Effect environmental activities on the financial performance of small and medium sized companies in Kenya

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Abstract
This study therefore seeks to analyze the effect of annual cost of environmental activities on the financial performance of small and medium sized enterprises in Kenya. The study is anchored on triple bottom line model and stakeholders’ and corporate social responsibility theories. A descriptive study design has been adopted in order to observe and make inferences on the effect of corporate social activities spending of firm financial performance. The study targets a population of 100 top performing medium sized companies in Kenya because of their rank as best financial performers in the country and their involvement in corporate social responsibility activities. Secondary data was collected by use of data collection form and the data was obtained from annual financial reports for years ending 2014 to 2018. Data was edited, coded and analysed using descriptive and inferential statistics. Results were presented in form of tables and graphs. The study will enable the owners of small and medium sized enterprises to understand the resultant effect of corporate social responsibility on financial performance of small and medium enterprises. It will also aid decision makers to make informed decisions about planning of sustainable objectives and allocation of resources towards achievement of those objectives. Using results from random effects model, revealed annual cost of environmental activities by Small and Medium Sized Enterprises in Kenya can be used to predict the outcome of return on investment as a measure of the SMEs financial performance. When amount spent annually on environmental activities is increased by 1 unit, return on investment also decreases by -5.6109 units with other variables kept constant. This indicated that amount spent annually on environmental activities can be used to predict the SMEs returns on investments, though the relationship is inverse.

Keywords: corporate social responsibility, environment and business, financial performance

1. Introduction
In the contemporary business environment, organisations are expected to take on additional social responsibilities aside from the traditional objective of the firm of maximising profits and shareholders’ wealth. Society and other stakeholders have put immense pressure on businesses to adopt sustainable strategies that look beyond the required economic and legal responsibilities and proactively engage in activities that positively impact the environment, the society and the people around them (Shen, Govindan, & Shankar, 2015) [18]. As a result, firms on a global scale, have widely accommodated Corporate Social Responsibility as their key tool to accomplish sustainability goals due to its capacity to embrace all dimensions of sustainability. However, does investing in CSR really add value to a company? Responses to this question are divided as indicated by previous research. Proponents of CSR suggest that firms that engage proactively in CSR see strategic management of social responsibility issues as a possible source of competitive advantage, warranting discretionary expenditure (Torugsa, O’Donohue, & Becker, 2012) [21]. They also pointed out by fulfilling their social responsibility, companies earn positive publicity that leads to greater social resources and appeal to talent (Roger & Chen-Hsun, 2017) [15] which translates to a change in consumer attitude towards the organisation and the products and services that they produce and market (Mjomba & Rugami, 2017) and competent workforce that effectively enhance operational performance (Roger & Chen-Hsun, 2017). Other benefits include: having an appealing brand image, enhanced customer loyalty, better relations with supply chain partners and improved reputation with shareholders (Zaborek, 2014) [23]. Conversely, opponents are of the view that investment in CSR involves incurring an extra cost which raises operational costs thus reducing profitability and competitiveness. Reich (2007) [14] asserts that instead of incurring costs on CSR projects in the highly competitive environment that hurt financial health, corporations should concentrate on activities that have positive effects and gains. Therefore, there ought to be a positive correlation between CSR activities and the financial performance and outcomes of firms. In Kenya, CSR is often seen as a peripheral to the core business and CSR departments are rare and many operate within marketing, corporate affairs or communications department. In most cases, where there are defined CSR policies, they are often philanthropic projects. Corporate leadership in Kenya tend to focus on launching community projects, supporting CSR policies and ensuring resources for these projects, rather than embedding CSR in business processes (Essays, UK, 2018). It is then not surprising that not many companies in Kenya have adopted sustainability reporting as part of their annual reports. Large Kenyan corporations, especially banks and listed firms, on the contrary, keep financial records concerning expenditure in CSR activities and actually share the same with the public. For instance, the Kenya banking industry spent KES 2.1 billion in CSR activities. The industry has spent
approximately KES 9 billion over four years since 2015 in CSR activities. The banks’ top CSR investment has been on educational activities, followed by health then environmental activities. Other areas that have received social investment from Kenyan banks in the tune of KES 3 billion is sports (Kenya Bankers Association, 2019) [10]. Unlike their large counterparts, small firms are less visible when it comes to social awareness because of their inferior sustainability reporting capabilities, inadequate CSR policies, less public attention, weaker financial position as opposed to large enterprises, among other reasons (Mousiolis, Zaridis, Karamanis, & Rontogianni, 2015) [13]. They however have the same responsibility for the social and environmental impacts of their activities (Cheruiyot & Tarus, 2016) [29]. Cheruiyot & Tarus (2016) [29] posit that in Kenya specifically, small local enterprises have a weak financial base and inadequate CSR policies if none which limits their adoption of CSR strategies. This means that SMEs only engage in sporadic voluntary social and environmental development activities apart from the legal and ethical requirements which is explained by Torugsa, O'Donohue, & Hecker (2012) [31] to be reactive CSR. SMEs still hold a vital role in the Kenyan economy as main source of employment, innovation, competition and entrepreneurial development. SMEs in Kenya, like other developing countries, are huge promoters of grass root economic growth, equitable sustainable development which has largely contributed to poverty reduction. The devolved system of governance promotion of favourable economic environment that has seen growing numbers of SMEs coupled with the sectors aforementioned performance, have done little to remedy the high mortality rate of SMEs due to the challenges they face, among them; inadequate enforcement of sector related regulation, inadequate access to finance, limited access to credit, poor infrastructure (Ong’olo & Awino, 2013).

1.2 Statement of the Problem

Despite the fact that SMEs account for about 98% of businesses worldwide where they contribute to 50-60% of employment and a substantial share to overall economic value, they are seen to practice reactionary CSR limited to non-voluntary regulatory compliance instead of adopting CSR as a strategic tool and increase competitive advantage and thus their financial performance (Torugsa, O’Donohue, & Hecker, 2012) [21]. SMEs typically have limited or no resources to engage proactively in CSR which hinders their opportunity to reap from the benefits (Torugsa, O’Donohue, & Hecker, 2012) [21]. However this should not be the determining factor that bars SME investment in proactive CSR. SMEs have capabilities like shared vision, employee involvement, stakeholder management, innovation, strategic proactivity and capital management which can be instrumental in the integration of CSR issues in their strategic planning (Torugsa, O’Donohue, & Hecker, 2012) [21].

Over the years, research has mainly focused on large companies when studying the role of firms in corporate social responsibility, consequently little attention is given to the role small and medium sized enterprises play (Mousiolis, Zaridis, Karamanis, & Rontogianni, 2015). Thus the link between CSR and SME financial performance is still vague (Mousiolis, Zaridis, Karamanis, & Rontogianni, 2015) especially in developing countries (Zaborek, 2014). More attention should be accorded to understanding the contribution of SMEs in CSR since they are the backbones of most economies in terms of growth and providers of innovative solutions to social problems (Jamali, Lund-Thomsen, & Jeppesen, 2017) [7]. More studies should therefore be conducted to examine the relationship between environmental activities and SME performance and especially so on how SMEs strategically invest in environmental activities to improve their social at the same time financial performance.

2. Literature Review

2.1 Empirical Review

Corporate Environmental Responsibility (CER) applies to the duties of firms to abstain from damaging the natural environment. In the recent past concerns about environmental conservation by businesses arose, stakeholders requiring them to become more environmentally aware and responsible. Overall societal environmental concerns and pressure from governmental environmental policy has caused firms to evaluate and counter the impact of their actions on climate from the greenhouse emissions (Lundgren & Zhou, 2017) [10]. Sindhi & Kumar (2012) [19] posit that with the increased awareness on environmental issues and magnitude of costs associated, it has become imperative for businesses to integrate environmental responsibility actions into their business strategy. Also firms take a proactive role in the protection of environment not out of compliance but voluntarily in the quest to becoming socially aware (Lundgren & Zhou, 2017) [9]. Environmental CSR are actions like recycling, use of clean energy, responsible use of water, pollution control, and waste disposal management, among others, taken to reduce any damaging effects on the environment from business processes. Involvement in Green CSR can be credited for the reduction of business risk, improvement of corporate reputation and provision of opportunities for cost saving.

Empirical evidence on the relationship between CER and CFP is in its infancy at best and research have mixed results (Jo, Kim, Lee, & Park, 2013) [9]. Those who advocate for CER argue that good environmental management strategy can result in good corporate image which leads to increased financial performance (Jo, Kim, Lee, & Park, 2013) [9]. Researchers therefore recommend incorporation of sustainable strategies in conducting their businesses in order to mitigate against the adverse effects on the natural environment (Sindhi & Kumar, 2012) [19].

Jiang, Xue and Xue (2018) [10] used multi-variable regression analysis on data collected from 44 enterprises and found that proactive corporate environmental responsibility (PCER) has a positive effect on corporate financial performance while studying the role of proactive corporate environmental responsibility on corporate financial performance. Observations of end year data were made from 2009 to 2014 in the energy industry classified as coal, mining and washing industry, oil and gas mining industry, ferrous metal mining industry, non-ferrous metal mining industry and electric, heating, natural gas and water production and supply industry, which were represented by the sample data. CFP was measured using ROA and PCER was measured using certain items. The index included; training in certain industries, supply chain management, waste disposal management, among others, taken to reduce any damaging effects on the environment from business processes. Involvement in Green CSR can be credited for the reduction of business risk, improvement of corporate reputation and provision of opportunities for cost saving.
participation in environmental public welfare activities, pursuit of zero emissions during production and application and special funds to support the conservation and utilisation of resources. Past financial performance was used as a moderating variable in the study. They concluded that past performance has no moderating effect on the relationship between PCER and CFP for state owned firms since they receive resources from government for their operations thus are not responsive to changes in their financial performance. As for privately owned firms, the neutral effect could be as a result of firms voluntarily engaging in CER neglecting financial benefits in pursuit of other non-financial ones like corporate legitimacy and reputation (Jiang, Xue, & Xue, 2018) [3].

A study conducted to examine how environmental costs affect the corporate financial performance of manufacturing firms around the world found that investments made in CER, can decrease a firm’s environmental cost thereby improving CFP. This finding, according to the study, is in line with the slack resources concept which argues that when a firm invests available slack resources in CSR this results in better financial performance. Results show that conventional industries like the basic resources and food and beverage industries incur substantially high environmental costs while technology and telecommunication industry incurs less. It also found that reduced environmental costs and high CFP are correlated but have a dynamic relationship such that lowered environmental costs is followed by at least two years of enhanced ROA. Data was collected from financial statements from Worldscope database by Thomson Financials for 30 countries within 2002 and 2011. Sample consisted of 16,214 firm year observations relating to different countries, 6,795 observations relating to 11 countries in Asia-Pacific region, 5,060 observations relating to 16 countries in Europe and 4,269 observations relating to 3 countries in North America. CER was represented by total environmental costs, sum of direct and indirect environmental costs, and CFP was defined by ROA adjusted for total environmental costs. Panel-data regression method was used to analyse data (Jo, Kim, Lee, & Park, 2013) [9].

2.2 Theoretical Review

2.2.1 Corporate Social Responsibility Theory

The concept of corporate social responsibility was introduced by Howard Bowen, often referred to as the “father of CSR”. In his book Social Responsibilities of the Businessman (1953) [3], he indicates that corporations have a responsibility of behaving ethically and being responsive towards societal stakeholders. This theory is generally a concept that emphasizes both the responsibility to remain profitable and the responsibility to interact ethically with the immediate community and the world at large. As a theory corporate social responsibility is constituted by obligations: economic, legal, ethical and discretionary (philanthropic) responsibilities which a corporation owes the society of which it considered to be a member of. Popularly known as Carroll’s Pyramid of CSR, the theory proposes that a company should first and foremost be economically responsible for it to survive in order to carry out the other obligations. It should then ensure it complies with all prevailing laws and regulations and before it considers becoming a good corporate citizen it should meet its ethical duties (Carroll, 1979). Nevertheless Carroll (2016) stresses that firms should engage in decisions, policies, practices and actions that fulfil these obligations simultaneously and not in a sequential or hierarchical manner starting from the base. Carroll selected the pyramid as a geometrical design to illustrate the building block nature of the four part framework. Accordingly, economic responsibility was placed at the base because it is a fundamental requirement of any business (Carroll, 2016) [1]. Hence, without financial stability a company is unable to meet other responsibilities including those it owes to society. However, the traditional thought questions spending in the legal, ethical and philanthropic activities arguing that they detract the firm profitability. The business case for CSR counters that engagement in CSR has positive effects like cost and risk reduction, increased competitive advantage, company legitimacy and reputation and so on. (Carroll, 2016) [1].

The theory is important in this study as it can reveal the importance of being economically sound and staying socially aware. It also reveals that a firm can improve its financial standing by employing sustainable strategies in its activities. The major strength of Corporate Social Responsibility theory is that it encompasses all social responsibilities categorised in the four dimensions. The major limitation of this theory is that as a result of prioritizing economic responsibility over legal and ethical can cause corporate misbehaviour, as was the case with Enron (Baden, 2016).

2.2.2 Stakeholders’ Theory

Edward R. Freeman is credited for originally detailing the Stakeholder Theory of organisational management and business ethics in 1984 in his book Strategic Management: A Stakeholder Approach. According to Freeman and Reed (1983, pp. 88-89), corporate action or inaction are driven by the obligation the corporation has towards its stockholders, who are sacrosanct and inviolable, but there is a long tradition departure from the view that stockholders have a privileged place in the business enterprise. They state that there are other groups that the corporation owes responsibility to, and these groups have a stake in the actions of the corporation. These groups, referred to as stakeholders, give support to the corporation, without which the corporation ceases to exist. From the definition of stakeholders as “any group or individual who is affected by or can affect the achievement of an organisation’s objective”, the theory suggests that managers should employ stakeholder management as a strategic approach (Freeman, 1984) in the achievement of both business and social goals (Freeman & Reed, 1983).

Stakeholder management essentially involves formulation and implementation of processes and procedures which satisfy only those groups or individuals that have a stake in the business by managing and integrating the relationships and interests of shareholders, customers, employees, suppliers and community in a way that ensures long term success of the firm (Freeman & McVea, 2001). Stakeholders in the traditional sense include employees, customers, suppliers, government, financial institutions and shareholders, primary stakeholders, but in a wider sense it also includes public interest groups, protest groups, trade associations, competitors and unions (Freeman & Reed, 1983). The study deduces that the latter group is mostly owed social responsibility. They are equally important because, although they affect the organisation indirectly,
their actions can still positively or negatively affect the organisation (Saylor.org, 2013) [17].

In his views, Freeman says that CSR is built on false conceptual distinctions of business on one side and ethics or social issues on the other. He is against the idea of separating business and social responsibility so that for a business making money and catering on self-interests, some social compensation becomes necessary. He therefore proposes that CSR needs to be built into the business, so that ethical and social concerns are just as important as profits for any business. All transactions of the business then encompass economic, social and environment effects without distinction on each, but ultimately value is created to all stakeholders of the transaction (Freeman, 2013) [11]. The theory is pertinent to the study because it elaborates the link financial performance has with creation of value for all stakeholders without assigning privilege to any duty the business has over any one of the stakeholder groups. It also explains the importance of business as well as social responsibilities managers have to cater for in a strategic manner.

2.2.3 Triple Bottom Line Model

Spreckley (1981) [13] asserted that financial performance, social wealth creation and environmental responsibility of enterprises should be measured and reported. This concept was later coined as “Triple Bottom Line” by John Elkington (Elkington, 1999) [16]. Elkington suggested that companies should prepare for three bottom lines; the first, the basic traditional objective of the firm, “profit or loss”, second, “people” by ensuring social welfare is not disrupted by organisation’s operations, and last “planet” by ensuring the organisation is environmentally responsible (Elkington, 1999). Business entities should just as seriously value their environmental quality and social capital as they do their economic prosperity (Zak, 2015). Triple Bottom Line (TBL) reporting is therefore regarded as an important tool for accomplishing sustainability goals (Slaper & Hall, 2011) [20]. TBL as a sustainability tool measures the impact of an organisation’s activities on profitability and shareholder value, social and human and environmental capital (Slaper & Hall, 2011) [20]. CSR embodies the concepts of social and environmental performance as highlighted in TBL. However, TBL unlike CSR separates the concept of environment from social responsibilities (Fauzi, Svensson, & Abdul Rahman, 2010) [22]. Both planet and people concerns have different measures just like profit that enable reporting in TBL (Fauzi, Svensson, & Abdul Rahman, 2010). Businesses worldwide are compelled to use TBL because of its sustainable nature and its evident ability to influence long term profitability (Slaper & Hall, 2011) [20].

The theory is important for the conduct of this research for its ability to separate environmental responsibilities from other social responsibilities as highlighted as this research’s variables. It also provides the ability of measurement of environmental and social activities.

3. Research Design

The study adopted descriptive design. The population of the study is made up of small and medium sized enterprises from Kenya’s top 100 mid-sized companies’ survey. The survey is an initiative of KPMG and Nation Media Group, launched in the year 2008, which has since been identifying 100 top performing companies every year. The companies listed in 2018 was targeted. It seeks to identify Kenya’s fastest growing medium sized companies in order to showcase business excellence and highlight some of the country’s most successful entrepreneurship stories.

A finite population sample size was determined using formulae (Kothari & Gaurav, 2014) as follows:

\[
N = \frac{NZ^2p(1-p)}{\sigma^2(N-1) + Z^2p(1-p)}
\]

Where, \(n\) is sample size
\(N\) is population size or the sampling frame
\(Z\) is level of significance obtained from z-table
\(p\) is sample ratio expected to have required characteristics, conservative value is 0.5
\(1-p\) is sample ratio expected not to have required characteristics \(e\) is margin of error = 0.05

\[
n = \frac{86\times1.96^2\times0.5\times0.5}{0.05^2(86-1) + 1.96^2\times0.5\times0.5}
\]

\(n = 70\)

The sample of the study was selected using simple random sampling method where each individual company has same
probability of being chosen. Secondary data was collected using a data collection sheet from the financial records of respondent companies. Net investment made annually in CSR activities and net profit data was collected from financial statements of the respondent SMEs for the years between 2013 and 2018 then the data was analysed to allow the researcher to make inferences about the relationship between investment in CSR activities and SME financial performance.

Data was analysed using both descriptive and inferential data analysis techniques. Data was edited, coded and classified accordingly to facilitate better and efficient analysis. Descriptively, data was analysed using mean and median. Multiple linear regression (MLR) analysis was used to inferentially investigate the effect of annual cost of CSR (represented by the annual amounts spent on philanthropic CSR activities, environmental CSR activities and ethical CSR activities) with the mediating effect of past financial performance (represented by the ROI of the previous year) on financial performance (represented by ROI) of small and medium sized enterprises.

The multiple regression model is specified as follows;

\[ Y_{it} = \beta_0 + \beta_1(PA)_{it} + \beta_2(EA)_{it} + \beta_3(ETA)_{it} + \alpha + \epsilon \]

Where, \( Y_{it} \) = measure of financial performance (ROI)
\( \beta_0 \) = intercept
\( \beta_1, \beta_2, \beta_3 \) = coefficients of philanthropic, environmental and ethical CSR activities and past financial performance respectively.

\( (PA)_{it} \) = Philanthropic Activities
\( (EA)_{it} \) = Environmental Activities
\( (ETA)_{it} \) = Ethical Activities

Analysed data was presented in text, graphic and tabular form.

4. Findings and Discussions
4.1 Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>environmental Activities</td>
<td>420</td>
<td>276081.7</td>
<td>1024624</td>
<td>58</td>
<td>7046812</td>
</tr>
</tbody>
</table>

The table shows that the mean value of environmental activities was Kshs. 276,081.7. The maximum for environmental activities was Kshs. 7,046,8132 and minimum being Kshs. 58.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Investment</td>
<td>420</td>
<td>120,753,008</td>
<td>31,467,548</td>
<td>18241</td>
<td>3851,509</td>
</tr>
<tr>
<td>Net Profit</td>
<td>420</td>
<td>17,012,407</td>
<td>77,372,307</td>
<td>995,124</td>
<td>61,365,008</td>
</tr>
<tr>
<td>Return on Investment</td>
<td>420</td>
<td>0.1207333</td>
<td>0.1517661</td>
<td>0.098</td>
<td>1.54</td>
</tr>
</tbody>
</table>

Table 4.3 present the results of the descriptive statistics of financial performance measures by the SMEs under the study. First, the findings revealed that the mean performance for total investment was Kshs. 120,753,008 with the maximum total investment being Kshs. 3,851,509 with a minimum of Kshs. 18,241 deviating from the mean by Kshs. 31,467,548. The mean performance for net profit was Kshs. 17,012,407 with maximum net profit achieved in the period under the study being Kshs. 61,365,008 with minimum of Kshs. 995,124. The mean return on investment (ROI) was 0.12 with a maximum value being 1.54 and minimum of 0.098.

4.2 Inferential Statistics on the Relationship between Environmental Activities and Financial Performance

The main objective in the study was the effect of annual cost of environmental activities on the financial performance of small and medium sized enterprises in Kenya. To achieve this objective the following hypothesis was formulated;

\( \text{Ho}_1: \text{There is no statistically significant effect of annual cost of environmental activities on the financial performance of small and medium sized enterprises in Kenya} \)

Random Effects regression model

| Variable | Coef. Err. | Std. | t  | P>|t| | [95% Conf. Interval] |
|----------|------------|------|----|-----|---------------------|
| env      | -5.6109    | 2.2309 | -2.52 | 0.012 | -1.0008 - -1.2309   |
| cons     | .1245931   | 0.00906 | 13.75 | 0.000 | .1067841 - .1424022 |

Source: SMEs CSR Costs and Financial Performance (213-213)
The random effects model above shows that the combined effect of amount spent annually on CSR on return on investments is statistically insignificant within the SMEs in the KPGM and Nation Media Programme. The study established p-value of 0.000<0.05 with R squared 0.0631 indicating that amount spent annually on environmental activities had effect on return on investment by 6.3 %, the other 93.7% were contributed by factors outside the scope of the study. It can therefore be concluded that the independent variables (amount spent annually on environmental activities) can be used to foresee the result of return on investments within the SMEs in the KPGM and Nation Media Programme. From the model when amount spent annually on environmental activities increases by 1 unit, return on investment also decreases by -5.6109 units with other variables kept constant which was statistically significant, p =0.012<0.05. This indicated that amount spent annually on environmental activities can be used to predict the SMEs returns on investments, though the relationship is inverse. The hypothesis H0: that there is no statistically significant effect of annual cost of environmental activities on the financial performance of small and medium sized enterprises in Kenya was rejected. The annual cost of environmental activities had inverse correlation with return on investment as a measure of financial performance, r=- 5.6109, p=0.012<0.05 indicating that the annual cost of environmental activities affected return on investment as a measure of financial performance of Medium Sized Enterprises in Kenya. The finding is supported by Jiang, Xue and Xue (2018) [8] who established that past performance has no moderating effect on the relationship between PCER and CFP for state owned firms since they receive resources from government for their operations thus are not responsive to changes in their financial performance.

5. Conclusions and Recommendations

5.3. Conclusions
Using results from random effects model, revealed annual cost of environmental activities by Small and Medium Sized Enterprises in Kenya can be used to predict the outcome of return on investment as a measure of the SMEs financial performance. Specifically, when amount spent annually on environmental activities is increased by 1 unit, return on investment also decreases by -5.6109 units with other variables kept constant. This indicated that amount spent annually on environmental activities can be used to predict the SMEs returns on investments, though the relationship is inverse.

5.2 Recommendations
Based on the conclusions of the study, the following recommendations were made: the study recommends that relevant government departments like NEMA, trade and Institute of Certified Public Accountants (ICPAK) should create awareness on the importance of integrating CSR activities in business. Such awareness should target SMEs, State Corporations and listed firms using common format so that these organization may be aware of their role in enhancing philanthropic, environmental and ethical activities in their businesses as they pursue profitability.

References