

Green Financial Investments And Growth Of Companies In The Capital Markets In Kenya

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Abstract:

Background: Growth of companies is critical in stimulating economic growth, development, and wealth creation. Company growth is pivotal in enhancing and improving companies' prospects as it signals greater performance of a firm's products essentially leading to customer preference of a company's services. However, companies particularly those in the capital markets are not experiencing desirous growth. Thus, the quest for growth has led firms to align to Environmental, Social and Governance (ESG) standards by adopting dynamic, resilient and sustainable emerging business strategies. As investors and other stakeholders increasingly prioritize sustainability, this has compelled companies to prioritize environmentally responsible investments in order to be better positioned for long-term success. The study aimed to examine influence of Green financial investments and growth of companies in the capital markets in Kenya. The study was underpinned on the Information signalling theory.

Material and Methods: Descriptive research including frequency, mean, standard deviation and inferential statistics including Pearson Moment Correlation were applied in the study. Census survey was undertaken for the 48 listed companies targeted that formed the total population. Hypothesis testing conducted on the null hypothesis H_0 : Green Financial investments do not influence growth of companies in the capital markets in Kenya. In this study, primary data was collected from the listed companies. A self-administered semi-structured questionnaire was used. The research instrument was tested for reliability. Further, a multiple regression model was used to study the relationship between green financial investments and the growth of companies within the context of Kenya's capital markets.

Result: The study found that Green Financial Investments had significant influence on Growth of companies. Further, multiple regression analysis results showed that green financial investments have positive significant impact on growth of companies in the capital markets in Kenya.

Conclusion: The study recommends for broader multi-agency consultations across sectors to harmonise positions and come up with identified green standards including crafting defined taxonomies on eligible green products. Uptake of green products including climate finance need to be enhanced significantly as this is not only paramount in ameliorating climate change but also essential in enhancing growth of companies. The green financial investments are therefore an imperative in business operability and need to be entrenched in companies' operations.

Key words: Green Financial investments, Green Finance, Environmental, Social & Governance, Growth of Companies, Capital Markets

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I. Introduction

Growth of companies is an important barometer in determining firm performance as it characterizes appropriate motivation, expansion opportunities and financial resources availability necessary in attracting additional investors (Frešer *et al.*, (2020). It is important to note that institutional investors evaluate companies' performance based on ESG tenets, as these factors are regarded as fundamental in assessing companies' ability to create long-term value effectively making them better investment choices, in turn impacting company growth (Hoffman, 2018). With investors increasingly demonstrating a desire to align to ESG-centric businesses, firms are on the race to achieve higher sustainable practices including integrating green investments and products (Hoffman, 2018). Green financial investments entail channelling of capital flows towards projects, with clear and well-defined strategies on social or environmental benefits (Migliorelli, 2021). The key instruments that enable firms to raise funds for the projects that support sustainable finance encompass the ESG underpinnings. Green Financial Investments such as climate finance, green energy and green bonds are critical catalysts in ensuring that business

objectives are executed in an environmentally responsible manner noting the growing global calls for companies to work towards achieving net-zero carbon emissions augmenting the need for more sustainable, low carbon pathway-forward (Migliorelli & Dessertine, 2019).

The 2021 Glasgow CoP26 Climate Change Summit and the 2022 Egypt Climate Change Conference noted the need for countries to deliver on identified targets such as investment in renewables and phase-out of coal with a broader focus of ameliorating climate change and safeguarding the planet. With the firm global focus towards sustainable finance initiatives, green financial investments are undoubtedly becoming essential aspects for consideration by companies while undertaking business operations. The 2016 “*Marrakech Pledge*” aims to provide solutions around the need to create sustainable financing, especially in the context of implementing green capital markets (Toronto Centre & Autorité Marocaine du Marché des Capitaux, 2019). In the Pledge, capital markets at the continental level are anticipated to play a transformational role in enabling climate-resilient and green investments through implementing sustainable finance instruments and practices. World over, Stock exchanges are playing a significant but niche role in moving the sustainable finance agenda forward. This is being fuelled through requiring disclosures, defining ESG related risks as financial risks, promoting transparency, driving good practice requirements, and exploring new product areas touching on ESG among others.

Global Perspective of Green Financial Investments of Companies in the Capital Markets

With an overall global size of USD 178 trillion, the capital markets are marked as one of the most powerful drivers of wealth creation and economic growth and indeed credible source of sustainable long-term financing (World Bank, 2020). IOSCO (2020) report highlighted that investment instruments designed or labelled as sustainable had reached considerable volumes ranging between 30 trillion to approximately 80 trillion US dollars as at 2018. Specifically, global green bond (a measure of sustainable finance) issuances totaled USD 270 billion in 2020, an increase from the initial USD 258 billion and USD 171 billion in 2019 and 2018 respectively, buttressing the bold global emphasis on sustainable finance to accelerate green growth. The green bond issuance has gone beyond USD 290 billion in 2021 (Boutabba & Rannou, 2022).

Further, a survey conducted by WFE in 2020 revealed the increased significance of embedding sustainability into financial decision-making. Approximately 90% of the 61 exchanges who participated in the survey perceived investor demand for disclosure of ESG actions in helping inform investment decisions. From a global standpoint, whereas there has been significant concerted effort to push for integration of ESG improvements in the finance sphere, there has not been a proportionate quantitative increase in sustainable finance sources (Migliorelli & Dessertine, 2019). Schoenmaker and Schramade (2019) assert the need for companies to incorporate sustainability prospects into mainstream finance in order to ensure paralleled financial performance is undertaken in an environmentally responsible, transparent and accountable manner. In the securities sector globally, the Sustainable Stock Exchanges (SSE) initiative was established by the UN in 2009 to build capacity of the stock exchanges and capital market regulators in order to promote responsible investment, sustainable development and upscaling of ESG issues.

In the UK, there has been adoption of sustainable finance strategies, where the UK government introduced measures that enhance proper integration of sustainable investment practices. The UK became the pioneer and first major economy that committed in law to net zero greenhouse gas emission by the year 2050, and a cut on emissions by 78 percent by 2035 (HM Government, 2021). The UK amended laws such as Companies Act 2006 to make it mandatory for companies to disclose ESG matters in their strategic or director’s reports (Macneil & Esser, 2019). Provided the need to reducing carbon emission and to zero greenhouse gases, the market for ESG investments has grown dramatically, with the demand for sustainable products reaching a high of 70 percent of the populace who consider ESG investment strategies (HM Government, 2021). In addition, the UK adopted the Green Finance Taskforce in 2017, with the purpose of accelerating the growth of green finance for companies in the UK (Treasury, 2020). Some of the green financial products that have been delivered into the UK’s capital markets include green loans and green bonds (Jones & Comfort, 2020). Moreover, 49 percent of the £9.4 trillion in UK assets integrated the ESG spectrum in their respective investment processes by 2020, which was a 37 percent rise from 2019 (HM Government, 2021).

In the US, there are various voluntary strategies that have been put in place by private companies to embrace and enhance the ESG adoption and growth. Similarly, Matos (2020) reports that the regulatory environment for the ESG reporting by the companies in the US is on voluntary basis. However, Christensen, Hail and Leuz (2019) acknowledged the challenges that engulf substantial variation in the sustainability disclosures, where lack of standard-reporting process for the companies makes the mandatory ESG or CSR and sustainability disclosures difficult. Even though the US faces the challenge of the mandatory regulations for the adoption or disclosure of the ESG by the companies, there has been a significant growth in the adoption of various tenets of the ESG. For instance, a report by Deloitte indicates that majority of consumers in the US cite ESG considerations as the important factors that impact on their willingness to invest with a company. The ESG initiatives in the US have been based on the principles-based approach that oversee the disclosure of non-financial information by the

publicly listed companies (Boffo & Patalano, 2020). For example, the US Securities and Exchange Commission (SEC) continuously engage in the consideration of the ESG investments through strategies such as: (1) the review of the ESG disclosures; and (2) naming of the funds with ESG investment mandates (Boffo & Patalano, 2020).

Importantly, the current level of investments linked to ESG stands at over 20 percent of all the assets that are professionally managed, which translates to over USD 17 trillion (Boffo & Patalano, 2020). Moreover, by 2021, the ESG investment fund grew to over USD 1 trillion, while the growing development of the products linked to ESG have also exceeded USD 1 trillion in assets under the management. Moreover, the market penetration and attributes of the ESG products reached the all-time-high of about 20 percent of the public companies. In terms of the market capitalization of the ESG scoring companies in the world, the US is the leading country with 95 percent compared to the EU with 89 percent (Boffo & Patalano, 2020). Other milestones in the ESG initiatives in the US include the first issuance of the first green bonds in 2010 by the International Finance Corporation (IFC) in 2010, followed by the market's first global US dollar benchmark-sized green bonds in 2013 worth USD 1 billion (Monk & Perkins, 2020).

Japan is fast rising as the market for responsible investment according to a report by Milburn (2019), a milestone that was achieved in 2015 with the publishing and signing of the Principles for Responsible Investment. In addition, Japan planned and allocated \$26.7bn into shares that had strong ESG features, grouped into three indices as MSCI Japan Empowering Women Index, the FTSE Blossom Japan Index and the MSCI Japan Select Leaders (Milburn, 2019). The response by medium to large enterprises towards the incorporation of ESG into their investment strategies has been immense. Other remarkable milestones in the adoption of ESG in the capital markets in Japan include the government-sponsored green bond, which was issued in 2014, as well as the establishment of Green Bond Principles by the International Capital Market Association (Boffo & Patalano, 2020).

In Turkey, the report by IFC (Ararat *et al.*, 2011) indicates that sustainable investments and ESG in the capital markets and portfolios management processes have realized a steady growth in adoption and practice. According to Ararat *et al.*, (2011), the estimates of sustainable investments as of November 2010 showed that Portfolio investments of the UN PRI signatories reached about USD 87 million. In addition, banks in the country remained the main source of ESG (IFC, 2016). In terms of the green bonds, the IFC invested USD 50 million in the country, with the Industrial Development Bank of Turkey becoming the first privately owned institution becoming the beneficiary. The issuance of the green bond and other initiatives by the IFC contributed to the recognition of Turkey as the third-largest country in terms of the ESG exposure for IFC across the world. However, there is still need for the growth and support for ESG in Turkey, especially with the issuance of the green bonds.

In South Africa, green bonds are important tools that offer the issuers sustainable business opportunities and to monetize a diversified investor demand (SBN, 2018). In as much as the sustainable finance in South Africa relying on predominantly voluntary investment initiatives, these initiatives are as result of the combination of the locally demanded and developed standards, as well as adherence to the international standards. The National Treasury, Republic of South Africa (2021) provided a technical paper which provided the scope of sustainable finance in the country, indicating that the emerging global trend and practice have influenced the adoption of sustainable finance in the economy. The main aspects of sustainable finance that were considered in the country include sustainable development, green bonds, green economy, green finance, impact investment, responsible insurance, and responsible investment (The National Treasury, 2021). Green bonds have so far been issued in South Africa, where the City of Johannesburg Municipality and the Industrial Development Corporation issued the first green bonds to finance initiatives to support clean energy infrastructure. Moreover, the banking sectors' adoption of sustainability in their businesses has been mainly driven by the concern of risk management, and the need to factor in the ESG tenets in their business operations (The National Treasury, 2021).

In Seychelles, Toronto Centre and Autorité Marocaine du Marché des Capitaux (2019) reported that the country's sovereign blue bond product raised USD15 million in inflows from the global investors. This demonstrated the potential that companies in the capital markets have in attracting and retaining international investors, especially using sustainable finance products. Similarly, Marbuah (2020) reported that the country became the first state in Africa to issue the sovereign blue bond in October 2018. The country is also positioned as the economy with unique qualities to issue and sustain the sustainable bonds, especially with the classification of the blue bonds by the Climate Bonds Initiative as green bond (Marbuah, 2020, 2021). This demonstrated the potential that companies in the capital markets have in attracting and retaining international investors, especially using sustainable finance strategies such as the green bonds.

Morocco is one of the leading players in the emergence of sustainable finance in Africa and its capital market has fully embraced the development and issuance of green bonds and green instruments that are aligned to sustainable development (Marbuah, 2020; Schneeweiß, 2019). The goal to embrace sustainable finance in Morocco is skewed towards the national sustainable development strategy, where the country focuses on renewable sources of energy generation by up to 50% by the year 2030. Notably, the Moroccan Capital Market Authority has taken a lead role in the development and introduction of green guidelines to facilitate issuance of

green bonds in the country's capital market (Marbuah, 2020). Moreover, through the *Marrakech Pledge*, Morocco has reportedly championed the continental initiative towards building sustainable partnerships, useful in scaling-up sustainable finance practices in the continent.

Problem of the Study

Company growth is fundamental in enhancing and improving companies' prospects as it signifies greater performance of a firm's products essentially leading to customer preference of a company's services. However, companies particularly those in the capital markets are not experiencing desirous growth (Baret *et al.*, 2020). CMA (2021) posits the slowed expansion of Kenya's capital markets with some listed companies reporting financial losses. In 2019/2020 FY, end of Q1 2020, market capitalization recorded a 20.63% decrease to KShs.2,016.06 B from Kshs. 2,539.98B in quarter four 2019. In quarter three 2021, market capitalization subsided from Kshs. 2,778.65B from previous Kshs. 2,592.92B in quarter two (CMA, 2021). Additionally, In the financial year 2022/23 the end of third quarter market capitalization recorded an 11.57% decline to Kshs. 1,756.26B in Q1.2023 as compared to KShs.1,986.08 billion recorded in Q4.2022. Accordingly, there is need to cement a company's systems, underpinnings, and frameworks to ensure that there are more watertight and fit-for-future, to be able to support business resiliency turnaround strategies. Companies have made steps towards integrating growth focussed approaches in business to better performance. All the stakeholders have a role to play in contributing to the creation of low-carbon economies, financing long-term growth of the firms in a sustainable manner, and re-orienting their investments towards achieving sustainable practices. The recent addition of the broad ESG spectrum as part of mainstream finance, makes this study necessary more especially, to finance scholars considering that ESG had in the past been perceived as being 'non-financial' (Schoenmaker, 2017). Until recently, market participants perceived sustainability issues as being "non-financial" hence the minimal integration of sustainable aspects into financial decision-making in the past, especially while considering company's growth decisions. In recent years however, ESG has emerged as a key area of focus as investors demonstrate an increased desire to invest in companies that align to global sustainable practices and values. Given the limited empirical evidence and information around green financial investments the study also contributes to new knowledge and further highlights key areas of further research and analysis, especially noting that studies in the context of the capital markets are relatively few leading to a study gap. Overall, companies are moving towards ESG as investors remain highly conscious of the companies' sustainable values and environmental footprints.

Objective of the Study

To examine the influence of green financial investments and growth of companies in the capital markets in Kenya

Research Hypothesis

H₀: Green Financial investments do not influence growth of companies in the capital markets in Kenya.

Significance of the Study

The study is useful to issuers in improving their ESG disclosure and reporting technique through showcasing possible areas for improvement, based on reviews, benchmarks and survey feedback. To enable better implementation, monitoring, and standardized reporting by companies on the Nairobi Securities Exchange (NSE) ESG 2021 guidelines, the study further explores modalities for effective ESG management responsibility through recommending adoption of technical ESG committees at board-level. With the increasing global push for companies to deepen their ESG spectrum, this study will trigger adoption of customized country specific standards based on insights and perspectives borrowed from the global sphere. Going forward, regulators should seek to increase their understanding of climate risk and develop supervisory capabilities to be able to accurately evaluate the financial system's actions to achieve climate-resilience.

II. Literature Review

Information Signalling Theory

Posited by Stephen Ross in 1977, the information signaling theory presupposes that if stock markets are efficient then the management could use the dividend policy to signal some important information to investors. The theory is primarily concerned with reducing information asymmetry mainly between two parties; the organization and investors, and the use of such information to initiate trading positions (Connelly *et al.*, 2011). The signaling theory postulates a positive relationship, whereby firms signal their quality through the optimal combination of leverage and dividends. Thus, proponents of signaling theory argue that better corporates tend to be highly leveraged and pay relatively higher dividends compared to the lower quality corporates (Zhao *et al.*, 2004). Notably, companies that pay higher dividends are perceived to be profitable and high growth companies by investors. Thus, with the investors' increasingly demonstrating a desire to invest in companies that practice sustainable values, many investors are likely to channel their investments to sustainable finance led companies in-

turn impacting the company's profitability leading to greater dividend payments, signaling positive future-prospects to investors.

Connelly *et al.*, (2011) provides the implications of signaling theory in sustainable market research, where the authors state that companies use costly signals to communicate their underlying intention of quality to investors. The implication of the signaling theory in that respect is that investors and consumers find it difficult to know the firms that are genuinely committed to sustainable business practices. Thus, in order to reduce information asymmetry, the firms use costly sustainability strategies to overcome the challenge (Connelly *et al.*, 2010). Notably, signaling theory is important for investors and consumers in understanding the organizational activities with regards to sustainable finance. It is difficult for the investors to ascertain the extent of the firms' sustainable finance (Vives & Wadhwa, 2012; McDonald & Oates, 2006), thus, Connelly *et al.* (2011) indicates that advertisements of issues such as green products (bonds) are some of the sources of information used by the investors. Investors are drawn to companies that integrate sustainable practices thus, as investors explore sustainable investments in the capital markets, from a signaling perspective, the effect of the signals or information about the firms' commitment to sustainable finance have a significant effect on investment decisions (Connelly *et al.*, 2011; Salehi *et al.*, 2014). Moreover, it is possible that firms could be more inclined to investing in the costly signals with the view of attracting the receivers of the signals (investors in the capital markets). On the other hand, investors could also engage in providing feedback to the firms, by increase in investments, which could then improve on the sustainable finance initiatives in the market (Schoemaker, 2017). Overall, signaling theorists posit that firms improve on their sustainable practices when the stakeholders provide feedback on the effectiveness of these practices.

Signaling theory has relevance and application in this study given that sustainable practices such as issuance of green bonds in the capital markets and green energy investing, are strong signaling tools to investors inclined to firms undertaking sustainable finance practices. According to Maltais and Nykvist (2020), green bonds act as strong signaling tools, which then influence the perception of investors to consider green investing. Notably, the issuance of green bonds has reportedly attracted additional investors to companies who contribute to sustainability. Since sustainable investments such as green bonds are important signals and indicators of companies that demonstrate sustainability in the market (Maltais & Nykvist, 2020), the signaling theory postulate that stakeholders use such signals to make bold statements by equally preferring to invest in ESG-centric sustainable companies thereby augmenting the need for the continued implementation of the ESG architecture. However, the signaling theory was critiqued by Connelly *et al.*, (2010) suggesting that the theory focuses majorly on initiatives undertaken by insiders to deliberately communicate imperceptible, positive qualities of the insider to outsiders, even though not all of these actions could be necessary useful signals.



Figure 2.1: Conceptual Framework (Author, 2023)

Green Financial Investments and Growth of Companies Theoretical Review

Studies showing the correlation between sustainable investments and company growth, precisely within the scope of ESG principles, have been done. Tang (2020) studied the effects of green finance as well as the social finance on the economy, companies, and markets. In the study, data was collected from individual firm stock prices from the Compustat Global database, including the data on the characteristics of firms from WorldScope and Datastream, where 136 countries, 31 countries where green bond had been issued and from 37,594 companies, were considered in the study. The results showed that firms that had better access to green and social finance could withstand the adverse impacts of the COVID-19 pandemic as compared to the other firms. Tang (2020) collected data from 60 countries around the world, where all economies were covered. In cases where green firms could issue green bonds to support the activities of the corporate, there was minimal decline in the value of stocks that was experienced. Moreover, Tang (2020) established that green and social bonds contributed to better economic recovery in the first two quarters of the year 2020 through the third quarter of the same year. This evidences that issuance of green bonds, and the impact of the green financial investments at both macro and micro levels, indeed contributes to the growth of companies, and to a larger extent, the growth of economies. With the global firm focus to channel business resources and efforts towards realizing sustainability, the adoption of sustainable finance by companies will not only accelerate the companies' respective business growth but also trigger additional foreign investments in Kenya's capital markets by global investors.

Chariri *et al.*, (2018) studied the effects of green financial investments on the performance of companies in Indonesia. The researchers used the annual reports of companies that received the award from the Program for Pollution Control, Evaluation and Rating, as well as listed companies in the Indonesia Stock Exchange for the period between 2009 and 2014. Five variables were employed in the study; green investment, the profile of the

industry, size of the firm, financial performance, the frequency in which committee meetings were held for auditing, and the ISO14001 certification. A total of 135 companies that were studied were obtained from the listed companies in on the Indonesia Stock Exchanges, where each sample must have published their annual reports between 2009 and 2014. The results showed that green investments contribute to the increase in the firm financial performance, whereby the better the green financial investment the higher the financial performance of the firms. In addition, green investments were found to positively increase the financial performance of the firms.

This finding by Chariri *et al.*, (2018) demonstrates that green financial investments are strong enablers and an important strategy that can be used to increase the profit and growth of companies, in an environmentally responsible manner. This finding supports the legitimacy theory, whereby larger companies tend to be keen on social and environmental issues compared to the small companies, for legitimacy reasons linked to their alignment of interests to environment and community. Even though, in this study, the researchers found that adoption of green investment could be linked to the company size, it should also be noted that government regulations may also play an integral role in influencing the adoption of such investments. Therefore, the researchers could have incorporated the influence of the government regulations, firm sizes and benefits of green investments to evaluate the impact of green investments on the performance of the companies.

Musau and Rucha (2021) conducted a study to establish the effect of green manufacturing on the operational performance of manufacturing entities in Mombasa county- Kenya. The study adopted cross-sectional survey-design and questionnaires were used to collect data from among the sixty-one (61) manufacturing entities listed by KAM in 2019. The Regression Model Technique (RMT) was used in the study to analyse the quantitative data together with validating the developed research model. The study found that green manufacturing had a positive effect on the manufacturing firms' operational performance. Regression Model Technique (RMT) was used in the study to analyse the quantitative data together with validating the developed research model. The study found that green manufacturing had a positive effect on the manufacturing firms' operational performance.

Thus, according to the researchers, efficient processes in addition to green product design and development, had an effect and significantly enhanced firm's operational performance. Even though this study investigated the impact of green product design on the operational performance of companies, the results may not be applicable to all listed or non-listed companies at the NSE. This is because of the nature of the firms, whereby in the manufacturing industry, green product design is linked to the cost of energy and elimination of toxic materials and reduced cost of production. Moreover, the firms that were considered in the study were selected from Mombasa County. Thus, it was important that the present investigated the sustainable finance initiatives and growth of companies in the entire country, as well as consider diverse companies in the Capital Markets in Kenya, irrespective of the industry.

Ngo *et al.*, (2021) assessed the influence of green finance on the economic growth of companies during the COVID-19 pandemic in the case of Vietnam economy. The study adopted Auto-regressive Distributed Lag approach to examine the links among the predictor variables and dependent variable. With the data collected from Central of Bank of Vietnam as well as the World Bank Indicators, between the years 1986 and 2019, the results showed that green financial investments such as green investments in solar energy, green power investments, or even green loans, have positive associations with the companies' and the country's economic growth. The results projected a close positive correlation between green finance and economic growth. The study is applicable as it established that socially responsible countries have a propensity for economic growth through adoption of green financial investments such as green investments in solar energy, green power investments and green loans.

Soundarrajan and Vivek (2016) studied the role of green financial investments in economic and environmental enhancements in India. The researchers conducted a literature review on green finance for the sustainable growth of green economy in India, where they validated the concept of green finance for the Indian industries. The results showed that green finance is a market-based form of investment or lending, where the environmental impacts are factored, as well as utilization of environmental incentives to inform on the business decisions to be taken. Thus, green finance involves investments which can enhance the environment while aligning the investments to the SDGs. Among the green financial investments that were recommended in the study included green banks, fiscal policy, green bonds, and carbon market instruments, among others. However, the study did not consider all the green investment factors including climate finance.

Bjerborn Murai and Kirima (2015) investigated the state of green investment as well as the financial policy innovations that can be attributed to increased adoption of sustainable finance such as domestic green investment mechanisms in Kenya. Notably, sustainable finance is adopted by companies as a response to climate change and challenges linked to environmental issues. Thus, adoption of green investments in Kenya are focused on enabling success and stability of the companies as going concerns amidst the challenges and changes around ESG aspects (Bjerborn Murai & Kirima, 2015). Otherwise, Bjerborn Murai and Kirima (2015) findings on the local aspiration of companies for sustainable development indicated that companies are focused on growth in investment with a conscious on the ESG criteria.

Odhengo *et al.*, (2019) examined sustainable finance, focusing on a new model of climate financing strategies for companies based in Kenya with the aim of appreciating the country's climate finance experience. In addition, they highlighted the good practices and lessons that should be up scaled with respect to the uptake of sustainable finance in Kenya. The researchers analyzed the different climate finance objectives within Kenya's public budget process, with emphasis on the revenue and expenditure. The main initiatives that were found to have been adopted in Kenya include green bonds, which were projected to be around US\$ 250-300 billion in 2017-18 (Odhengo *et al.*, 2019).

Further empirical studies have established the correlation between sustainable investments and company growth, precisely within the scope of ESG principles. Kocmanová and Dočekalová (2013) found that ESG was an important parameter for companies in making financial decisions and evaluating sustainable development with regards to finance and investment. Kocmanová and Dočekalová (2013) contend that the consideration of ESG parameters while determining suitable investment products and policies, has an impact on the maximization of the firms, stakeholder, and long-term interests, as is the case of Czech Republic (Maltais & Nykvist, 2020). Financial investments in the capital markets are influenced by the investors, especially when the investors make choices on preferred investment options based on their sustainable values (Schoenmaker & Schramade, 2018). Similarly, when companies raise capital through product offerings such as green bonds, research has established that the market is receptive to such ESG themed products especially noting the growing calls to enhance sustainability and investors increased conscious levels around sustainable value creation (He *et al.*, 2020).

According to Schoenmaker and Schramade (2019), in the transition of companies to sustainable entities, long-term value creation that integrates social, environmental, and financial value are increasingly adopted. The traditional investments involving regular bonds, which only capture financial value in their return space and financial risk, are being complemented by the integration of ESG such as the green bonds (Flammer, 2021; Schoenmaker & Schramade, 2019). However, the issuance of green bonds has varied effect on the eligibility of a portfolio or a project, and thus could be labeled as "green" because of the reputational risks involved (Cochu *et al.*, 2016).

The funding as well as investment strategies of green finance are comparatively different from the finance involving "non-green investments", because green value in the financial activities must be considered in the green finance (Noh, 2018). The concept of green finance has been studied in various contexts, the investment perspective (Falcone *et al.*, 2020; Rashid & Uddin, 2018; Hoshen *et al.*, 2017) and the contributions of the green finance to the economic development and environmental enhancement (Gilchrist *et al.*, 2021; Soundarrajan & Vivek, 2016). At the global level, research on green financial investment has been done in economies like India and Bangladesh. In India, the role of green financial investment in economic and environmental enhancements was studied by Soundarrajan and Vivek (2016), where the researchers appreciated the need to scale up the financing of the investments which can enhance the environment while aligning the investments to the SDGs. Among the green financial investments that were recommended by Soundarrajan and Vivek (2016) include green banks, fiscal policy, green bonds, and carbon market instruments, among others.

However, despite the numerous opportunities that the country has towards ensuring adoption of sustainability initiatives, Odhengo *et al.*, (2019) noted that monitoring, evaluation of the implementation process and the impact of the sustainable finance initiatives including green investments were still weak. Thus, the researchers recommended continuous studies on, especially with regards to climate financing and subsequent amelioration of climate change. It is based on these recommendations that this study examined the extent to which companies in the capital markets have adopted green financial investments and thereby provides a comprehensive update backed by primary and secondary data.

III. Research Methodology

Presents the technique applied by the researcher in conducting the study and characterizes research design involving collection methods, data measurement and analysis. Descriptive research design was employed in the study to determine the influence of green financial investments on growth of companies in the capital markets in Kenya. Descriptive research enables projections of phenomena as accurately as possible Atmowardoyo (2018). The population targeted encompassed 48 companies listed at the NSE. Census survey was applied in the study and covered the entire scope of 48 listed companies as expounded by (Tarozzi & Deaton, 2009) who contend that census survey capacitates wholistic enumeration of all constituents under study. The study utilized primary data sources to collect data. A self-administered semi structured questionnaire was adopted, with respondents being accorded sufficient time to respond. The collected data was sorted, edited, coded, cleaned and tabulated for data analysis. The cleaning process involved checking for the accuracy, completeness, and usability of the data, prior to data analysis. The cleaned data was analyzed based on the nature of the data.

The research instrument was tested for reliability in which case Cronbach Alpha statistic was applied.

To test the relationship between green financial investments and growth of companies in the capital markets in Kenya, the regression model was used. The regression method of data analysis was useful in testing

the influence that the independent variable has on the growth of companies. The equation for the multiple regression model was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon \quad \text{.....Equation 3.1}$$

Where;

Y represents the growth of companies

X₁ represents green financial investments.

B₀=Constant-the y intercept

Correlation analysis was undertaken to assess relationships between the independent and dependent variables.

Test for Normality

The normality of the data was examined using the Shapiro-Wilk test. The Shapiro-Wilk test's null hypothesis states that variable data is drawn from a population with a regularly distributed population. Therefore, for data to be normally distributed, the p-value must be higher than the significant level of 0.05.

Table 4.15: Test for Normality of Data

	Shapiro-Wilk		
	Statistic	Df	Sig.
Growth of Companies	.938	44	.293
Green financial investments	.949	44	.445

The p-value of the study variables were above significance level of 0.05. Growth of companies had a p-value of 0.293, Green financial investments had p-value of 0.445, This implies that data was normally distributed.

Heteroskedasticity Test

Linear regression models assume that the error terms are usually identically independently distributed with mean zero and constant variance (homoscedasticity). Heteroscedasticity assumes that the dependent variable(s) display an equal level of variance across the predictor variable(s) range. Heteroscedasticity is among the assumptions needed for multivariate analysis. The Breusch-Pagan test of heteroscedasticity was applied, and the results are shown in Table 3.2. Normally, homoscedasticity is confirmed when the significance level (0.05) is below the p-value. Notably, the significance limit of 0.05 was below the p value of 0.3564 confirming presence of homoscedasticity.

Table 3.2: Breusch-Pagan test

Ho: Constant variance

Variables: Fitted with values of Growth of Companies

Chi2 (1)	0.850
Prob>chi2	0.35640

IV. Research Findings and Discussion

Descriptive Analysis

The study applied descriptive statistics to describe the scores of data obtained using mean, standard deviation, and percentages. To obtain information about the independent variable Green Financial Investments, five statements were asked. On the statement “Structured green investments accelerate business growth as they signal to investors & customers the company’s intent to achieve sustainability” 75% of the respondents agreed to the statement whereas 13.6% of the respondents disagreed to the statement with a mean of 3.89 and standard deviation 0.739. On the second statement “The company has benefitted from the adoption of renewable energy sources?” 79.5% of the respondents agreed to the statement whereas 6.9% of the respondents disagreed to the statement with a mean of 4.21 and standard deviation 0.741.

On the statement “Investors are increasingly preferring to invest with companies that seek to support mitigation & adaptation actions aimed at addressing climate change.”, 70.5% of the respondents agreed to the statement whereas 9% of the respondents disagreed with the statement, with a mean of 3.82 and standard deviation 0.885. Regarding the statement “Are quality standards, policies, and green taxonomy useful in minimizing green washing/ misuse of green criteria”, 53.5% agreed to the statement whereas 23.5% of the respondents disagreed to the statement, with a mean of 3.33 and standard deviation 1.251. On the statement “Investors are becoming more invested and aligned to companies that are environmentally responsible.” 68.2% agreed to the statement whereas 15.9% of the respondents disagreed with the statement, with a mean of 3.17 and standard deviation 1.178.

Table 4.1: Green Financial Investments frequencies

Green Financial Investments	SA%	A%	N%	D%	SD%	Mean	Std
Green finance: Structured green investments accelerate business growth as they signal to investors & customers the company’s intent to achieve sustainability.	13.6 6	61.4 27	11.4 5	9.1 4	4.5 2	3.89	0.739
Green energy: The company benefitted from the adoption of renewable energy sources.	38.6 17	40.9 18	13.6 6	4.5 2	2.4 1	4.21	0.741
Climate finance: Investors increasingly prefer to invest with companies that seek to support mitigation & adaptation actions aimed at addressing climate change.	25.0 11	45.5 20	20.5 9	6.8 3	2.2 1	3.82	0.885
Green policies: Are quality standards, policies, and green taxonomy useful in minimizing green washing/ misuse of green criteria?	17.1 8	36.4 16	22.7 10	10.4 4	13.1 6	3.33	1.251
Investment level: Investors are becoming more invested and aligned to companies that are environmentally responsible.	20.5 9	47.7 21	15.9 7	9.1 4	6.8 3	3.91	1.100
Valid N	44						

To obtain information about the dependent variable Growth of Companies, five statements were asked. On the statement “Profitability is synonymous with company growth” 81.8% agree to the statement whilst 4.5% of the respondents disagreed with the statement, with a mean of 4.04 and standard deviation 0.875. Regarding the statement “Investment returns has an impact on a company’s growth trajectory”, 56.8% agreed to the statement, whilst 25% of the respondents disagreed with the statement, with a mean of 3.27 and standard deviation 1.177. On the statement “Has the company realized growth resulting from integrating ESG in business operations”, 88.6% agreed to the statement whilst 9.1% of the respondents disagreed with the statement, with a mean of 4.08 and standard deviation 0.809. On the statement “Availability of financial resources is pivotal in influencing growth of companies” 93.2% agreed to the statement whereas 6.8% disagreed with the statement, with a mean of 4.43 and standard deviation 0.883. On the statement “Would you say that over the last five (5) years there has been growth in your company” 52.3% agreed to the statement whilst 20.4% of the respondents disagreed to the statement, with a mean of 3.25 and standard deviation 1.150.

Table 4.2: Growth of Companies frequencies

Growth of Companies	SA%	A%	N%	D%	SD%	Mean	Std
Profitability is synonymous with company growth.	27.3 12	54.5 24	13.6 6	2.3 1	2.3 1	4.04	0.875
Investment returns has an impact on a company's growth trajectory.	2.3 1	54.5 24	18.2 8	20.5 9	4.5 2	3.27	1.177
Has the company realized growth resulting from integrating ESG in business operations.	56.8 11	31.8 28	2.3 1	9.1 4	0 0	4.08	0.809
Availability of financial resources is pivotal in influencing growth of companies.	50.0 22	43.2 19	0 0	4.5 2	2.3 1	4.43	0.883
Would you say that over the last five (5) years there has been growth in your company.	11.4 5	40.9 18	27.3 12	13.6 6	6.8 3	3.25	1.150
Valid N 44							

Explanatory Factor Analysis

To test whether the items were associated with specific factors, Exploratory Factor Analysis (EFA) was used. EFA was used to identify factors based on data and to maximize the amount of variance explained (Onyango, 2018). EFA is used where the study is being conducted with no pre-conceived theories or expectations (Hair *et al.*, 2013). EFA was conducted in order to understand the structure of the variables before further data analysis. This helped in applying appropriate data analysis techniques to avoid crucial violation of key study assumptions in consequent modelling process (Hair *et al.*, 2013). To assess the factorability of items, two indicators were examined namely, Kaiser Meyer-Olkin measure of sampling adequacy and Bartlett's test of Sphericity.

Kaiser Meyer-Olkin and Bartlett Test of Sphericity

Kaiser Meyer-Olkin and Bartlett test of Sphericity were generated by SPSS and helped to assess the factorability of data or suitability of data for structure detection (Kimaku, 2019). Kaiser-Meyer-Olkin (KMO) test was used to assess sampling adequacy. The index ranges from 0 to 1 (Tabachnick & Fidell, 2011). For adequate sample, KMO test statistic should be greater than 0.5 (Hair *et al.*, 2013). The world-over accepted index is 0.6 or higher to proceed with factor analysis (Wegener, 2019). Table 4.14 shows KMO statistics of 0.874 which is greater than the conventional probability value of 0.5 and over .60 for a satisfying sample. This implies an acceptable degree of sample adequacy for factor analysis. The Bartlett's test of Sphericity value was significant since p-value < 0.001.

Table 4.3: KMO and Bartlett's Test

KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.874
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.

Linearity Test Results

Regression analysis makes the premise that the relationships between the predictor (independent) variable and the response (dependent) variables are linear. When the values of the independent variable (X) and the values of the dependent variable (Y) appear to be in a straight line when plotted on a graph, there is a tendency for a linear connection to exist. The slope of the line could be either positive or negative.

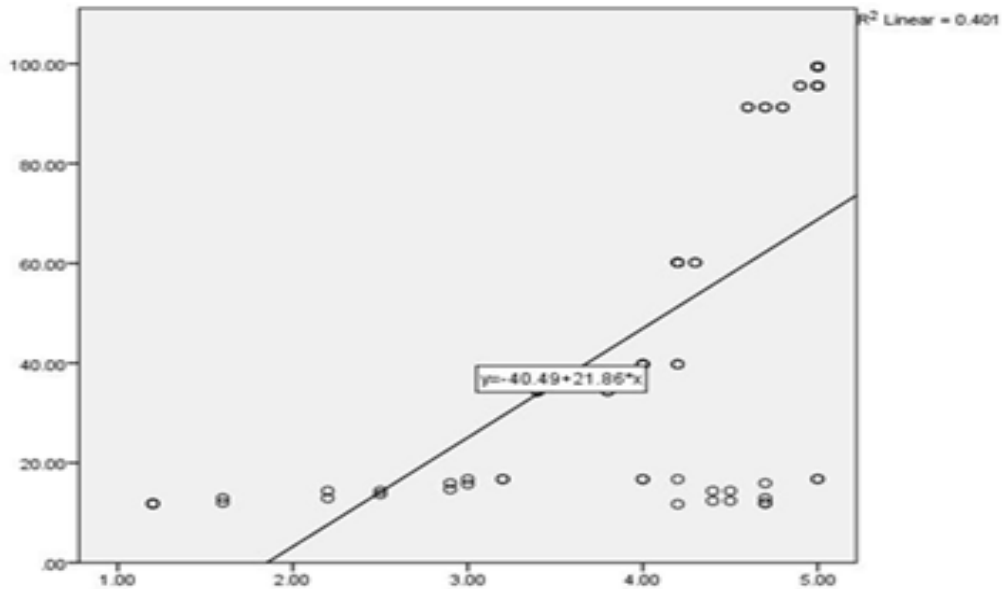


Figure 4.1: Scatter plot for the Green financial investments and Growth of companies

As illustrated in Figure 4.1, the Green financial investments have a positive linear relationship with growth of companies. The findings imply that an improvement in the Green financial investments would lead to an improvement in the growth of companies. The results further indicate that the Green financial investments could explain 40.1% of the growth of companies. This means that having Green financial investments is positively associated with growth of companies. These findings are consistent with Nyakundi (2021) argument that Green financial investments techniques have a significant effect on the financial performance of manufacturing companies quoted on Nairobi securities exchange.

Regression Analysis: Multiple regression was employed in the research to determine the relationship between the predictor variable (Green Financial Investments), and the dependent variable (growth of companies in the capital markets in Kenya). As shown in Table 3.3, the regression summary model of green financial investments and growth of companies resulted to a coefficient of determination of $r^2=0.611$ ($p=0.000 < 0.05$). This signified that 61.1% growth of companies in the capital markets can be explained by green financial investments that was significant.

Table 4.4: Model Summary

Model Summary									
Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.781 ^a	.611	.606	.60541	.611	121.520	1	43	.000

a. Predictors: (Constant), X1

ANOVA

The model’s suitability for the data was assessed using Analysis of Variance (ANOVA). The study investigated the causal effect of Green Financial Investments and (growth of companies in the capital markets in Kenya) as the dependent variable. The findings projected model of fitness, ANOVA tests and the regression of coefficients. The ANOVA analysis show that the independent variable was significant in predicting the dependent variable. The model was deemed to be a good fit for the data because the F calculated exceeded the F crucial, and the significance threshold of (0.05) was above the p-value (0.000).

Table 4.5: Regression Coefficients

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-31.158	.034		-.001	.999		
	X ₁	87.746	.075	.344	6.626	.000	.465	2.149

a. Dependent Variable: growth of companies in the capital markets in Kenya

The fitted model was,

$$Y = 31.158 + 87.746 \text{Green Financial Investments}$$

The findings revealed that Green Financial Investment have a positive and significant effect on growth of companies ($\beta_3=87.746$, p-value= 0.000). The association was significant because the p-value (0.000) was less than the significant level (0.05). This implies that an improvement in Green Financial Investment will lead to a 87.746 improvement in growth of companies. These findings concur with Semucyo (2021) argument that Green Financial Investment significantly influence performance of Rwanda's private insurance companies.

V. Summary of Findings, Conclusions and Recommendations

The results of the multiple regression analysis showed that green financial investment has a favourable and significant impact on the growth of companies in the capital markets in Kenya. Consequently, the study rejected the null hypothesis (H_0 : Green financial investments does not influence growth of companies in the capital markets in Kenya) and concludes that green financial investments significantly influence the growth of companies in the capital markets in Kenya.

The study therefore recommends increased issuance and uptake of green financial investments with emphasis on implementating the broad Environmental, Social and Governance (ESG) spectrum. In order to foster sustainability, the capital markets have a significant role to play in: incorporating disclosure of ESG risks in investment analysis and portfolio construction, aligning to global frameworks such as the Paris Agreement on Climate change, providing green centric investment options and reinforcing effective climate risk management and adaptation. The implementation of these among other strategies will fundamentally improve the climate-resiliency levels significantly. The impact of green financial investments on the growth of companies in the capital markets in Kenya should be regularly monitored and evaluated to ensure that they are achieving their intended outcomes and to identify areas for improvement. There is a need for increased awareness and education among investors, companies, and other stakeholders on the importance of green financial investments and how it can contribute to long-term growth and success. Capacity enhancements through training and sensitization programs could also be undertaken. Considering the urgency of climate resiliency and growing calls for companies to align to ESG criteria, the Government could consider integrating ESG learnings in the school curriculum and syllabus in order to enhance understanding and implementation. With all the above and in order to further boost climate resiliency, accurate and consistent disclosure of climate change risk practices by capital market participants will be vital as the market could use this as a tool to price a company's carbon footprint. This would subsequently create incentives to reduce carbon emissions fundamentally ameliorating the climate change crisis. Overall, these recommendations are fundamental in promoting adoption of green financial investments and sustainable finance practices and can contribute to the long-term growth and success of companies in the capital markets.

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