INFLUENCE OF CORPORATE SUSTAINABILITY ON SHARE PRICES OF LISTED COMPANIES IN THE NAIROBI SECURITIES EXCHANGE

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DECLARATION

This research project is my original work and has not been presented in any other University

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The research project has been submitted with my approval as the University Supervisor.

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DEDICATION

This work is a dedication to my loving mom Joyce Nyambura Wanjihia, my late Dad Wanjihia Paul Mwangi (who never lived long enough to see this dream) my beloved wife Beatrice Wangui and our children Mitchell Nyambura Maina, Ryan Wanjihia Maina and Dylan Kiarie Maina.

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ABBREVIATIONS AND ACRONYMS

ASEA African Stock Exchanges Associations

BVPS Book value per share

CSR   Corporate social responsibility

DPS   Dividend per share

EPS   Earnings per share

FTSE   Financial Times Stock Exchange

IPO   Initial Public offering

KCB   Kenya commercial bank KCB

MPS   Market Price per Share

NASI   The NSE all-share Index

NSE   Nairobi Securities Exchange

ROI   Return on investment

ABSTRACT

The intense corporate competition coupled with increased investor awareness and focus on ethical and environmental good has permeated the financial and capital markets in the last three decades. Corporate sustainability focuses on increasing a firm's survival into the future by balancing the three objectives of economic, social and environmental wellbeing. The study sought to determine the effect of corporate sustainability on the market share price of listed companies on the Nairobi securities exchange broken down into four specific research objective; to determine economic success effect on share prices of listed companies, to establish product stewardship's effect on share prices of firms, to determine the effect of corporate citizenship on prices of shares of firms and to examine the environmental stewardship effect on prices of shares. The study adopted a descriptive survey design in order to have a deeper view into the relationships and the effects of corporate sustainability on the market share price among firms listed on the Nairobi securities exchange. Target population comprised all the 64 firms listed on the NSE categorized into nine groups. The study took a census of all the NSE 20 share indexed companies. Only secondary data from published sustainability reports, financial reports from company websites and those obtainable from the CMA were used. The researcher made use of secondary data collection template. Based on regression analysis, the study revealed that all the variables were significant in affecting market share price of the firms. The F statistics was 0.168 at $p<0.05$, 0.395 and 0.49 respectively at $p<0.05$. All variables were used in the final model. The study was restricted to the assessment of the effect of the corporate sustainability on market share price. This calls for replication of a study of the same nature in other functional and related public sector organizations and a comparison made on the dependability of the findings on service delivery on these public organizations. The study was also limited by the sample size since only 20 firms were studied. This therefore creates a need of replication inorder to covet the entire listed firms on the NSE. Based on the study findings, the researcher recommends an intense adoption and implementation of sustainability initiaves by firms which would translate to favourable corporate sustainability and hence influence growth a firm's Market price per share.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The dramatic economic, social and environmental consequences occasioned by organizations activities have lately invoked the interest of investors and other stakeholders (IPCC, 2018). Consumers groups, governments and non-governmental organizations as well as sustainability conscious investors have continually stressed the need for organizations to adopt sustainability in its tripods- economic, social and environmental. Sustainability incorporates a firm's endeavors and commitment to improve and balance its environmental, social, governance and economic objectives. Environmental issues, ethics, corporate citizenship, and corporate social responsibility have emerged as imperative elements in business practice (Huang, Tan & Ding, 2015). This study was explained by use of three theories namely; the Resource Based Theory which explains how a firm can nurture resources unique to the firm such as environmental management systems and audit, corporate citizenship and corporate social responsibility strategies to influence investors to pay a premium prices for its shares. Ecological modernization theory explains how continued green innovations in a firm's operations can influence public and analysts positive sentiments hence greater future prospects of good returns. Stakeholder Theory portrays clearly the relevance of stakeholder involvement and community improvement through corporate social responsibility and corporate citizenship. Investors will pay premium prices for firms that uphold ethics, share resources with the community and that which is committed to improving the welfare of the community (Canzaniello, Hartmann & Fifka, 2017).

This research project outlines the need to recognize the fact that in the current globalised world, besides economic value based factors, share prices are being determined by intangibles like environmental responsibility, ethics, corporate citizenship, and corporate social responsibility, all of which have emerged as imperative elements in today's business practice (Huang, Tan & Ding, 2015). At the NSE, the concept of corporate sustainability reporting is also becoming imperative in informing investor decision on share price offerings. Investors are increasingly using

sustainability factors as primary filters in investment security selection hence, making it impossible for organizations to survive by simple pursuit of profit alone(Sroufe, 2016).

1.1.1   Corporate Sustainability

Corporate sustainability is the deliberate effort by a firm to balance the tripod objectives of economic success, conservation of the planet (environmental) and enhancement of social and governance reputation. The popularization of the new paradigm of business sustainability in the world emanates from the Bruntland report (1987) and Elkington's "Cannibals with Forks: The Triple Bottom Line of 21st Century Business". (Beske & Seuring, 2014; Ashby, Liet & Hudson-Smith, 2012).

A business organization can operationalize sustainability through a multiple and iterative approach of integrating the triple bottom line concepts in a way that is achieves its desired financial value, ecological and communal prosperity. Green responsible and conscious organizations will strive towards resource use minimization, closed loop economies, reduction of supply chain impacts, energy efficient technologies and renewable energy use (Schaltegger & Burritt, 2014). Still others will pursue waste prevention and management, natural resource use, environmental control and restoration as well as cooperation with the public (Maack, 2012).

According to Sarkis, Zhu and Lai (2011), a socially sustainable organization will ensure that social wealth is responsibly managed comprising of skills, abilities and ambitions of workers and society based values. As corporate, an organization will increasingly pursue not only the improvement of capacities of individuals but also the capacity of the society or the community (Dyllick & Hockerts, 2002. The blended version and the most agreed upon model of sustainability is Venn diagram which is composed of three concentric circles representing the links between   environmental, social, and economic dimensions of sustainability. (Giddings, Hopwood, & O'Brien, 2002). Sustainability is in the diagram is represented in the areas of overlap of the three circles.

1.2.1 Share Prices of Listed Firms

In a bourse, an investor may trade in a range of financial assets where share is one. As in any form of financial asset, investment is guided by the elements of risk and returns (Al-Qaisi, Tahtamouni & Al-Qudah, 2016). Stock prices in the equity market are reflective of the imperatives of the commercial health and strength of a listed firm. Additionally, share prices also apprise the investors on leadership performance and vision. According to Sharma (2011), prior research is indicative of the fact that variations in share prices results from varying factors, knowledge of which helps in the conveyance of prize data to a firms managers. Traditionally, the prices of a share has always been regarded to be a factor of the value of assets, dividend pay-out, a country's gross domestic product (GDP), net asset value, interest rate, political policy regime, analyst reports and technical influences (Njogu, 2017). Serafeim (2018) has pointed out that, in modern equity investment, investors are always ready to offer superior prices for share of companies that have adopted green and social consciousness in their operations.

1.1.2 Corporate Sustainability and Share Pricing in a Securities Exchange

Today's corporate arena is being characterized by stiff competition for fast shrinking natural resources, global warming, climate change, social concerns and explosion of consumer and investor awareness (Serafeim, 2018). This calls for the adoption of corporate sustainability. Indeed, the UN, in establishing the Sustainable Development Goals (SDGs) in 2015 urged all corporate organizations to strive to be informed by sustainability agenda in making investment decisions, strategies and policies (UN, 2015). The drive for sustainability to inform investment and investor sentiments is informed by the common agreement that both the economic, environmental and social wellbeing of man is heavily burdened by business activities (Dam et al., 2014).

The relationship between the triple bottom-line concepts can be conceived from the multinational giants like WorldCom, Enron and Lehman Brothers that reported super profits before discovery by investors and stakeholders of their concealed unethical business activities and hence their downfall (Sarbox, 2002). In the auto-industry, cheating in the design of emissions technology among Nissan and Volkswagen resulted in massive share price falling (EPA, 2017; Forbes, 2018). Businesses having robust ecological, ethical and are administered according to the tenets of fair governance

depicts positive investor sentiments and investors associate them with less financial risk, higher consumer and regulatory ratings and going concern (True Value Labs, 2018).

General Investment Management (GIM) (2017) observes that the continued provisions and support of the planet and the people must be aggressively protected by the businesses and investor sentiments. Negative environmental impacts affect the welfare of the people and hence directly shorten the life and the value of a firm (GIM, 2017). Investors will pay premiums for share of firms that actively endeavours to establish environmental management systems and audit and those with clear social integrity and accountability systems (True Value Labs, 2017).

In Kenya, two listed firms that have adopted sustainability initiatives are worth noting, Safaricom Telecoms and Kenya Commercial Bank (KCB) Group. From its IPO in 2008, Safaricom regularly reported falling in average year to year share prices till the year 2013 when it adopted the Global Compact's Global Reporting Index (GRI), an initiative for sustainability.

Since 2014, the firm has reported increasing year-year increase in average share price increase, topping the highest of over 550% increase in 2017. KCB Group, the largest bank in Kenya by asset base was a loss making entity until 2014 when it adopted both the GRI and the equator principle for financial operations.

1.1.3 Nairobi Securities Exchange

Shares trading in Kenya commenced in 1920 purely on the basis of gentlemanly agreement until 1954 when it was formally registered as a voluntary association of stock brokers. Its primary responsibilities were to develop securities market and regulation of stock trading activities in Kenya. In those ages, it adopted telephone operations with share prices determined through negotiations. By 1975, the NSE had listed 66 firms spread across East Africa after which NSE has seen a lot of developments including, setting up of CMA in 1994 as a regulator, adoption of computer-based delivery and settlement system (DASS), addition of more stock brokers, formation of association of Kenya stock brokers (AKS) in 1997, the splitting of NSE into three segments comprising of the investment market, alternate investment market and fixed income

securities market. The NSE also joined the African stock exchange association (ASEA). In terms of trading volumes, NSE is number four in Africa and fifty based on market capitalization as a percentage of GDP ratios. (NSE Handbook, 2008).

1.2 Research Problem

Globally there is an increasing demand for sustainable investing. This investment transformation is being fuelled by the need to guarantee an economy of the future which will be safer, cleaner, and healthier. The push for the change of how firms do business is being done by an increasing number of investors who are concerned about how they make their money. This have seen investors getting more concerned about the growing impact of corruption, climate change and global warming, depletion of global energy reserves and the accompanying conflict and hence avoid investing in stock of firms seeking only economic profitability while ignoring environmental and the societal concerns. (Ochieng, 2018).

In Kenya, NSE share prices have been on the decline, hence challenging organizational management to think deeply on strategies of implementing corporate sustainability initiatives as a way of achieving the much needed economic advantage (Njogu, 2017). Also, there is dearth of literature and research linking the integrated corporate sustainability practices to listed companies share prices. Studies in Kenya, still links the traditional economic indicators of earnings dividend, and asset value to share prices of listed firms. (Njogu, 2010).

Steiner (2012) propounds that, the internalization of corporate sustainability initiatives by firms' can lead to vast reduction in costs, waste generation, energy conservation costs, and an enhancement in productivity and corporate image. In the same note, Ioannou & Serafeim (2010) and Cheng et al. (2014) Studying among companies in EU and the USA found that good product stewardship, green practices and innovation, ethical partnerships, good social rating and accountability brings myriads of benefits including easy access to financing, positive sentiments and recommendations among investment analysts

Camilleri (2017) looked at corporate citizenship and CSR policies in the USA. Using a case study, the study found a relationship between corporate citizenship behaviour and stakeholder and institutional theories. At local level, Njogu (2010) sought to establish factors influencing stock pricings of shares at the Nairobi bourse after the initial public offering. The study found that dividend policy and liquidity informs share pricing after initial public offering. Nderi (2013), Swaleh (2013) and Gichohi (2014) examined associations between social responsibility commitments and financial disclosure on share prices among companies participating in the Nairobi bourse. They showed that social responsibility commitments have greater effects on investor sentiments and decisions on share pricing.

It is noticeable that, the studies focused only on one dimension of sustainability, solely focusing on either economic sustainability, environmental and social sustainability all of which are aspects of corporate sustainability. In Kenya, previous studies have concentrated more on the traditional value based determinants of share prices while others have leaned more on corporate social responsibility and has not comprehensively analysed the influence of the three dimensions of corporate sustainability. Further, these studies are more than five years old. This provides the gap upon which this study is based. Therefore this study sought to answer the question "what is the relationship between corporate sustainability initiatives and share prices of NSE listed firms.

1.3 Objectives

The general objective of the study was to determine influence of corporate sustainability on share prices of listed firms in Kenya.

1.3.1 Specific Objectives

i. To determine economic success effect on share prices of listed companies.
ii. To establish product stewardship's effect on share prices of firms.
iii. To determine the effect of corporate citizenship on prices of shares of firms.
iv. To examine the effect of environmental stewardship on prices of shares.

1.4 Value of the Study

Corporate sustainability has been recognised as the new paradigm that drives not just business operations but also investment decisions around risk and returns of equities. The study stands to be beneficial to all the stakeholders especially policy makers in drafting policies that ensures that the current generation meets their needs in a sustainable manner without jeopardizing the ability of future generations to do the same. These are Policies addressing the environmental, social and economic sustainability and their reporting for both listed and non-listed firms in Kenya

In practice, policy influencers, investors, investment analysts and business managers will be able to make informed decision especially in implementation of corporate sustainability initiatives. It will also inform balancing between the traditional value based influences of share prices and sustainability factors.

The study stands to contribute immense knowledge and theory by helping make sense of the complicated relationships that link corporate Sustainability to the price of shares. This will enable academics and researchers to move from mere exploratory to more detailed analyses and investigations in the sustainability. As has already been pointed out, the last five years has seen dearth of literature linking corporate sustainability and trends in stock prices. This research work also adds to literature that focuses on the integrated tripods of the new paradigm of sustainability.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section focuses on theories and literature on economic success, environmental stewardship, corporate citizenship product stewardship and their linkages with share prices of Kenyan listed firms. Finally, research gap and chapter summary are presented.

2.2 Theoretical Review

A critically examinamination of the key theories anchoring the study is presented. Resource based theory, stakeholder theory and the ecological modernization theory will be used in specifiying relations between the study variables.

2.2.1   Resource Based Theory

The theory is derived from 20th century works of Recardian and Penrosian economics. Birger Wernerfelt (1884) originally coined the term "resource-based view". In its view, the use of resources unique to a firm can lead to the achievement of consistent and sustainable supernormal returns. (Peters, Hoffsteters & Hoffmann, 2011; Barney, 2001). A highly competitive firm will mint exemplary initiatives and systems like superior production and operational quality systems, trust and relationship building, community enrichment, ethics and fair dealing, fair labour practices, environmental management systems as well as good citizenship (Versei, 2014; Connelly & Slater, 2011). These are believed to build greater corporate value, superior brand, customer loyalty and positive public and investor sentiments (Serafeim, 2018).

In the proposed study, the theory will be used to help explain how accumulation or lack of bundle of valuable sustainability resources, competences and capabilities such as green management systems and strategies, ethics and fair dealing, stakeholder trust and relationship can inform positive investor or investment analysts' valuation of company stocks.

2.2.2 Ecological Modernization Theory

Ecological Modernization Theory emanates from the work of Huber, Janicke and Simonis in the 1980s. In this theory, the authors posit that the continued human innovation and invention in business should be accompanied with equal effort to ensure ecological safety and security. EMT, postulates that greater efficiency, economic value and higher share values would be permeated through new innovations and inventions in material use, fuel conservation, natural resource use, and the designing of closed loop economy. EMT has grown to focus on the impact of investment in social schemes how it relates with a firm's economic value (Mol, 2002). Spaargaren and Mol (2012) proposes that because the future of the business is hinged on the welfare of the planet, investors are therefore called upon to pay premium prices for shares of firms that place premium on environmental and social responsibility.

In the proposed study, the EMT explains how continued innovation around environmental preservation, good governance and improved social reputation of a firm can be eyed by the investors as a platform for share price valuation. That those firms listed in different bourses and which are keen on environmental and social innovation will continuously reap value in form of premium price offering by environmentally and socially conscious investors, investment advisors and analysts.

2.2.3 Stakeholder Theory

Stakeholder theory was first described by Freeman (1984). He defines a stakeholder as anyone who stands to affect or be affected by business activities either directly or indirectly in pursuit of organizational goals. The argument of this theory is based on the need of firms to address the interests of its stakeholders in the pursuit of its goals. (Benner and Cochran, 1991). In the context of the proposed study, stakeholders are the investors, the public, and the investment analysts, all whose sentiments would act as influencers in the determination of the value, competitiveness and survival of a business. In this regard sustainability requirements, plans and desires of stock market investors would be key on improving a company's share prices beyond current operational period.

A business organization can initiate and sustain sustainability through a multiple and iterative approach of integrating the triple bottom line concepts in a way that is achieves economic, environmental and social benefits to the entire organization.

2.3   Empirical Review

This part of the study scrutinises the work of different past researchers in the area of the study concepts of economic success factors, product stewardship, environmental stewardship, corporate citizenship and and share prices globally.

Narsa (2017) looked at the association of CSR disclosure and stock prices with customer loyalty as the causal link. He carried out a census study of all the mining firms in the Indonesia stock exchange from 2008-2014. Only secondary data from yearly and from sales reports was utilized. As highlighted by the researcher, CSR disclosure included; availing an assessment of the impacts of the businesses performance on the environmental and societal dimensions, reporting, and a provision for an information systems capable of providing a full assessment report on the specific company capabilities plus effect on sustainability based on its activities. The study findings presented a positive relationship of CSR disclosure and stock prices.

Dam and Petkova (2014) discussed the effect of commitment to environmental driven supply chain sustainability and it's perceived in terms of reward by stock markets and the effect of such commitments to stock prices. Utilizing sample of 66 firms with fully internalized environmental supply chain sustainability programs (ESCSP), the researcher conducted an event study and there after a two-equation Heckman modelling. The researcher's findings showed that a sizeable number of the organizations implementing sustainability programs, were participants in an industry exchange consortium. Study analysis indicated a significant negative reaction to stock price on announcement of participation in this ESCSP.

Sebastenialli *et al*. (2011) studied the links that exist amongst enhanced green performance and stock prices of publically listed firms. The researcher relied on ISO 14000 environmental management systems and audit for data sourcing. Correlation and linear multiple regression models were used. There was a revelation of a positive effect

of ISO 14000 certification the stock price. On the other hand, Uwuigbe, Olusegun and Godswill (2012) examined Nigerian stock exchange for the determinants of stock prices. The researchers used judgmental sampling technique, and a sample of 30 firms selected. Data used was retrieved from the firm's yearly reports available from 2006 to 2010. The researcher concluded that not only knowledge of but also the practice and development of corporate citizenship among listed companies had negative but significant effect on the market value of stock prices in Nigeria.

Gichohi (2016) using a descriptive research design to test for existing links between CSR and stock prices of NSE listed companies. The researcher studied the link connecting CSR and price of stock movement of firms in Kenya. Data was obtained from financial statement, websites and publications. Secondary data was obtained from the year 2010 to 2014. The study established a positive but insignificant CSR effect on stock price movement. Mutwiri (2011) used a descriptive research approach to evaluate the effects of eco-management systems and audit programs on stock prices of non-finance institutions trading on the NSE from 2010-2016. The author analysed secondary data for financial returns extracted from the websites of the firms in the same period of listing. The study showed that increase in activities like eco-training, eco-audit systems, life-cycle management and initiation of closed loop system were followed by increased share prices.

Ratemo (2015) sought to investigate the effects of CSR on stock price determinants at NSE. Data was collected on a five year period from 2008 – 2012. The researcher used regression analysis to determine the effect variables on stock prices. The results indicate in inadequacy of one model in the prediction of stock prices at NSE. In the researcher's view, only Equity Bank possessed a model that proved useful in the determination of stock prices as per the study variables. This also explained the existence of big differential in the firms stock prices ranging from, a high of Kshs 324.00 and low of Kshs 11.85.

The seminal works of Spaargaren and Mol, (2012) based on the ecological modernization theory provides that as firms progress, it important to consider programs aimed at conservation of the environment. The various programs are the various

process, capabilities and strategies such as environmental management systems, audits and life cycle assessment as proposed by resource based theory (Barney, 2012). These proposal agrees with Wiengerten and Longoni (2015); Weingerten et al. (2014); Gimenez et al. (2012); Micheli and Cagno, (2010) who concurred that firms size would affectinternalization of corporate sustainability which in turn will positively influence MPS, collaboratively and coordinatively design resources, pursue product or process certification and pursue common organizational culture types rich in sustainability.

In a bid to explore the supernormal returns accrued by green stock trading companies, Levi and Newton (2016) through their work "flash of green: are environmentally driven stock returns sustainable?" Attempted to attribute the effect on market share price changes to risk. A portfolio of stocks was created using the Trucost data in creation environmental compliant firms. The researcher thereafter compared the risk-adjusted yields derived from the two categories comprising of the firms caring for the environment and those which didn't.. It was determined that on risk adjusted basis, environment supporting companies returns yearly outperformed the non-green shares by a margin of 3.7 percent. The findings indicated a significant although an economically minute impactin the short term but can have a longer lasting and greater desirable benefits to drive green returns.

2.4 Conceptual Framework

Bogdan and Biklen (2003) view the term as schematic representation of a mental block of observational, experimental and analytical features of a process or systems under study. The schematic representation given by figure 2.1 is an indication of the link between corporate sustainability variables. It presents the independent variables as Economic Success,Product Stewardship, Corporate Citizenship and Environmental Stewardship, market share price as the dependant variable and the size of the firm as a control variable.

Independent Variables		Dependent Variables
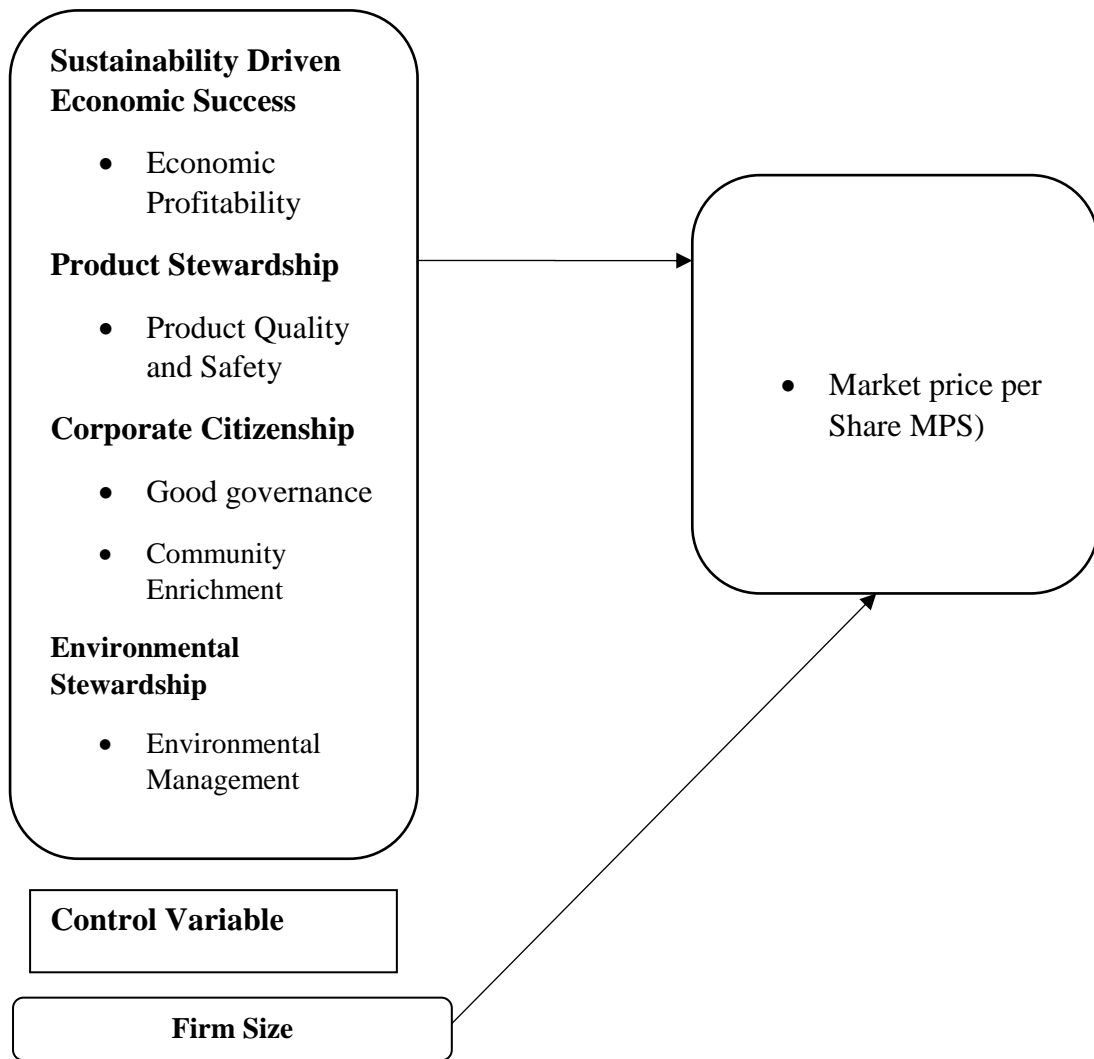
Figure 2.1 Conceptual Framework

2.5 Summary of Literature Review and Research Gap

Researchers all over the world have endeared to discover out the links between individual approaches of business sustainability and stock prices of firms participating in stock exchanges. Camilleri (2017) analysed the long term impact of social consciousness, focusing on corporate citizenship and share prices of US listed firms. Dam et al. (2014) equally looked at the impact of green practices of US firms. It is worth noting that these studies were done among the US firms operating in a more developed business environmental and only focused on individual environmental factors and not on the triple dimensions of sustainability.

Sebastianielli et al., (2015) and Mutwiri (2016) both focussed mainly on eco-management systems and audit, the components of ISO 14000. Sebastianelli's study

was done in the US and as with the Mutwiri Study both focused more on the green sustainability, ignoring the economic and social aspects of corporate sustainability. Though Ratemo (2015) analysed effect of CSR and corporate citizenship, it did not look at comprehensively the integrated triple bottom line effect. This ignored other sectors in the stock market. In summary most of these studies were done in setups and business environment far different from Kenyan business environment. The studies also used different methodologies and considered only the individual sustainability dimensions rather than the known tripods of corporate sustainability

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The focal point of this part are the strategies, action plan, processes or design driving the researcher's choice of any methods and its justification (Zikmund, Babin, Carr & Griffin, 2013). The section reviews the study design, Target population, sampling methodology and frame, methods, data collections tools and procedures, pilot study, analysis all the way to the presentation of findings.

3.2 Research Design

Here, description of type of study and the outline for obtaining, measuring and investigating the inherent characteristics of data for the purposes of drawing inferences is provided (Kerlinger, 2019). According to Kumar (2011), descriptive survey research design provides the appropriate scheme for obtaining data regarding the existing position of the object under study. It enables description of "what exists" regarding measurable quantities or circumstances surrounding variables being studied. The researcher found the design suitable due to its effectiveness in the facilitation of collection of dependable data for explaining the association existing between the study variables (Babbie, 2007).

3.3 Target Population of the Study

This are the whole assortment of objects, organizations, people, artefacts or elements with similar features upon which a researcher would wish to make conclusion (Kumar, 2011). A unit of observation is a single unit or element within the study population. It is from where data will be gathered and whose characteristics are representative of the population (Nassiuma, 2000). The study targeted all the 65 firms participating in the thirteen categories at the NSE (CMA, 2018). In this study, the unit of observation and the unit of analysis will be similar which will be each of the individual firms participating on the NSE as at April, 2018.

3.4 Sample Design and Sample size

Sample design is the overall strategy for collection of study subjects from the study elements (Sekaran, 2015). It is the procedure for picking of a subsection of subjects from the entire collection of population elements to facilitate drawing deduction and

interpretations from data set. The study took a census of all the NSE 20 share indexed companies as at April, 2018, which are the most highly performing, stable listings in the NSE. Most have been listed for more than ten years and have regularly used the Global Reporting Index and Equator principle initiatives of sustainability reporting.

3.5 Data Collection Instrument and Procedure

This study relied secondary data gathered from published sustainability and financial reports available in company websites and those obtainable from CMA. A template was developed with firm numbers on the rows and variable information on the columns to record the same.

3.6 Data Analysis and Presentation

Data classification and analysis is the calculation of the required values together with identification of trends in and associations among study variables (Kothari, 2004; Uwe, 2007). The researcher adopted inferential statistical methods in the forms of stepwise regression to variable relationship to fit the model presented below;

$$Y = \beta_0 + \beta_1 X_1 * Z + \beta_2 X_2 * Z + \beta_3 X_3 * z + \beta_4 X_4 * Z + \acute{\varepsilon}$$

Y	Market share prices (MPS)
β_0	Constant
$\beta_{1\ to\ 4}$	Associated regression coefficients
X_1	Economic success (ES)
X_2	Product Stewardship (PS)
X_3	Corporate citizenship (CC)
X_4	Environmental Stewardship (EnS)
Z	Firm Size
ε	the error term

3.7 Operationalization of Variables

These are the specific criteria for variable measurements used in the study.

Variable	Indicator	Measure	Supporting Literature

Dependent Variable			
Market Price Per Share	Share market Price Trends	Market Price per Share	Mugo (2017)
Independent Variable			
Economic Success	Improved profits	Net profit after tax	Meditinos et al. (2009)
Product Stewardship	Product Quality	Expenditure on quality systems and procedures	Golob, Jancic & Lah (2009)
Corporate Citizenship	CSR Initiatives	Expenditures on ethical structures, community improvement	Stolz (2014)
Environmental Stewardship	Establishment of ISO 14000	Expenditures on eco-management systems and audits	Sebastianelli et al. (2015)
Control Variable			
Size of the firm	Assets Base	Total Assets	Mugo (2017)

3.8 Diagnostic Tests

Error term being key assumptions for usage of regression analysis, the researcher performed both normality test and heteroskedasticity tests. Normality test was performed using the Shapiro-Wilk test and Beusch- Pagan test was used to test for heteroskedasticity.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The chapter presents the results of response rate analysis, reliability and validity analysis, diagnostic tests, the descriptive and inferential analysis and lastly the results and the discussions on the study findings.

The researcher sought to determine the influence of corporate sustainability initiatives on the market share prices of listed firms. The specific objectives were to determine the effect of economic success, product stewardship, corporate citizenship and environmental stewardship on the market share prices of listed firms. The findings of the study were presented using descriptive and inferential statistics and the descriptive statistics are given in form of means and the standard deviations.

4.2 Response Rate

Secondary data was gathered from 20 firms that comprise the NSE 20 share index between 2013 and 2017. The total observable items were 100. Secondary was data extracted from published financial and sustainability reports, websites and hard copy documents filed by the company's with CMA as at 31st December, 2013 to 31st December, 2017. From the initial data collection and tabulation, it was discovered that all participating companies had the required data in the required form in their published reports. The final five year average data derived from raw data appendix v for the companies was presented in Table 4.1.

Table 4.1: Five Year Average Data for the Companies

firm ID	Eco. Success	Prod. Stew	ECC	ENS	MPS
1	17663.2	588	59	27.6	43.9
2	10471.2	137	177.8	135	16.99

3	9142	155	68.6	49.8	184.8
4	7742.2	155	171.7	51.2	13.3
5	16537.6	160	84	89	38.1
6	4062.4	290	133.8	73.4	44.1
7	2155	100	75.8	76.2	195.4
8	574.2	231	69.2	83.4	32.23
9	2169	323	203.6	103.4	11.35
10	6248	182	95.8	163.5	12.8
11	7073.4	100	90.4	51	16.37
12	1348	259	91.4	103	18.52
13	3269.4	502	97.8	91	40.1
14	3094	231	82.4	121.6	19.9
15	256	23	126.6	108.8	290
16	7890	43	105.8	83.4	789.8
17	4104.8	21	70.6	64.6	50.55
18	1879.6	23	115	149.2	172.8
19	4262.4	5	87	142.2	16.06
20	31795	643	121	75.8	16.06

4.3 Data Validity

In order to ensure suitability of data to perform regression analysis, test for normality using the Shapiro Wilk and heteroscedasticity were conducted, and a comparison made with the Kolmogorov-Smirnov statistics. In order to test for Constance of variance for fitting linear regression, Breusch-Pagan test for heteroscedasticity was conducted using the Ahmed Daryanto macro embedded in the SPSS version 20. It was used because of its relative stability.

4.3.1   Normality Test

A tests of normality is a determination of whether data is well modelled and whether the data has a normal distribution. The researcher compared the results of kolmogorov-Sminorv and Shapiro-Wilk normality tests. Shapiro-wilk results of less than 0.05 indicated a normal distribution. Shapiro-Wilktest was preferred over the other tests since through monte carlo simulation, Razaliand Wah (2011) found that it has the best power for a given significance when comparing it with Kolmogorov-Smimov. It is a test of the form. The researcher checked for outliers due to their known effect on multiple linear regression In Table 4.2. Shapiro-wilk test, the p-values were all significant indicating normal distribution of the variables.

Table 4.2: Results of Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistics	Df	Sig.	Statistics	Df	Sig.
MPS	.354	99	.000	.549	99	.000
Av. Profit after tax	.200	99	.044	.869	99	.000
Corporate Citizenship	.425	99	.004	.900	99	.000
Environmental Stewardship	.236	99	.000	.872	99	.000

4.3.2 Test for Heteroscedasticity

This post estimation test confirms the assumption of constancy of variance for fitting a linear regression model in data analysis. To determine that variances of the predictor variables are the same for all the data (Homoscedasticity) as a requirement in a regression model, the study used the Ahmad Daryanto heteroscedasticity SPSS macro embedded in the SPSS version 20 to perform the Breusch-Pagan test for heteroscedasticity. The test in Table 4.3 produced a p-value of 0.081 (hence > tBhan 0.05) meaning that for this study, variance among study variables is uniform. This means that there is homoscedasticity and hence multiple regression model is suitable.

Table 4.3: Breusch-Pagan Test for heteroscedasticity

Variable	Langregian Multiplier	p-value
BP	8.289	0.081
Koenker	1.431	0.839

4.4 Descriptive Statistics

The purpose of the research was to unearth the effect of economic success (measure-profit after tax), product stewardship (measured - expenditure on quality systems and procedures), corporate citizenship (Expenditures on ethical structures, community improvement) and environmental stewardship on market share price (Measured by expenditures on eco-management systems and audits) in the NSE. Table 4.4.presents the mean and stard deviation outcomes.

Table 4.4: Descriptive Statistics for the Variables

Item	Mean	Standards deviation
Economic Success	7086.87	1688.42

Product Stewardship	208.55	41.44
Corporate Citizenship	106.36	8.83
Environmental stewardship	92.16	8.14
MPS	107.16	40.34

For economic sustainability effect, the researcher used diagrammatic trend analysis to study the trends of the movement of profitability and the movement in MPS in order to determine relationship. The results presented on Table 4.4 above revealed a mean of 7086.87 with standard deviation of 1688.42. Product stewardship was measured by expenditure on quality systems and procedures Descriptive analysis was done using diagrammatic trend analysis on the movement of profitability with adoption of quality systems and change in MPS year by year for product stewardship. The results shows mean of 208.55 and SD of 4.44. These figures are shown in Table 4.4.

The third variable corporate citizenship was measured by the company's expenditures on ethical structures, community improvement. The researcher used percentages and the mean which was calculated and presented to enable meaningful description of study variable. The data returned a mean of 106.36 and SD 8.83 as presented in Table 4.4 above. On the other hand environmental stewardship was measured by expenditures on eco-management systems and audits, percentages and the mean were also calculated and presented. This also enabled simpler understanding and interpretation of data. A mean of 92.16 and SD 8.14 was recorded. The data is presented in Table 4.4 above. The independent variable, Market Price per Share was measured by use of total asset base of participating companies. Descriptive analysis was done using diagrammatic trend analysis on the movement of assets and change MPS year. The results shows mean of 107.16 and SD of 40.34

4.5 Correlation Analysis

The interactions of the independent variables and the association between independent and dependent variable was determined as presented in a correlation matrix in Table 4.5 below. A correlation matrix shows the interconnections between the studied variables. From a correlation matrix, coefficients of relationship between the variables are represented in the same series of rows and columns. Presented in the Table, R

represents Pearson's correlation and P is level of significance at 2-tailed test and n is the number of cases.

Table 4.5 Pearson's Correlation Matrix

		MPS	E.S	P.S	C.C	Env.Ste.
Market Price Per Share	P Correlation	1	.096	.158	.147	.163
	Sig. (2 tailed)		.000	.000	.000	.000
Av. Profit after Tax	P Correlation	.096	1	.412	.002	.233
	Sig. (2 tailed)	.000		.000	.000	.000
Product Stewardship	P Correlation	.158	.412	1	.131	.282
	Sig. (2 tailed)	.000	.000		.000	.000
Corporate citizenship	P Correlation	.147	.002	.131	1	.215
	Sig. (2 tailed)	.000	.000	.000		.000
Environmental Stewardship	P Correlation	.163	.233	.282	.215	1
	Sig. (2-tailed)	.000	.000	.000	.000	

**.Correlation significance levels 0.01 level (2-tailed).

N=100

4.6 Regression Analysis

For statistical modeling facilitatation, average scores/ figures of the data was obtained from the 20 firms under study for all the variables including the control variable for five year period, giving total observations of 100.

4.7 Overall Regression Model of Variable

The results of multiple regression analysis testing the effect of the control variable was carried out. Tables 4.6, 4.7 and 4.8 highlights statistical findings of the multiple regression between all variables and the control variable, the firm size. Model 1 in Table 4.6 indicates that adjusted R^2=0.478, meaning 47.8% of variance in MPS was explained

by the economic success, product stewardship, corporate citizenship and environmental stewardship.

Table 4.6: Model Summary of Variables

Model	R	R^2	Adjusted R	Standard Error of the Estimate
1	.672[a]	.452	.478	.569

As the overall significant level is 0.000 (P< 0.05), the control variable significantly reduces the effects of the predictor variables under the study and the MPS of listed firms in the NSE. The overall model was expressed as, $Y = 0.804 + \{0.174X_1 * Z\} + \{0.107X_2 * Z\} + \{0.127X_3 * Z\} + \{0.152X_4 * Z\} + \varepsilon$, meaning: when the control variable is not controlled or factored in the model, a unit change in economic success, product stewardship, corporate citizenship and environmental stewardship will increase the market price per share by 0.174, 0.107, 0.127 and 0.152 times respectively.

Table 4.7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.472	4	3.912	45.515	.000b
	Residual	12.806	95	.086		
	Total	36.278	99			

The overall model was expressed as:

$,Y = 0.804 + 0.174X_1 + 0.107X_2 + 0.127X_3 + 0.152X_4 + \varepsilon$, meaning: when the control variable is not controlled or factored in the model, a change in economic success by one unit, MPS increases by 0.174 times, when, product stewardship changes by one unit, MPS changes by 0.107 times, when corporate citizenship change by one unit, MPS change by 0.127 times and a unit change in environmental stewardship results into MPS changing by 0.152 times.

Table 4.8: Model Coefficient

Model				
	Standardized Coefficients	Unstandardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	.804	.171		4.695	.000
	Econ Success	.174	.061	.222	2.834	.005
	Prod Stew	.107	.059	.126	1.823	.004
	Corp Ct	.127	.059	.160	2.166	.032
	Env Stew	.152	.075	.197	2.032	.044

4.8 Discussion of Findings

Study findings were shown using descriptive and inferential statistics. The descriptive statistics were presented in terms means and standard deviations. The results shows means and standard deviation of respective variables as follows: Economic Success (Mean: 7086.87, SD: 1688.42), Product Stewardship (Mean: 208.55, SD: 41.44), Corporate Citizenship (Mean: 106.36 ,SD: 8.83), Environmental stewardship (Mean: 92.16, SD: 8.14) and MPS   (Mean: 107.16, SD: 40.34). For regression analysis, the R square adjusted was 0.478, with ANOVA table showing F value of 45.515 and coefficient table producing values given in the regression model.

These findings corroborate the works of Dam and Petkova (2014), Camilleri (2017) and Narsa (2017). In different studies of the firms listed on the NYSE and Indonesian stock exchange, they found that engagement in social policies that encourage collaboration, clear communication of goals and expectations for stakeholders, corporate social consciousness and compliance to tax requirements grows good image, reputation and positive social standing of a company. Long term investors are therefore able to pay premium prices and valuation for such companies.

The findings are also in consonance with Salehi *et al.* (2018) that is, the social objectives espoused by different initiatives including engaging stakeholders for general good, collaboration, solving environmental challenges and sharing value with the community are imperative for achievement of a firm's economic value objective. The results of the preceding research empasises the benefits that lies with the use of responsible and ethical business practices while dealing with stakeholders. Lys *et al.* (2015)on the other hand prostulates that CSR expenditures, which is voluntary, does not contribute to increased future economic performance, including enhanced market share prices. Nderi (2016) studied the association CSR had with prices of shares at the

NSE. The researcher studied all 64 firms listed on the bourse; the outcome showed a positive link between CSR total overheads and shares of listed firms.

The findings agree with those of Mutwiri (2011) and Ratemo (2018). Mutwiri (2011) used a descriptive research approach to evaluate the effects of eco-management systems and audit programs on stock prices of non-finance institutions at the NSE from 2010-2016. The author analysed secondary data for financial returns extracted from the websites of the firms in the same period of listing. The study showed that increase in activities like eco-training, eco-audit systems, life-cycle management and initiation of closed loop system were followed by increased share prices. Ratemo (2018) investigated the impact of a firm's social responsibility practices and corporate citizenship on share price in Kenya. The researcher obtained data in 7 firms under study based on five year panel data from 2008-2012. Regression analysis of various macro-economic elements impacting on stock value of the organizations indicated positive influence on share prices at NSE.

The findings also agree with those of Sebastianelli, Tamimi and Lacocca (2015) who considered the impact of ecological practices on the S&P 500 indexed firms in the US. There is a concurrence that Certifications like ISO 14000 confers on firm's capabilities and competences such as environmental management and audit systems that are key to eco-management. Firms that are known to conserve the environment have operational efficiency and acceptance that goes in increasing share market price. These results agrees with Wiengerten and Longoni (2015); Weingerten et al. (2014); Gimenez et al. (2012), all concur that firms size would affect internalization of corporate sustainability which in turn will positively influence MPS, collaboratively and in a coordinated way design resources, pursue product or process certification and pursue common organizational culture types rich in sustainability.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Highlighted is the summary, conclusions, recommendations, contribution to knowledge and the implications of the study findings on management and practice. Finally, gaps for further future studies are suggested.

5.2 Summary

The principal drive of the study was to determine the influence of corporate sustainability espoused by economic success, product stewardship, corporate citizenship and environmental stewardship on the market share price among listed firms. Audited financial statements, Published annual reports, , reports filed by the companies with the NSE and published on the NSE website acted as the source of secondary data. The study used descriptive study as the research design and covered the period from 2013 to 2017. A census study was done on the 20 constituent of the 20 share index of the Nairobi stock Exchange.

The descriptive statistics were given in form of means and the standard deviations. The results shows means and standard deviation of respective variables as follows: Economic Success (Mean: 7086.87, SD: 1688.42), Product Stewardship (Mean: 208.55, SD: 41.44), Corporate Citizenship (Mean: 106.36,SD: 8.83), Environmental stewardship (Mean: 92.16, SD: 8.14) and MPS (Mean: 107.16, SD: 40.34). For regression analysis, the R square adjusted was 0.478, with ANOVA table showing F value of 45.515 and coefficient table producing values given in the regression model.

The overall multiple regression model with the control variable (firm size) produced an adjusted R^2 of 0.478. This implied that all the four variables explained 47.8% on MPS among listed firms on the NSE. This means that control variable had an improvement effect on the relationship between the independent variables (Economic success, product stewardship, corporate citizenship and environmental stewardship) and MPS.

5.3 Conclusion

The purpose of the study was to establish the effect of corporate sustainability and market share price among listed companies on the Nairobi securities exchange. The study used both descriptive and inferential statistics to try to determine the effects of independent variables of economic success, product stewardship, corporate citizenship and environmental stewardship on the market price of shares among listed companies. A regression model was used to fit the relationship between the variables in the study. The study concludes that, there was a positive influence of economic success measured by profit after tax, product stewardship, corporate citizenship and environmental stewardship, of companies listed on the Nairobi securities exchange. Furthermore, the variables are key to efficiency which in turn had a significant positive effect on performance of market share price the listed companies. This implies that the amount of money expended on corporate sustainability projects significantly explain market share price of the listed companies. Businesses ought not to incur high expenditures on corporate sustainability initiatives with the anticipation of enhancing their corporate market share price.

5.4 Recommendations

With growing concerns over limitation of resources, rise in consciousness of stakeholders, global warming, and greenhouse gas emissions has created an urgency for businesses to invest resources in the internalization of corporate sustainability into their strategies and practices as they engage in stock markets has reached its peak. The study therefore recommends that listed companies must consider re-designing, configuring and orienting their key strategies, processes, capabilities, competences and practices and activities as a way of adding sustainability into their corporate strategy and operations and to engender positive impact on market share price. These will be sure ways of positively managing customers and suppliers expectations while also managing the long-term impact tha come with business operations to the community and environment. A supply chains relational orientation geared towards long term collaborative partnership as a capability is recommended towards the broader implementation and development of sustainability, since the supply chain integration considers the product from initial processing of raw materials to delivery to the customer.

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The study was able to reveal the value of various certification standards in enforcing various management systems and audits that are key in implementation of economic, environmental and social sustainability. The study recommends that listed companies must improve their economic, environmental and social impact and value through measures such as implementation of ISO 9001 for economic sustainability, ISO 14001 for environmental sustainability and OHSAS 18001 and SA8000 for social sustainability. ISO 14001 will include systems for measuring the amount of carbon emissions that the company emits and create goals to encourage reductions. Standardizations will also help listed companies to be proactive with respect to governmental regulations and other pressures from stakeholders. The basic objective is to gain positive impact on MPS

Among listed companies in the NSE, the conclusions of the study demonstrates that compliance to corporate citizenship and compliance to stakeholder pressure as well as operations based on stakeholder relationships is a feasible sustainability management alternative, especially for logistics service providers with multiple and varied stakeholders. This study recommends that listed companies take time to understand stakeholder requirement and detail the appropriate approaches to corporate citizenship, involvement, leadership and visibility that may serve to make a significant contribution towards achieving green and social objectives.

5.5 Suggestions for Further Research

The present study was carried in the stock exchange market in Kenya, with focus on the firms listed on the NSE, drawing from the 20 share indexed companies. It is suggested that a more elaborate study embracing all companies listed in the securities exchange. Other than the affore-mentioned factors, the study recommends further studies focussing on factors like firm characteristics, management intentions, perceived value of sustainability and organizational readiness in manufacturing and government sectors be undertaken to establish their effect on corporate sustainability implementation and market share prices of listed companies.

Even though the government through various agencies set regulations regarding economic, social and environmental performance and operations, there is no empirical

evidence that public sector organizations comply with the same regulations. The findings presented here, can also be tested in the public sector, where due to the nature of objectives, sustainability issues are still not a priority. For criticalities of implementation, a thorough examination has only been observed for some of the identified macro-areas, such as reverse logistics (e.g. Wu and Dunn, 1995), whereas additional research should be recommended for the others. Focusing on impacts deriving from adoption, they have been mainly addressed from the viewpoint of the shippers and considering the entire supply chain. Evaluation and measurement of environmental performances have only been partially explored and a more holistic perspective is still missing. In recent years many efforts have been made towards the measurement and control of company environmental performances.

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APPENDIX I: Categories oflisted firms at the NSE

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APPENDICES

APPENDIX 1I: Specific Firms Comprising The NSE Share Index

Categories	Number
Agricultural	6
Automobile and Accessories	1
Banking	12
Commercial Services	12
Construction and Allied	5
Energy and Petroleum	5
Insurance	6
Investment	5
Investment services	1
Manufacturing and Allied	9
Telecommunications	1
Real Estate Investment Trust	1
Exchange Traded Trust	1
Total	**65**

Source: CMA (2018)

Categories		Number
Banking	• Kenya Commercial Bank Group	6
	• The Cooperative Bank	
	• Diamond Trust Bank	
	• Barclays Bank	
	• Equity Group Holding	
	• NIC Group	
Commercial Services	Nation Media Group	2
	Scan Group	
Energy and Petroleum	KenolKobil	3
	Kenya Power and lighting	
	Kengen Ltd	
Insurance	Britam Holdings	2
	Kenya ReInsurance Company	
Investment	Centum Investment Company	1
Investment services	Nairobi Securities Exchange	1
Manufacturing and	East Africa Breweries	4
Allied	BAT Kenya Ltd	
	Athi River Mining	
	Bamburi Cement	
Telecommunications	Safaricom	1
Total		**20**

Source: CMA (2018)

APPENDIX III: Raw Data

	year	Economic Success	Expe. Product Ste.	expenditure on corporate citizenship	expenditure on environmental Stewardship	Market price per share
Kenya Commercial Bank	2013	12426	350.9	203	21	47.25
	2014	16840	372.6	10	15	57
	2015	19623	395	29	26	43.75
	2016	19723	395	31	31	28.75
	2017	19704	400	22	45	42.75
Cooperative Bank	2013	9108	200	78	5	17.75
	2014	7462	250	221	109	20
	2015	11705	350	234	205	18
	2016	12676	100	258	122	13.2
	2017	11405	45	98	234	16
Diamond Trust	2013	5230	50	50	23	192
	2014	5708	122.5	79	11	235
	2015	6599	230	105	33	187
	2016	14263	395	79	105	118
	2017	13271	400	30	77	192
Barclays Bank	2013	7623	200	92	70	17.6
	2014	8387	250	70	33	16.6
	2015	8401	350	220	67	13.6
	2016	7399	100	270	54	9.1
	2017	6926	45	205	32	9.6
Equity Bank	2013	13278	50	100	111	30.75

	2014	17151	350.9	48	105	50
	2015	16739	372.6	94	103	40
	2016	16602	395	99	104	30
	2017	18918	395	79	22	39.75
NIC Group	2013	3237	400	90	89	60
	2014	4116	200	100	44	57.5
	2015	4485	250	111	49	43.25
	2016	4330	350	123	98	26
	2017	4144	100	245	87	33.75
Nation Media	2013	2533	45	21	76	314
	2014	2460	250	34	65	263
	2015	2222	350	68	55	191
	2016	2250	100	45	98	93
	2017	1310	45	211	87	116
Scan Group	2013	831	50	22	67	48.25
	2014	625	122.5	43	87	45.75
	2015	478	230	88	98	30
	2016	460	395	90	88	18.15
	2017	477	400	103	77	19
KenolKobil	2013	558	200	113	66	9.45
	2014	1423	250	222	12	8.8
	2015	2479	350	231	112	9.6
	2016	2413	100	241	105	14.9
	2017	3972	45	211	222	14
Kenya Power	2013	4352	50	241	77	14.5
	2014	6456	350.9	105	99	13.35
	2015	7431	372.6	33	155	18.35
	2016	7556	395	44	189	9.85
	2017	5445	395	56	298	7.95
Kengen Ltd	2013	5224	400	79	22	15.15
	2014	2826	395	98	13	10.9
	2015	11517	395	99	45	9.25

	2016	6743	400	89	66	6.55
	2017	9057	200	87	109	6.55
Britam	2013	2315	250	65	177	15.15
	2014	2497	350	43	77	30
	2015	-1009	100	201	98	13
	2016	2410	45	104	65	10
	2017	527	50	44	98	13.35
Kenya Re	2013	2792	122.5	200	77	13.8
	2014	3137	230	22	87	17.2
	2015	3554	395	70	66	21
	2016	3287	400	99	102	22.5
	2017	3577	200	98	123	18.1
Centum	2013	1034	250	88	255	19
	2014	3055	350	65	201	20
	2015	7942	100	55	46	63.5
	2016	1868	45	99	7	63.5
	2017	1571	50	105	99	34.5
NSE	2013	220	260	100	8	21
	2014	320	372.6	160	11	20.5
	2015	305	395	180	3	24.75
	2016	183	395	112	267	14.65
	2017	216	400	21	178	19.7
Breweries	2013	6522	200	221	231	320
	2014	6858	250	11	10	289
	2015	9535	350	33	33	304
	2016	8021	100	64	56	278
	2017	8514	45	200	87	259
BAT	2013	3723	250	43	63	595
	2014	4255	350	56	98	900
	2015	4976	100	67	65	785
	2016	4234	45	89	54	909
	2017	3336	50	98	43	760

Safaricom	2013	1348	122.5	88	86	90
	2014	1493	230	105	101	82.5
	2015	-2890	395	111	123	41.75
	2016	-2800	400	66	235	25.5
	2017	-6549	200	205	201	13
Bamburi	2013	3673	250	99	109	210
	2014	3903	350	90	189	139
	2015	5873	100	55	201	175
	2016	5890	45	88	209	160
	2017	1973	50	103	3	180
Athi River	2013	17539	350.9	103	69	6
	2014	23017	372.6	104	58	12.35
	2015	1627	220	94	120	207
	2016	1540	220	94	121	209