainability. The most practiced aspect of economic sustainability in the studied firms was the use of modern technologies is to cut operational costs and proper planning. However, the least practiced aspect of economic sustainability was the fact that the economic growth of the firm spread to the local communities around it.

Environmental sustainability had a moderate relationship. Environmental sustainability had significant effect on financial performance. The studied firms had adopted environmental sustainability. In fact, the highly adopted aspect of environmental sustainability was putting in place the measures to protect the natural eco-systems and encouraging staff to stop the degradation of the environment. On the other hand, the least practiced aspect of environmental sustainability was the adoption of renewable energy sources like solar.

### **Recommendations**

The contribution of this study to the body of knowledge is three-fold; the extent of adoption of corporate sustainability practices, their relationship as well as effect on performance. In terms of adoption, this study has contributed towards an understanding the listed firms in Kenya have widely embraced economic sustainability as compared to environmental and social sustainability dimensions. One possible explanation for this is that profit maximization outweighs the environment and social consciousness. By generating more profits, the listed firms stand to have effectively maximized the wealth of the shareholders.



In terms of relationship, the study has contributed towards understanding that corporate sustainability practices are positive correlates of financial performance of the listed firms, More specifically, economic sustainability dimension was the strongest and positive correlate of financial performance. This means that placing more emphasis on profits can improve financial performance of the listed firms. Based on the effect, the study has contributed to the understanding that in as much as economic sustainability has been widely adopted among listed firms; its effect on financial performance is relatively low as compared to the social and environmental sustainability.

Regression results showed that social sustainability had a positive beta coefficient that was significant. The least practiced aspect of social sustainability was engaging in CSR for community growth and development. Thus, the study recommends that stakeholder engagement managers and the public relation managers should invest more resources in CSR activities to the community.

Economic sustainability had a positive beta coefficient that was significant. Hence, this study recommends that ICT managers of the respective listed firms should carry out regular maintenance of the existing technologies to be utilized in cutting down costs of operation. From regression analysis, environmental sustainability had a positive beta that was significant. Furthermore, the least practiced aspect of environmental sustainability was the adoption of renewable energy sources like solar. Hence, this study recommends that senior management team of the listed firms in Kenya should adopt solar technologies to safeguard the environment.

The policy makers working in the listed firms in Kenya should review the guidelines and policies that guide corporate sustainability practices so as to enhance their financial performance. These policy makers should align the corporate sustainability practices with the strategic goals of the listed firms. There is need for policy makers at the Capital Market Authority (CMA) to develop relevant policies compelling all the listed firms to strongly comply with corporate sustainability practices. The policy makers at CMA should review the corporate sustainability frameworks of all the listed firms to ensure there is strict compliance.

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