CORPORATE SUSTAINABILITY AND MARKET SHARE PRICE AMONG LISTED COMPANIES IN THE NAIROBI SECURITIES EXCHANGE.

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ABSTRACT

Due to ever diminishing global resource base and the increasing global business competition, the perceived importance of corporate sustainability has been recognised by investors, governmental and non-governmental authorities, the academia and the business practitioners in greater proportion. The investors particularly are concerned with the effect of corporate sustainability on share pricing. The purpose of this research was to establish the impact of corporate sustainability on share pricing at the Nairobi Securities Exchange. The study was guided by these objectives; to determine whether value based performance of an organization influence share prices for the companies listed at the Nairobi Securities Exchange, to establish the influence of corporate social responsibility on prices of shares among listed companies in the Nairobi Securities Exchange, to find out the role of corporate citizenship on prices of shares among listed companies in the Nairobi Securities Exchange and to analyse how environmental stewardship influences the prices of shares among listed companies in the Nairobi Securities Exchange. The study used resource-based theory, stakeholder theory, ecological modernization theory as well as the agency theory. It adopted the descriptive research design with stratified sampling method. Secondary data as well as quantitative data was used to determine the relationship between the indicated variables. Data was analysed using STATA version 12 and data was presented in tables and graphs. The study established that environmental stewardship and value based performance have significant effect on share prices. The study concludes that corporate sustainability has significant effect on share prices. The study recommends that the management of all listed firms in Kenya should consider investing in environmental conservation programs so as to enhance on their share prices. Listed firms need to put in place or improve on their value based performance practices for improvement in share prices.

Keywords: Corporate Sustainability, Market Share Price, Value Based Performance, Corporate Citizenship and Environmental Stewardship

INTRODUCTION

Market share price (MSP) is one of the pertinent issues in corporate finance that finance managers leverage to demonstrate their ability of maximizing the wealth of their shareholders (Swarnapali, 2018). Shareholders are more interested in MPS because it represents the real value their obtain from their share of their investment in the firm. However, in order to maximize their MPS, firms are constantly under pressure to implement practices that seek to enhance their corporate sustainability (Alshehhi, Nobanee & Khare, 2018).

Corporate sustainability has received considerable attention through increased concern and attention on the need to realize the global Sustainable Development Goals (SDGs). The need to remain ethical and environmental conscious while generating adequate profits that can maximize the MPS of the shareholders has forced firms to embrace value based performance, corporate citizenship as well as environmental stewardship as critical components of their overall corporate sustainability practices. Most blue chip firms in developed countries like the United States (US) have learnt and appreciated the need to adopt and incorporate these corporate sustainability aspects even in their reporting to the general public (Laskar, 2018).

Environmental sustainability is a term used to explain a firm's strategic abilities, the set policies, actions that are taken and the formed associations in response to concerns related to the environment (Maack, 2012). These include management of the environment and its structures, tools for analyzing the life cycle, recycle and disassembly designs, stewardship towards its products and green purchasing (Maack, 2012; Ashby et al., 2012). Maack (2012) configures it to incorporate eco-efficiency and environmental stewardship measured in terms of resource efficiency, product stewardship, life cycle management, product to service, clean air, water and land. In addition, Maack (2012) lists emissions reduction, zero waste, reduced spills and releases and biodiversity. Environmental sustainability should include embodiment of consistency, supply chain certification standards and the practices that best suit management of the supply chain including global facility carbon calculator (GFCC) and global transport carbon calculator (GTCC) (Kuehne+ Nagel, 2015; GRI, 2014).

Corporate social responsibility (CSR) represents the way organizations meet the societal needs as they strive toward meeting their economic goals. The society indicates the environment or areas in which they operate from (Defee et al., 2010). Supply chain management (SCM) needs a better strategy in elevating CSR for the purpose of facilitating smooth flow of activities across marketing, purchasing, distribution and manufacturing functions in a firm. Handfield et al. (2005) indicated that the organizations that have an official system of monitoring and reporting CSR in their operations would enjoy advantages related to performance and higher levels of dedication from both internal and external stakeholders.

The relationships between corporate sustainability and share pricing among listed companies is a subject of recent discourse among academics and practitioners. Evidence from the American financial market with the Enron and Lehman Brothers cases as well as the recent cases of Volkswagen and Nissan Auto emissions-cheating software suffices (EPA, 2017; Forbes, 2018). TrueValue Labs (2009; 2018) shows that firms with strong economic, environmental, social and governance performance index have registered positive public sentiments from NGOs, think tanks, industry experts and media sources, in turn, this positive public sentiments on sustainability initiatives have positively improved demand for their stocks resulting in to higher share pricing (Serafeim, 2018).

Trading in stocks and shares in Kenya started in the 1920s when voluntary association of stockbrokers regularly met at the Stanley's hotel. This was an informal market which did not have any rules or regulations, only gentleman's agreement in closure and settlement of business dealings. The returns to stockbrokers were standard commission charged upon obligatory honour and settlement of basic costs. The Nairobi Securities Exchange as it is today was formally established in 1954 and registered under the Societies Act. As a member of the African Stock Exchanges Associations (ASEA), it comes fourth among the big securities exchange by the volumes that are traded and fifth considering the capitalization of the market.

Currently the NSE has a total of 64 firms listed and divided into thirteen categories, namely: agricultural, automobile and accessories, banking, commercial services, construction and allied, energy and petroleum, insurance, investment, investment services, manufacturing and allied, telecommunications, real estate investment trusts and exchange traded trusts. The stock exchange has four indices used to determine stock performance. The NSE all-share Index (NASI); this is the index that is weighted for all the companies listed in the market, the NSE 20-share Index which is the weighted index for the 20 blue chip companies using market capitalization, shares traded, number of deals and turnover as criteria for inclusion in the index; the Financial Times Stock Exchange (FTSE) NSE Kenya 25 Index representing the performance of the 25 most liquid stock trading on the NSE and the FTSE NSE Kenya 15 representing the performance of the largest 15 stock trading on the NSE, ranked by full market capitalization, (NSE, 2016).

Statement of the Problem

Implementation of corporate sustainability confers on firms' immense benefits including reduced costs, reduced waste generation and related costs, energy conservation, improved labour productivity, improving corporate image due to positive public sentiments and improved productivity (Porter & Van de Linde, 1995; Steiner, 2012). Companies with high corporate social responsibility and eco ratings have better access to finance, and that over time, investment analysts' recommendations are increasingly positive (Ioannou & Serafeim, 2010; Cheng et al., 2014). The market has interest in companies that integrate their sustainability agenda in to strategy and operations (Ioannou & Serafeim, 2010; Eccles et al., 2011; Eccles et al., 2012).

Common stock market price determinants among listed companies has shifted largely from internal financial determinants such as earnings per share (EPS), dividend per share (DPS) and book value per share (BVPS) to include an assessment of a firms commitment to value based performance, environmental sustainability and good social stewardship (Dam & Petkova, 2014). Various studies have been done on the twin concepts of corporate sustainability and share pricing. Obeidat (2009) explored the impact of internal financial determinants on the common stock market prices of 38 companies listed on the Abu Dhabi securities exchange for a period of 5 years from 2002-2006. Sebastianelli et al. (2015) examined how improved quality environmental management impact the value of shareholder wealth for firms listed in the US and which were certified with ISO 14000 certification. Using a sample of UK FTSE, 350 firms listed continuously from 2007-2011, Al-Shaer (2018) investigated the impact of quality and quantity of corporate environmental disclosures on investment recommendations. Nderi (2016) explored the relationship between corporate social responsibility and the value of firms listed at the Nairobi Securities Exchange. He concluded that involvement in corporate social responsibilities (CSR) enhances the value of the firm listed at NSE. Gichohi (2014) examined effects of corporate social responsibility on financial performance of firms listed in the Nairobi securities exchange using multiple regression analysis model.

It is evident that most of the studies done on corporate sustainability focus on European, USA and the Asian Countries and that little attention has been given to the relationship between corporate sustainability practices and initiatives and share prices of listed companies in Kenya. These studies are mainly concentrating on environmental sustainability practices and initiatives, failing to comprehensively address the tripods of economic, socio-governance and environmental issues of corporate sustainability and how they influence share pricing on listed companies. In Kenya, previous studies have largely dealt with shares pricing, corporate social responsibility and corporate performance in a disintegrated way and have little dealt with the relationship between the integrated dimensions of economic, socio-governance and environmental sustainability and share pricing of companies listed in the Nairobi securities exchange. Further, studies on companies listed within the last ten years are not there locally. This therefore gives the research gap hence the need for this study. This study sought to fill this research gap as it undertook to reveal the relationships between corporate sustainability practices and share pricing of companies listed on the Nairobi Securities Exchange.

Objectives

i. To determine whether value based performance of a firm influence prices of shares among listed companies in the Nairobi Securities Exchange
ii. To find out the role of corporate citizenship on prices of shares among listed companies in the Nairobi Securities Exchange
iii. To analyse how environmental stewardship influences the prices of shares among listed companies in the Nairobi Securities Exchange

LITERATURE REVIEW

Theoretical Review

The study finds anchorage of various theories to the variables and concepts used. Specifically, the Resource Based Theory and the Stakeholder Theory,

Resource Based Theory (RBT)

Resource based Theory traces its origin in the 20th century from Ricardian and Penrosian economic theories, in regards to which firms sustainable economic supernormal earnings are only attributable to possession of superior resources, competences, capabilities and processes (Peters, Hofstetter & Hoffmann, 2011) and those resources are guarded by a form of segregating process inhibiting their dispersal in the industry. In modern times, it is traced to the works of Wernerfelt (1984) and subsequently improved on by (Barney, 1991) in his article "Firm Resources and Sustained Competitive Advantage" (Versei et al., 2014).

This gives a background for understanding how a firm's corporate sustainability initiatives are minted as of great value and precious, inimitable, cannot be substituted, tangible or intangible resources can be applied to achieve higher long term share prices among listed companies (Connelly, Ketchen & Slater, 2011). Improved market share, higher profitability and superior firm resources and strategies enable a firm to create higher value compared to the use of same resources as the competitors (Barney, 1991). This improves public and investor sentiments resulting to high demand for an organization's shares in the securities market with the consequence of higher share prices (Serafeim, 2018)

Among listed firms in the securities exchange, key resource aspects are reviewed by Barney and Clark, (2007) as the assets, abilities, the attributes of the firm, organizational processes, data and the knowledge that a firm owns. All these qualify an organization to create and execute plans which help in improving planning and effectiveness. It is worth of note that organizational abilities are a composite of skills and therefore corporate edification implemented through organizational procedures should ensure more excellent coordination of the organization's functions (Day, 1994). This study used RBT as an overarching theory to support the variable value based performance. In this regard RBT considers the ability of firms resource and strategy architecture or orientation and design in enhancing competence at the organizational level, risk handling efficiency, income, image, honesty, reputation and environmental resilience, all of which resourceful and further improve the marketability and attractiveness of a firm's shares (Sarkis et al., 2011).

Ecological Modernization Theory

This theory was spearheaded by Huber, Janicke and Simonis in the 1980s. Its proponents suggested that the economy could continue to grow that through human creativity while ensuring protection of the environmental. This can easily be realized through technical innovation of resources that is efficient and permits greater and increased productivity to take place without the need for extra raw material and energy usage. This delinks economic growth and environmental degradation. This model has had considerable developments and it's currently considered the major theory in the socio-environmental relations and studies. Its major premise is the ecological interest theme, design and discussions in practices that entail economies, social practices and institutional developments.

Within EMT, formulation of the green ideas through the emergence of green parties, green policies and green rationality in divergent business realms is the center in investment and share pricing decisions (Spaargaren & Mol, 2010). In stock and share investment area, a key aspects and concepts have been established by practitioners due to pressure from stakeholders or as measures to conform to the current trends.

Some profound institutional changes and guiding principles that influence share pricing and investor sentiments are easily discerned and this runs since the late 1980s onwards. The changes and indicators that investors keenly look out for in order to determine the valuation of firms include systems for environmental management, the introduction of an economic valuation of environmental goods through eco-taxes, the emergence of environment-inspired liability and insurance and the articulation of environmental considerations in economic supply and demand (Fecourt & Li, 2013; Hellstrom & Nilsson, 2011 & McKinnon, 2010). The theory supports the variable environmental stewardship by elaborating on the way investor focus and dynamics lend itself to use environmental interests and considerations in influencing share pricing.

Empirical Review

Value Based Performance and Share Prices

Meditinos, Sevic and Theriou (2009) sought to model the conservative methods of accounting and the modern measures that are value based to determine stock prices in the Athens Stock Exchange (ASE). Using a formal valuation approach, the study collected data from 977 companies that are listed in the Athens Stock Exchange (ASE) for a ten-year period from 1992-2001. The analysis was done using the incremental information content test. The results of the study revealed that any signal on the improvement in the combination of Economic value added and earnings per share had stronger power in explaining the stock market prices of listed companies in the stock exchange in determining the importance of shareholder added value to share pricing. However, the study was conducted focusing on Athens Stock Exchange and not NSE.

Mundia (2016) sought to examine the relationship between free cash-flow and stock prices of the non-financial firms listed in the Nairobi securities exchange. The objective of the study was to investigate the the relationship between free cash flows and stock prices. A sample of 42 companies listed at the NSE from 2011-2015 was used. Data was obtained from annual statements of non-financial listed firms, journal articles, publications and reports published by the institution under study (Nairobi Security Exchange). Multiple linear regression was used to identify the existence of the relationship. The regression model portrayed that free cash flow had a strong positive effect on stock prices. The study was merely limited to non-financial firms listed and not the entire listed firms at NSE.

Wanjiku (2012) in a bid to establish the influence of profitability in listing decisions on the NSE. She did a cross-sectional study with 10 companies listed on the NSE from 2000-2009 as samples. Secondary data for the study was obtained from the NSE published documents, journals and audited financials for the companies. Multiple linear regression was used to test the relationship between the variables and the results indicated that profitability was closely related with prices of shares for companies listed at the securities exchange. This study focused on listing decissons and not MPS as the dependent variable thus creating conceptual gap.

Dyakove (2014) while doing an investigation on the African stock markets, how efficient, effective and predictable it is. The South African journal shares sound information on a quote driven market individual dealers provide liquidity for investors by buying and selling the shares of stock themselves. In this system there will be numerous dealers who will compete against each other to provide the highest bid prices when you are selling and the lowest asking price when you are buying stock, where the difference is the profit margin. Such a market is decentralized and the players themselves compete amongst themselves to give the market the best share prices that buyers can purchase and the holders of the shares are willing to sell.

Corporate Social Responsibility and Share Prices

Narsa (2017) examined the relationship between corporate social responsibility disclosure and share prices having customer loyalty as the intervening variable for companies in the Indonesian mining industry. Primary data was obtained through a census carried out in the companies that are in the mining sector listed in the Indonesia stock exchange in the years 2008-2014. Secondary data was retrieved from both sales and annual reports from their websites. The researcher used multiple linear regression analysis to do the study analysis and the results proved an association between corporate social responsibility disclosure and share prices of companies listed in the stock exchange. There was a revelation that customer loyalty mediated the relationship between CSR disclosure and share price variations. The study covered an additional intervening variable being customer loyalty while the dependent and independent variables were adopted in the present investigation.

Salehi, DashtBayaz and Khorashadizadeh (2018) investigated the relationship between corporate social responsibility expenditures and share prices for listed companies in Iran. 159 companies were used as a sample to examine the hypotheses using panel data analysis for years 2010–2015. The objective of the study was to determine the effect of corporate social responsibility on share prices for the listed companies in Iraq. The results suggested that investment in CSR initiatives has a positive and significant relationship with performance of firm share price as indicated by changes in market price per share. This study was conducted in Iran and not ion Kenya.

Hewage (2015) sought to examine the relationship between CSR and share prices of listed companies in Sri Lanka. The objective was to examine how Corporate Social Responsibility (CSR) affects the share prices of listed companies in Sri Lanka. The researcher used a sample of thirty listed companies that disclosed their corporate social responsibilities activities from 2010 to 2014. Weighted ranking method was used to measure the CSR activities while average share price was used to determine the share price. Regression analysis was used for checking the relationship between corporate social responsibility and share price. The findings revealed that there is a positive relationship between share price and CSR activities. The study was conducted withn the context of Sri Lanka and not in Kenya.

Olaoye and Oluwadare (2018) conducted a study on Corporate Social Responsibility and Stock Price Market of Selected Listed Companies in Nigeria. The findings of the study reveal that the social responsibility of a firm is not correlated to stock price market. The findings also revealed that corporate social responsibility could not be influenced by stock price market. Business, managers and stakeholders have been emphasizing on the need of corporate social responsibility so as to positively impact their business activities on the environment and society by disclosing information on how these impacts are being managed. Business organizations should establish a good foundation that will help in incorporating good values of corporate social responsibility to help in the achievement of the organizational set goals and objectives hence attaining a strong competitive advantage. This study was however conducted in Nigeria and not in Kenya.

Corporate Citizenship and share prices

Camilleri (2017) in a cross-sectional survey of 159 firms listed in the NYSE from 2005-2013 sought to outline the effects of a firm's corporate citizenship and social responsibility policies on the movement of share prices of American firms. The study involved thorough analysis of corporate citizenship policies in these firms. The result showed that strong corporate citizenship and sound environmental practices based on requisite policies are connected to developments in economic added value and productivity, efficient operations, high quality, innovation and competitiveness. These findings concurs with the results and conclusions of Costin (2017) that improvements in economic value added, productivity, operational efficiency and innovation drives investment recommendations and improves share prices among listed companies.

Lauriano, Spitzeck and Dutra-Bueno (2014) aimed at presenting the status of corporate citizenship and its effect on prices of shares for the listed firms in the B3 stock exchange. The results of a survey of 381 Brazilian companies listed in the B3 were used for analysing the state of corporate citizenship in Brazil. The survey was constructed using the methodology developed by Mirvis & Googins on measuring the stage of corporate citizenship. The results indicated that Brazilian companies have a high level of understanding of corporate citizenship and the plan is to incorporate citizenship into their business. It was also established that corporate citizenship has influence on share price performance among the firms that are listed in the stock exchange. In conclusion of the study, it was clear that Brazilian companies are advanced in the concept but less developed in the practice of corporate citizenship.

Evans and Davis (2014) investigated on corporate citizenship and the employee. The results indicate that corporate citizenship directly influences organizational identification, which in turn affects the behavioral outcomes of employees. Organizations that are good citizens allow employees to care for each other's well-being, people in their neighborhoods, and the entire planet. Employees don't have to wait until they get home to look after people, instead they can be more than just a profit-making machine and actually act as their true self while also making money for the company.

Environmental Stewardship and share prices

Dam and Petkova (2014) sought to discuss whether commitment to environmental supply chain sustainability is punishable or rewarded by financial markets and whether the prices for stocks differ based on such commitments. 66 multinational companies that were committed to the environmental supply chain sustainability programs (ESCSP) were used as samples for the study. Heckman modelling was used in the study. The study found that most of the firms implemented programs that support sustainability, participated in industry exchange consortium and outsourcing announcements. The results of the analysis indicated that in general, a negative stock price reaction that is marginally significant to the participation announcement in the ESCSP existed (i.e. -0.8 percent, $p<0.10$). If there is correction for the bias in the industry, it is expected that the negative reaction on the prices of stocks would be highly pronounced (i.e. -3.2 percent, $p<0.05$). While this study adopted Heckman modelling, panel data was adopted in the present study.

Sebastianelli, Tamimi and Lacocca (2015) sought to develop a conceptual model to demonstrate the linkage between improved environmental performance and increased share prices of public traded corporations. The study evaluated the longer term impact of ISO 14000 on stock market prices reactions. It used a portfolio of firms certified for ISO 14000 and which have been listed from October 1996 through April 2011. Descriptive research design was employed in the study and the findings showed that the ISO 14000 portfolio, socially responsible and other green fund programs lead to improved stock market prices in the development of an initial investment over a period of time. The study focused on share prices and not specifically MPS as the dependent variable.

Mutwiri (2011) investigated the effect of environmental management programmes and audit systems on share prices of nonfinancial firms quoted on the Nairobi securities exchange. A descriptive research design was used targeting secondary data collected from NSE for all the non-financial trading companies listed in NSE, which informed the research. This study found that different environmental management systems affect the share prices of non-financial firms quoted in NSE. The study recommended that there is need for diligence in initiating environmental sustainability among the sector players in a bid to ensure that there is inclusivity of the stock market stakeholders. The study covered share prices as the dependent variable and not specifically MPS.

Ender and Brinckmann (2019) on the impact of CSR-Relevant News on stock prices of companies listed in the Austrian Traded Index (ATX). The enterprise value of the firm is seen as the shareholder value as based by the CSR –relevant news, noting that the CSR –relevant news viewed in the financial portal gave statistically significant values that is returns were as well abnormal and gave also an average of accumulated abnormal returns from the shares over a short period of time. As such the findings of the study shared that CSR –Relevant news positively and significantly impacted the stock prices and ultimately the shareholder value. The study was conducted in Austrian and not ion Kenya.

Serafeim (2018) investigated on public sentiment and corporate sustainability and price. The study noted that corporate sustainability is a basis of scores of performance retrieved from the environmental, social and governance data from a single individual firm. The study shared that the value of premiums paid to a company whose corporate sustainability is very strong, the premiums are high which affects public opinion and results in share price increase. And when the public opinion is low the share price is low due to low amounts of paid premiums which is a factor of corporate sustainability. The study failed to cover MPS as the dependent variable.

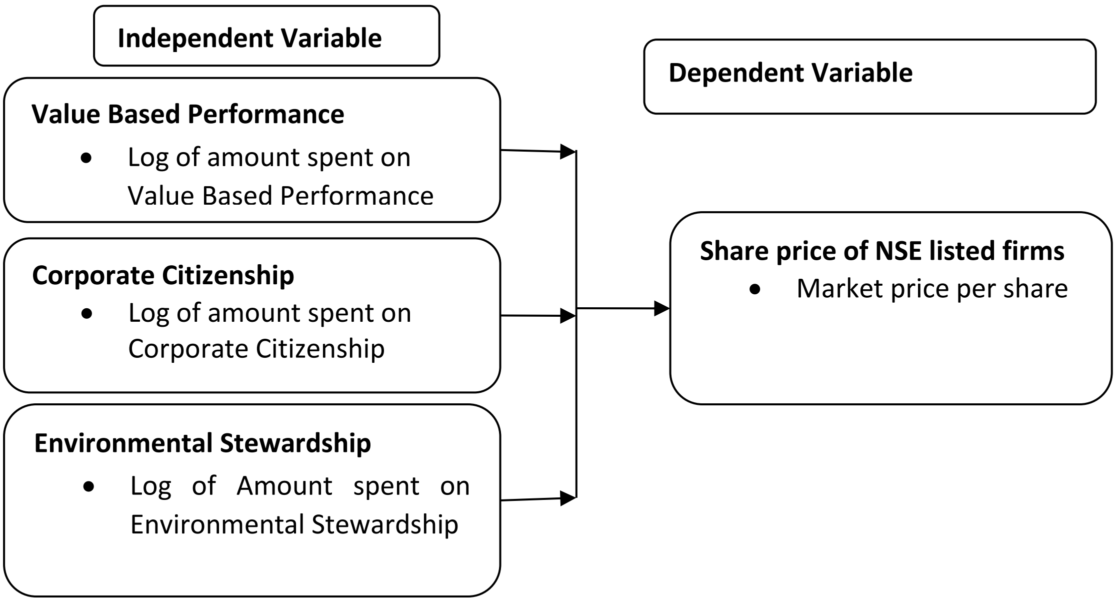
Share Prices

Obeidat (2009) conducted a study to investigate internal financial determinants of common stock market prices in the Abu Dhabi Securities Market using secondary retrieved from financial statements of 60 firms listed in the Abu Dhabi Securities Market. Ordinary Least Square was used for purpose of data analysis. EPS, Book Value of Equity per Share and dividend cover were used as the proxies in the study. The result revealed that EPS has a positive impact on stock prices. The study covered common stock market prices as the dependent variable while MPS was covered as the dependent variable in the present investigation.

Ratemo (2015) investigated the effects of corporate social responsibility on share price determinants in the NSE in Kenya. The period for the study was five years (2008 – 2012) Regression analysis was used to analyse the data of seven companies in seven sectors at NSE that were sampled. Results showed that there existed no particular model for predicting share prices at the NSE. Only one company, Equity Bank, had a model that could be used in determining share prices based on the variables under study and this could be explained by the fact that the share prices of Equity Bank had a big differential (of Kshs 312.15) with the highest price at Kshs 324.00 and the lowest price at Kshs 11.85 while the share prices of the other companies under study had small differentials with the biggest differential being Kshs 54.25 The study covered share price as the dependent variable and not specifically MPS.

Sebastenialli et al. (2011) undertook to examine the relationships between improved environmental performance and share prices of public traded companies. The focus was on the effect of a portfolio of ISO 14000 environmental management systems and audit. Using correlation and a linear multiple regression model the results revealed that ISO 14000 certification had significant impact on the market price of shares. The study focused on share prices in general and not specifically MPS.

Conceptual Framework



RESEARCH METHODOLOGY

A descriptive survey was used on the quantitative data in the study. The population targeted was all the 64 companies listed in the Nairobi Securities Exchange which falls in the 13 categories of firms listed in the Nairobi securities exchange (CMA, 2019). The unit of analysis was individual listed companies while the unit of observation which defines the independent elements in a population (Nassiuma, 2000) will be the chief operating officers of each of the listed firms. The study used all the 64 listed companies in the stock exchange that covered all the categories. The target population for this study was all the 64 companies listed in the Nairobi securities exchange. This study used secondary data collected on a period from 2014-2018. This period was selected because it was most current and significant developments had taken place like the 2017 General Election that was characterized by a rerun and it was therefore pertinent to cover the time horizon so that such events are incorporated in the analysis.

Quantitative data that was obtained was analyzed using descriptive statistics that are quite important for providing the foundation upon which correlational and experimental studies are founded (Mugenda, 2008). Regression analysis was conducted using STATA version 12 as tool for analysis of study variables. Tables and graphs were used to present the data. The regression model used is as follows;

$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \varepsilon_{it}$.. (i)

Where

Y_{it} will be the market share price

β_0 the value of market share price of a firm when all other factors are held constant

$\beta_i - \beta_4$ the coefficients of variables determining the market share price

X_{1it} - X_{4it} the variables under consideration

ε_i the error term

RESEARCH FINDINGS

The study gathered data on a five-year period (2014-2018) which was on a yearly basis. Secondary data was gathered on Market Share Price (MPS), expenditure on value based performance, corporate citizenship and environmental stewardship. While data on MPS was already standardized, information collected on the independent variables was standardized by taking the natural logarithms of the amount the studied firms spent on these activities. The analysis of the secondary data gathered was conducted using Stata software.

Summary of Descriptive Statistics

The study used means and standard deviations to describe the variables that were covered. The essence of mean was to indicate the average values of the variables that were studied. The findings are documented in Table 1.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ValueBased~e	160	7.211506	1.221415	3.058728	9.921341
CorporateC~p	160	6.879642	.9910024	3.757698	9.509802
Environmen~p	160	5.749498	1.138472	2.506114	8.865418
SharePrice	160	72.64212	96.13509	2.8	484

From the results in Table 1, firms listed at the NSE spend an average of Kshs. 7.2 millions on value based performance, Kshs. 6.8million on corporate citizenship and Kshs. 5.7 million on environmental stewardship. The average Market Price per Share of firms listed at the NSE is at Kshs. 72.6. The interpretation of these values of means is that most firms listed at the NSE spent more in value based performance as compared to corporate citizenship and environmental stewardship. Meditinos (2009) considers this value based performance as a set of economic variables that measures the economic performance of a firm over a period of time.

The values of standard deviation are also indicated in Table 4.1. Form the results, value based performance had the largest value of standard deviation among the independent variables of 1.22 while corporate citizenship had the lowest value of standard deviation being equivalent to less than 1. In corporate finance, standard deviation is an important measure and component of risk. Considering this views, it can therefore be inferred that majority of the studied firms perceived investment in corporate citizenship as less risky compared to investment in value based performance and environmental stewardship. This assertion is supported by a study conducted by Lauriano, Spitzeck and Dutra-Bueno (2014) that aimed at presenting the status of corporate citizenship and its effect on prices of shares for the listed firms in the B3 stock exchange and the results indicated that Brazilian companies have a high level of understanding of corporate citizenship and the plan is to incorporate citizenship into their business. It was also established that corporate citizenship has influence on share price performance among the firms that are listed in the stock exchange.

On the basis of the maximum and minimum values, the study noted that value based performance had the highest maximum value of 9.92 while lowest minimum value was 2.5 being represented by environmental stewardship. These findings are interpreted to imply that listed firms invest differently in corporate sustainability initiatives. At the same time, the highly practiced corporate sustainability practice among majority of the listed firms is value based performance. The finding is echoed by the Generations Investment Management (2017) that as part of corporate sustainability, firms have devoted vast resources in reducing energy consumption, waste and carbon emissions, improving environmental and social conditions of the society.

Trend Analysis

It was important to determine the direct of the movement of the variables of the study across the period of consideration. This was made possible through the use of trend analysis with the help of graphs. The collected data was cleaned by editing and removing inconsistent figures. The average values for each variable was computed in excel and then graphs were generated showing the direction of movement of the variables of the study. The findings are shown in subsequent sections.

Value Based Performance

The first independent objective variable of the study was value based performance and it was operationalized by taking the natural logarithm of the amount the firms had spent on value based performance activities across the 5-year period. The findings of trend analysis are presented in Figure 1.

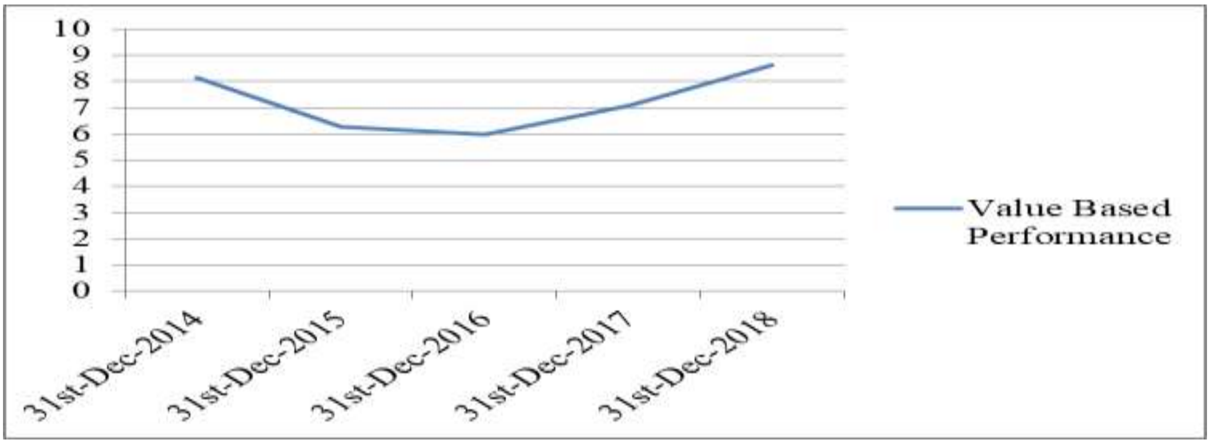


Figure 1: Trend Analysis of Value Based Performance

From Figure 1, there are two significant observations in the pattern of value based performance of the studied firms listed at the Nairobi Securities Exchange (NSE). First, there was a decrease in value based performance from 2014 to around 2016. Secondly, the period from 2016 to date has seen a consistent rise in value based performance among the studied firms listed at the Nairobi Securities Exchanges. The decline in value based performance could be explained by the fact that most of the firms had not realized the value of investing in such activities. But after realizing the value of investing in such activities as value based performance, majority of the firms set aside some budget for the same and thus an increasing trend depicted.

Corporate Citizenship

Corporate citizenship was another independent variable used in the study. It was represented by the use of natural logarithms. The findings of trend analysis are reported in Figure 2.

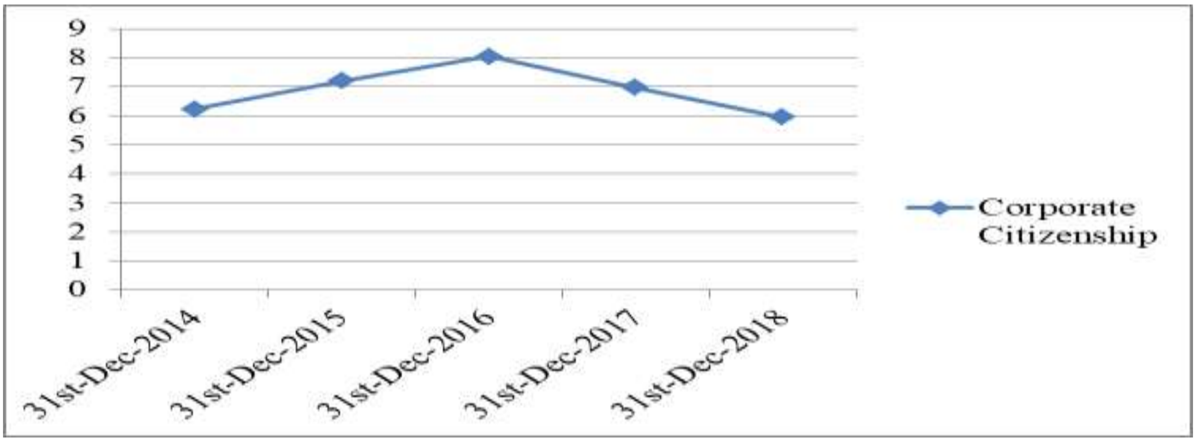


Figure 2: Corporate Citizenship

Figure 2 depicts the movement and trend of corporate citizenship across the studied period. From the results, two remarkable findings can be seen in Figure 2. First, the period of 2014-2016 saw a rise in corporate citizenship. This has however been moving with a decreasing trend from 2016 to date. The increasing trend in corporate citizenship could be attributed to fact that majority of the studied firms had not realized the benefits of value based performances and thus invested heavily corporate citizenship to enhance their share prices.

However, the increased realization of the benefits of value based performance has resulted into a shift in in corporate sustainability practices from corporate citizenship to performance based.

Environmental Stewardship

The other independent variable of the study was environmental stewardship. This is well defined by Sebastianelli (2015) as the assessment of practices of a firm while balancing the needs to preserve the natural resource endowment. It was operationalized by taking the natural logarithm of the amount that the studied firms spent on environmental stewardship activities. The findings of trend analysis are indicated in Figure 3.

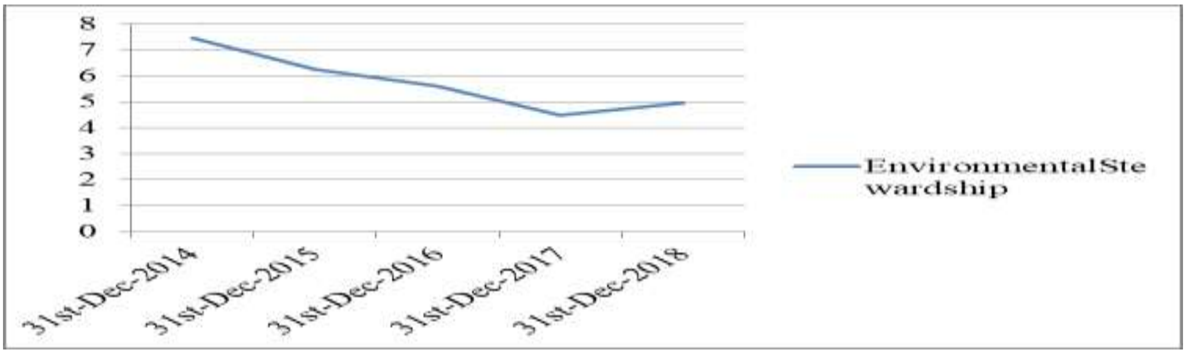


Figure 3: Trend Analysis of Environmental Stewardship

From Figure 3, there has generally been a decrease in the Environmental stewardship among the studied firms over the period of consideration. This trend could be attributed by increased investment in value based performance among these listed firms in effort to enhance their share prices.

Market Share Prices

The market share prices of the listed firms at the NSE were determined on the basis of the published reports. The findings of trend analysis are indicated in Figure 4.

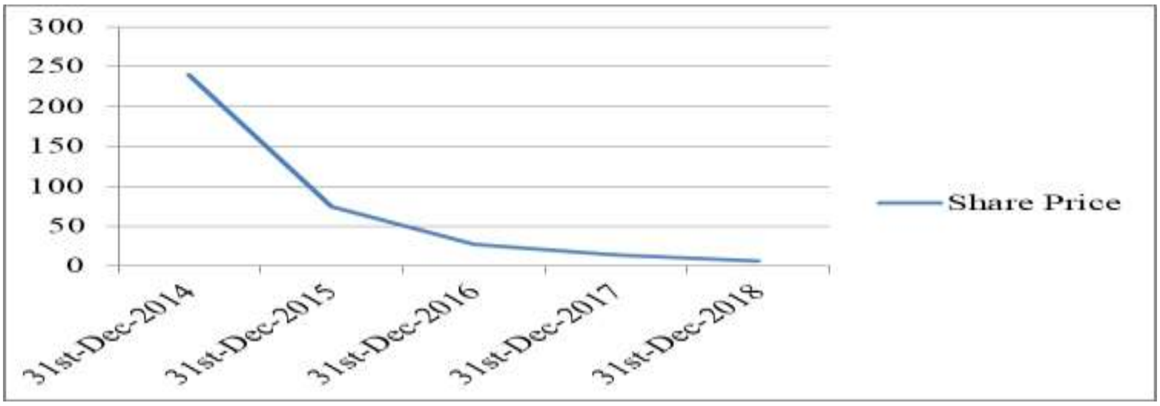


Figure 4.4: Trend Analysis of Market Share Prices

From the results in Figure 4, there has generally been a decline in share prices of the firms listed at the Nairobi Securities Exchange (NSE). These declines in trend in share prices can be attributed to the fact that majority of the listed firms have not appreciated the value environmental stewardship and corporate citizenship. This assertion is supported by TrueValue Labs (2009; 2018) which show that firms with strong economic, environmental, social and governance performance index have registered positive public sentiments from NGOs, think tanks, industry experts and media sources, in turn, this positive public sentiments on sustainability initiatives have positively improved demand for their stocks resulting in to higher share pricing.

Specification Tests

he study used Hausman Test and Breusch-Pagan LM test to determine and specify the specific model to use between Random Effect, Fixed Effect and Pooled Ordinary Least Square (POLS) regression. The findings are indicated in subsequent sections.

Hausman test

In deciding whether to use FE or RE, the study performed Huasman test. The findings are indicated in Table 3.

Table 2: Hausman test

```
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random        Difference          S.E.
-------------+----------------------------------------------------------------
ValueBased~e |    12.04192     12.33183       -.2899102        2.405204
CorporateC~p |   -7.594578     -6.81951       -.7750679          3.1493
Environmen~p |    70.06041      71.0168       -.9563921        1.548544
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =        0.40
                Prob>chi2 =      0.9402
```

If this value is < 0.05; reject Ho – meaning use FE. If it is >0.05 Accept Ho – use RE model From above, Random Effects Model shall be adopted over FE.

Testing for Random Effects Breusch-Pagan LM test

The study conducted Breusch-Pagan LM test to determine and choose whether to use RE or POLS model. The findings are documented below:

```
Breusch and Pagan Lagrangian multiplier test for random effects

        SharePrice[FIRM,t] = Xb + u[FIRM] + e[FIRM,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                SharePr~e |   9241.955       96.13509
                        e |   2193.028       46.82977
                        u |          0              0

        Test:   Var(u) = 0
                             chibar2(01) =     0.00
                          Prob > chibar2 =   1.0000
```

The H0 is that, the variance across groups is zero and thus we prefer POLS chibar2 (01) = 0.00, Prob > chibar2 = 1.0000 we will accept the null hypothesis and thus we will use the POLS model.

POLS Regression Results

The findings of POLS model are indicated below:

```
. reg SharePrice ValueBasedPerformance CorporateCitizenship EnvironmentalStewardship, robust

Linear regression                               Number of obs =       160
                                                F(  3,   156) =     59.29
                                                Prob > F      =    0.0000
                                                R-squared     =    0.8021
                                                Root MSE      =    43.177

------------------------------------------------------------------------------------------
                         |               Robust
              SharePrice |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------------------+----------------------------------------------------------------
   ValueBasedPerformance |   12.33183   3.424295     3.60   0.000     5.567865     19.0958
    CorporateCitizenship |   -6.81951   4.934665    -1.38   0.169    -16.56689    2.927873
EnvironmentalStewardship |    71.0168   5.655412    12.56   0.000     59.84573    82.18787
                   _cons |  -377.6841   65.71242    -5.75   0.000     -507.485   -247.8832
------------------------------------------------------------------------------------------
```

From the results, the value of R square is 0.8021; this means that the overall model of the study was fit and thus suitable for use. The interpretation of this R square can also be that 80.21% change in market share price of listed firms is explained by corporate sustainability. Analysis of Variance was conducted at 5% level of significance with the aim of determining the overall significance of the model. From the results, the value of F calculated is 59.29; this means that the overall regression model of the study was significant.

Based on the findings above, the following equation is formulated:

$$\mathbf{Y_{it} = -377.6841 + 71.0168X_{1it} + 12.33183X_{2it} - 6.81951X_{3it}}$$

Where X_{1it} =environmental stewardship

X_{2it}=Value based performance

X_{3it}= corporate citizenship

Therefore, when all the variables of the study are to be held constant, market share price of listed firms would be at -377.6841. A unit changes in environmental stewardship other factors kept constant would lead to 71.0168 increase in share prices of listed firm. A unit change in value based performance other factors kept constant would result into 12.33183 unit increase in share prices.

At 5% level of significance, the study established that environmental stewardship p<0.05 has significant effect on share prices. According to Njogu, 2017; Gajewski and Gresse (2006) and Serafeim (2018), afirm's share prices is usually highly affected by a myriad of factors including public sentiments, initial public offering pricing decisions and business fundamentals which may be economic or political. Mahmood, Iqbal, Ali and Aamir (2019) conducted a study on the impact of corporate social responsibility awards on share prices. The findings of the study revealed that the overall announcement of CSR awards has an insignificant impact on share price. Zaccheaus, Oluwagbemiga and Olugbenga (2014) investigated on the effects of corporate social responsibility performance (CSR) on stock prices in the listed manufacturing companies in Nigeria. The findings of the study indicate that there is a significant negative correlation between the overall aggregated corporate social responsibility rating score and stock returns. Yoon and Chung (2018) researched on the effects of corporate social responsibility on firm performance. Better implementation of corporate social responsibility can lead to provision of a wide range of opportunities to the firm and also create an added value to the organization. The most expected positive impacts of social responsibility are believed to be improved reputation and enhancement of social community while the decrease of short- run profitability and conflict among social and financial goals are the possible negative outcomes in the view of executives.

The study established that value based performance $p<0.05$ has significant effect on share prices. Wanjiku (2012) indicated that profitability was closely related with prices of shares for companies listed at the securities exchange. Meditinos, Sevic and Theriou (2009) noted that the results of the study revealed that any signal on the improvement in the combination of Economic value added and earnings per share had stronger power in explaining the stock market prices of listed companies in the stock exchange. Mundia (2016) sought to examine the relationship between free cash-flow and stock prices of the non-financial firms listed in the Nairobi securities exchange. It was portrayed that free cash flow had a strong positive effect on stock prices. Wanjiku (2012) indicated that profitability was closely related with prices of shares for companies listed at the securities exchange. Khan, Chouhan, Chandra and Goswami (2014) noted that investment of product and performance is adequately used to and it will affect the performance and shift of the share price in the financial market.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The study was set out to determine the effect of corporate sustainability on share prices of the listed firms. Corporate sustainability was operationalized as under value based performance, corporate citizenship and environmental stewardship. Panel data methodologies were used in achieving these stated objectives. The diagnostic tests were conducted and the resultant values were within established thresholds implying the suitability of data for inferential analysis.

From the performed analysis, the study concludes that value based performance has significant effect on share prices. The relationship between value based performance and share prices was found to be positive. There was a decrease in value based performance from 2014 to around 2016. The period from 2016 to date has seen a consistent rise in value based performance among the studied firms listed at the Nairobi Securities Exchanged.
The study further concludes that environmental stewardship has significant effect on share prices. Environmental stewardship was seen to have a positive effect on share price. There has generally been a decrease in the corporate stewardship among the studied firms over the period of consideration.

Recommendations of the Study

The study noted that majority of the listed firms have not embraced environmental stewardship as one of their corporate sustainability practices. Hence, the study recommends that the management of all listed firms in Kenya should consider investing in environmental conservation programs so as to enhance on their share prices. There is need for adoption of green strategies in all the functions of the listed firms including green procurement and green human resource which are the key components of environmental stewardship.

It was revealed that value based performance has significant effect on share prices. Therefore, the study recommends that listed firms need to put in place or improve on their value based performance practices for improvement in share prices. This would translate to positive value creation on the side of the shareholders.

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