Journal of African Interdisciplinary Studies (JAIS): **ISSN 2523-6725** (online)
July, 2021 Vol. 5, No. 7

Citation: Mbole, U. C, Arasa, R. & Mang'unyi, E. E. (2021). Environmental Initiatives and Financial Performance: A Study of Cement Manufacturing Companies in Kenya. *Journal of African Interdisciplinary Studies*, 5(8), 40 – 58.

Environmental Initiatives and Financial Performance: A Study of Cement Manufacturing Companies in Kenya

By

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Abstract

The exponential growth of Corporate Social Responsibility (CSR) initiatives today suggest that such business activities have shifted from unnecessary additions to a critical business function. The purpose of this study was to establish the effects of environment initiatives (EI) on the Financial Performance (FP) of cement manufacturing companies in Kenya. The study adopted a post-positivism philosophy that incorporated the descriptive research technique. The study population was all the workers in cement manufacturing companies. The total population was 624 and sample size was 255. Out of these, 196 respondents participated in the study translating to a response rate of 80.3%. Both primary and secondary data was collected and utilized for purposes of this study. The data was analyzed using both descriptive and inferential statistics. Structural Equation Modelling (SEM) was utilized aid establishing the relationship between EI and FP. The study findings revealed that environmental initiatives have a significant positive effect on financial performance of cement manufacturing companies in Kenya. The positive path coefficient for EI and FP was (beta=0.594). The study concludes that EI factors do influence positively the FP of cement companies in Kenya. The study recommends that it is imperative for governments; academia and different companies align EI initiatives amongst themselves to have an impact in the immediate community. Further research needs to look into different EI that promotes CSR activities to provide a win-win situation for the government, companies, and any other stakeholder affected by any form of CSR engagement.

Keywords: Corporate Social Responsibility, Financial Performance, Corporate Social Performance, Environmental Initiatives, Kenya

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Introduction

The increasing pressures of businesses on humanity and the natural environment have raised concerns among people around the world considerably. Today, the various stakeholders found in national and international communities expect more responsible uses of increased business power (Rosca, 2019). Corporate Social Responsibility (CSR) may provide a general framework to structure the responsible use of corporate power and social involvement (Turker, 2008).

However, a review of the literature reveals some of the unanimous aspect of the concepts that have attracted convergence of thought among academicians, researchers and scholars alike. For example, concerns about the natural environment, employees, ethics and society as a whole are thought to constitute an important part of a firm's social responsibility (Carroll, 1999). Robson (2018), notes that economic theories and practices, like accounting for example, have long since qualified business in terms of its capacity to maximize profit. The current global context of business activity, practices and the increased flux of information have demonstrated the limits of these models and the necessity to broaden their scope.

The interest in CSR is growing among companies, but the motives behind it are varying. However, the engagement can to a large extent be explained by increasing pressure from stakeholders (Zizka, 2017). The pressure is not only expressed by customers, but also by employees, suppliers, community groups, non-governmental organizations as well as governments. Zizka, (2017) further adds that the interest in CSR has been seen to be growing particularly in multi-national, multi-divisional companies who are exposed to differing business norms and standards, regulatory frameworks, and stakeholder demand for CSR across the nations they are operating in.

Bagnoli and Watts (2016), outline several reasons why CSR and other such voluntary initiatives are important for mining companies. These include the following; - Public opinion of the sector as a whole is poor; opinion of natural resource extraction industries is influenced more by concerns over environmental and social performance than by performance in areas such as product pricing, quality, and safety (Bryson, Forth, & Stokes, 2017). Pressure groups have consistently targeted the sector at local and international levels, challenging the industry's legitimacy. The financial sector is increasingly focusing on the sector from both risk management and social responsibility perspectives. It is not unusual for mining companies to be screened out of Socially Responsible Investing (SRI) funds altogether (SRI, 2002) and maintaining 'a license to operate' is a constant challenge.

The article will proceed as follows: an introduction is followed by both conceptual definitions and theoretical foundation of the study, a review of salient literature, methodological aspects, presentation and discussion of results and finally conclusions and recommendations are given.

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Statement of the Problem

The notion of engaging beyond compliance is ethically desirable, even if it takes away resources from a firm's immediate needs (Jooh, Niranjan, & Roh, 2010). Similarly, exponential growth of CSR initiatives today suggest that such business activities have shifted from unnecessary additions to a critical business function. It is impossible to envisage a modern life without cement. According to Liao, Wang, and Huang (2018), cement demand is directly associated with economic growth, and many growing economies are striving for rapid infrastructure development which underlines the tremendous growth in cement production.

Despite its popularity and profitability, the cement industry faces many challenges due to environmental concerns and sustainability issues. Emissions from cement manufacturing are one of the major contributors in global warming and climate change. According to Stajanča & Eštoková (2012), cement is a basic component of concrete used for building and civil engineering construction. The cement industry is one of the primary producers of carbon dioxide, a major greenhouse gas. Further, concrete causes damage to the most fertile layer of the earth, the topsoil.

Studies have shown that there is a significant positive relationship between CSR and FP (Wahba 2008, Hull and Rothenberg 2008, Rettab, Ben Brik, and Mellahi, 2009, Curley, 2017). Abdullahi, Abdullahi, Ali & Abdulrazaq (2017) study examined the determinants of Corporate Social Responsibility (CSR) of listed Cement Industry in Nigeria from 2012 through 2016. The study examined the effect of profitability, firm size and dividend on CSR of the listed Cement firms in Nigeria. The findings of the study revealed that profitability, firm size and dividend paid positively and significantly influence on CSR practices.

Famiyeh (2017) used empirical evidence to establish the effect of corporate social responsibility on a firm's performance. Using data from firms in Ghana, the work demonstrated that CSR initiative by firms has a positive relationship with the firm's operational competitive performance in terms of cost, quality, flexibility, and delivery performance, as well as overall performance. Furthermore, the study demonstrated that competitive operational capabilities in terms of cost and flexibility lead to firms' overall performance from the Ghanaian business environment, whereas delivery and quality seem to have no positive effect on overall performance.

While there is a relationship between CSR and financial performance, limited research has been done in the Kenyan cement industry. This study examines the extractive industry focusing on cement manufacturing companies in Kenya. It seeks to determine the relationship between their CSR initiatives, i.e., environment, health and safety, philanthropy and government policies, and examine the extent to which these CSR initiatives impact the financial performance of these companies.

Review of Related Literature

Theoretical Foundation

Since there is a great heterogeneity of theories and approaches of CSR, discussion in this study is based on a comprehensive analysis by Secchi (2007) and it is compared with analysis by Garriga and Mele (2004). Secchi has come up with a group of theories based on a criterion on what role the theories confer to the corporation and society. The theories, illustrated in Table 1 are as follows: The utilitarian theory, the managerial theory, and the relational theory. On the other hand, Garriga and Mele's (2004) analysis maps CSR into four types of

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territories. They are: instrumental theories, political theories, integrative theories, and Ethical theories. Table 1 presents relevant theories and their conceptualizations for purposes of this study.

Table 1 Summary of utilitarian, managerial and relational theories of Corporate Social Responsibility.

Utilitarian Theory	**Managerial Theory**	**Relational Theory**
Theories on social costs Functionalism	Corporate social performance Social accountability, auditing and reporting (SAAR)Social responsibility for multinationals	Business and society Stakeholder approach Corporate global citizenship Social contract theory

Mbole (2020)

According to Secchi (2007) within the utilitarian theories, the corporation serves as a part of the economic system in which the function is mechanical i.e. traditionally known as profit maximization. Corporate Social Responsibility ideas emerged after a realization that there is a need for an economics of responsibility, embedded in the business ethics of a corporation. Hence, the old idea of laissez-faire business gives way to determinism, individualism to public control, and personal responsibility to social responsibility. Secchi's (2007) analysis further stresses the logic of managerial theory that emphasizes corporate management in which CSR is approached by the corporation internally. This makes the difference between the utilitarian and managerial perspective of CSR. This suggests that everything external to the corporation is taken into account for organizational decision making. Managerial theories have been divided into three sub-groups: Corporate Social Performance (CSP), Social accountability, auditing and reporting (SAAR), and social responsibility for multinationals. Secchi (2007) further adds Relational theory has a root from the complex firm-environment relationships. As the term implies, interrelations between the two are the focus of the analysis of CSR. Relational theory is further divided into four sub-groups of theories: business and society, stakeholder approach, corporate citizenship; and social contract. Business and society are proposed to mean 'business in society' in which CSR emerges as a matter of interaction between the two entities.

Conceptual Definition

Chatterji and Levine (2006), Perrini (2006) and Marquez and Fombrun (2005) surveyed current corporate practices in CSR measurement and reporting and provide some information on how companies engaged in CSR reporting commonly using environmental, sustainability and social reports as the measure for CSR performance. Masocha (2018) study researched the relationship between environmental sustainability and the three indicators of firm performance that have been recently discussed in literature, namely, innovation, environmental and social. Overall, this study established the positive consequences of adopting sustainable development practices towards the three researched aspects of firm performance and suggests that SMEs that disregard the adoption of environmentally sustainable development risk failure in the current environment. The findings have further

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implications for policy formulation and government decisions. The business case for environmentally sustainable practices suggests that government decisions could consider the formulation of policies that stimulate the adoption and participation of SMEs in environmentally sustainable development. "Going green" has been an emerging issue worldwide driving companies to continuously enhance their green capabilities and implement innovative green practices to protect the environment and improve business performance (Weng et al., 2015).

Empirical Review

Hassel, Nilsson & Nyquist (2011) present results as they examine how CSR affects the financial performance of Swedish companies, where CSR and financial performance are represented and measured by environmental information and market value, respectively. The study concludes that high environmental performance is costly and that this type of investment therefore negatively affects the expected earnings and market value. They explain their results by using three different factors. First of all, they state that companies' environmental performances are perceived as window dressing of book values and financial performance among investors. Secondly, they argue that environmental activities are made at the expense of increased profits, which investors react negatively upon as their return decreases without a corresponding reduction in risk. The last factor used as an explanation is the fact that the market is short-term oriented, which makes investors ignore longer-term environmental information when making investment decisions. Companies with a highly rated environmental performance are therefore not rewarded by investors (Hassel et al., 2011). Miyamoto (2016) made similar study, however using an event study approach, in which they examine the correlation between public announcements of environmental performance rewards and stock market performance, i.e., abnormal stock returns. In their study, they present evidence supporting the hypothesis that strong environmental management has a significant positive impact on stock returns. In addition, they find differences between industries and for first-time awards. In general, first-time awards have shown to have a greater impact on market valuation, but the impact on stock return for firms acting in environmentally dirty industries is shown to be less than the impact on other firms. Consequently, it is concluded that the market rewards firms that receive awards for investing in socially responsible areas (Smith & Smith, 2016).

Studies Indicating a Negative Relationship

There is one and only one social responsibility of business – to use its resources and engage in activities designed to increase profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception and fraud' (Seip & Grøn, 2016). Nurmalia (2017) noted that this well-known quote made by Friedman (1970) supports the neo-classical theory stating that the role of the management of a company is to make decisions solely based on maximization of the corporation's long-term market value, which includes the wealth of the company's owners. As the management of a company acts as an agent for shareholders, it has no mandate to take initiatives on socially responsible activities that do not generate increased incomes to the firm (Sharma, Chadha, & Dhar, 2018).

This neo-classical view implicates that investment in CSR activities will put the company at a competitive disadvantage, which in turn leads to a negative relationship between these socially-responsible activities and market performance (Gorokhova, 2014).

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Studies Indicating a Positive Relationship

The traditional view of stock investors as being profit maximizes exclusively interested in earning the highest level of future cash-flow for a given amount of risk has over the years become criticized (Yanti, 2018), Initially, it was often assumed that investors were unwilling to pay a premium for socially responsible corporate behaviour, however, this has proven to be changed. In contrast to the neo-classical view, the stakeholder theory takes a different approach, which often is seen to conflict with the former (Bird et al., 2007). Instead of benefiting shareholders only, the stakeholder theory claims that companies have obligations to a wider group of stakeholders and that resources should be utilized in a way that not only benefits the shareholders (Ofori-Sasu, Abor, & Osei, 2017). This has been criticized, but evidence shows that a wider perspective is not necessarily negative. Instead, several studies have found a positive relationship between different types of CSR activities and financial performance. In fact, it has been suggested that there is no conflict between the two approaches as long as outlays on CSR activities have a positive influence or no influence at all on the market valuation of a company (Bird et al., 2007).

Among the older studies of the relationship between CSR activities and financial performance with financial performance as the dependent variable. Feng, Wang, & Kreuze (2017) use reputation index as CSR proxy and various financial performance indicators. They study the correlation between these variables over two five-year periods across a wide range of US industries, 29 and 28 respectively. The further add to find a marginally significant positive correlation between the social performance proxy and various financial performance indicators and use asset age as an explaining factor. They state that firms with higher CSR rankings have higher reported asset values as they use their assets differently, which affects the financial results positively compared to older competitors (Feng, Wang, & Kreuze, 2017)

Studies Indicating No or Insignificant Relationship

As mentioned above, there should be no conflict between the neo-classical view of a corporation and the stakeholder theory as long as CSR investments have a neutral or positive influence on the company's market valuation (Bird et al., 2007). The studies finding a positive correlation were specified in the previous section, however, several studies indicate no or insignificant relationships between socially responsible activities and financial performance.

In their early study Kleinman, Kuei, & Lee (2017) use social responsibility rankings made by students and businessmen as CSR measures and aim to examine if there is a correlation between this measure and stock return on a risk-adjusted basis. The risk of the stock was approximated based on the beta coefficient. The firms examined were US firms over five years. The results and analysis showed that there was no correlation between the two variables. They link their results to the efficient market theory, which states that positive or negative effects associated with the degree of social responsibility of a firm are reflected immediately in its stock price. As the majority of the firms included in the study did not show abnormal stock returns, the authors conclude that social responsibility does not affect stock prices. In addition, they conclude that there is an insignificant relationship between risk and degree of social responsibility.

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Current CSR Environment Initiatives Researches using the Structured Equation Model

Masocha (2018) study researched the relationship between environmental sustainability and the three indicators of firm performance that have been recently discussed in literature, namely, innovation, environmental and social. Overall, this study established the positive consequences of adopting sustainable development practices towards the three researched aspects of firm performance and suggests that SMEs that disregard the adoption of environmentally sustainable development risk failure in the current environment. The findings have further implications for policy formulation and government decisions. The business case for environmentally sustainable practices suggests that government decisions could consider the formulation of policies that stimulate the adoption and participation of SMEs in environmentally sustainable development.

Masocha (2018) further adds that this will improve the long-term sustainability or survival of SMEs as one of the challenges for SMEs has been disregarding the environment. Furthermore, the findings have positive implications for governments, which have long desired and strived for environmental protection measures. For the government to enhance sustainability, the role played by SMEs is a worthwhile consideration. Thus, the government can achieve greater environmental protection if they can implement policies and strategies that encourage environmental protection. Such programs could come in the form of subsidies and support that is directed towards small businesses that participate in environmental sustainability.

"Going green" has been an emerging issue worldwide driving companies to continuously enhance their green capabilities and implement innovative green practices to protect the environment and improve business performance (Weng et al., 2015). First, based on stakeholder theory, this study is among the first to provide a holistic view examining the effects of each of the stakeholders on green innovation practices. When the five main stakeholders (external stakeholders: competitors, government; internal stakeholders: customers, suppliers, and employees) are all considered, employee conduct and pressure from competitors and the government were associated with positive and significant effects on green innovation practices. In particular, employee conduct showed the strongest influence.

They further add that companies must adopt environmental management issues when setting company strategies, modifying company structures, providing training courses, offering rules to follow, and so on. Companies need to provide clear guidelines and proper monitoring mechanisms for employees to follow. Additionally, continuous research regarding competitors' green practices and updated government requirements is also important, regardless of whether a company is positioning itself as a leader or a follower in green capabilities. Top managers must decide when and how much their companies must invest in going green (Weng et al., 2015).

Chang and Kuo (2008) undertook a study to find out the influence and possible linkage of corporate sustainability development and a firm's financial performance and to draw up a measurable model to assess the relationship and influence between the two variables from an empirical approach. The assessment model of corporate sustainability is essentially more complex than partial evaluation of the social or environmental relationship with a firm's financial performance because of the economic sustainability included in this study.

The economic dimension is the very initial and intrinsic object of firms when migrating toward corporate sustainability; a firm would not be able to care more about social

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and environmental affairs were there no sustainable economic support being established in the first place, viewing from a need-hierarchy conceptual model (Tuzzolino and Armandi, 1981). Chang and Kuo (2008) research establish a model of forces affecting a firm's development of sustainability and observes some influence on corporate profitability empirically. The model provides a prominent overview for firms about the relationship and influence of sustainability and profitability and suggests that the higher sustainability performers' profitability is sometimes affected by the sustainability performance in a positive way and appears to have reciprocal influences between sustainability and profitability within the same period; the influence of sustainability may also disperse to a later period. Within the same year, as appears in 2004 and 2005, the impact of sustainability on profitability tends to be stronger than the reciprocal influence generated from profitability, thus this may imply an influence that varies in accordance with time and that a sustainability-driven policy exists among the higher performers' group.

Examining the Swedish manufacturing industry, there are different levels in the configuration of sustainability strategy in a manufacturing network with multiple manufacturing locations. Economic sustainability is often considered in a centralized manner by the focal company, whereas social sustainability is more localized (Chen 2015). In addition, environmental sustainability is often managed in a mixed pattern, with a combination of centralized and localized strategies. Moreover, Swedish manufacturers often employ a relatively high level of technology in developing their products and processes. This study found a strong positive correlation between a company's process and product strategy and its sustainable practice and performance. More specifically, if companies had a higher level of product and process technology, they had better environmental practices and performance. Furthermore, better social practices and performance were also detected in these companies.

Research Methods

Population and Sampling

The sample frame was drawn from all the cement manufacturing companies authorized by the Ministry of Mining in Kenya and recognized to have formal registration and have filed current returns with the Registrar of Societies. According to Global Cement (2019) there are currently 6 companies operating in Kenya namely Bamburi Cement, Athi River Mining, East African Portland, Mombasa Cement, National Cement, and Savanah Cement. The study's strata were drawn from the different divisions of the six cement companies specifically, concentrated on the finance, corporate affairs, health and safety, the legal department and any foundations the cement companies may have registered. According to company websites between 2017-2019, the estimated total population of employees in the industry is about 3120. Approximately 80 percent are casual employees whereas 624 are permanent and pensionable. Therefore, the population in this study consisted of 624 senior top management, middle managers and subordinate staff of various departments/ divisions in the five cement companies currently producing cement products in Kenya for they were key providers of the first-hand information required by the researcher as indicated; Top Managers 39 which is 6.3%: Middle Managers 59 which is 9.5%: Support Staff 526 which is 84.2%: Total's persons 624 and 100% sample size.

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Data Collection Procedures

Structured questionnaires were used in data collection as a primary data source. During the study, data was collected using questionnaire developed by the researcher. The questionnaire was developed based on a thorough review of literature and similar past studies. The questionnaire comprised of both open ended and closed-ended questions. The first section had general questions which assisted the researcher to acquire demographic information from the respondents while the second section had both closed-ended questions and open-ended questions which collected the response data on all cement companies towards addressing the research objectives or hypothesis.

Data for the main study was collected from 2018 to2019. Permission to conduct study was obtained from the respective institutions beforehand. No incentives were given for participating.

Variable Measurement

The main independent variables were measured by respective eight single statements (questions) scaled 5-point Likert scale. The scales ranged from 1 (Strongly Disagree) to 5 (Strongly Agree). All the constructs used were constructed for this study from expert advice from academic papers and research which were able to point out what items are useful and essential for the study.

Such used statements-regarding environmental protection in relation to CSR engagement-were

- My company engages in environment protection as CSR activity
- My company engages in electricity energy saving as CSR activities
- My company participates on green energy
- My company engages in waste recycling as CSR activity
- My company participates in mine rehabilitation
- My company supports degradable packaging as CSR activity
- My company produces cement by products i.e., silicate, fertilizers etc.
- My company researches on environmentally friendly services or products

To test reliability, the study utilized the internal consistency technique (Cronbach Alpha) developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test or scale. In light of the above, the study obtained scores from the test administered by the researcher to a sample of 15 respondents during a pilot study and correlated them. The findings showed that environmental protection in relation to CSR (α= 0.611). The data on the reliability scale indicated that all the variables were reliable $\alpha > 0.6$ (Cronbach, 1951).

The study employed the Structural Equation Model (SEM) to enable a multivariate statistical analysis technique that could analyze structural relationships between FP and EI with CSR. The method was preferred in the study as it estimates the multiple and interrelated dependence in a single analysis engagement. A number of CSR studies have adopted the SEM approach to understand relationships between independent variables, dependent variables and mediating factors (Khalid & Al-Shuaibi 2016, Bocciaa & Sarnacchiarob 2014 and Sinha, Sachdeva, & Yadav 2018). In this study, the measurement scales measured three first-order constructs.

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Diagnostic tests

Fornell and Larker (1981) suggested that convergent validity can be assessed using AVE which is a measure of the shared or common variance in a latent variable that is, the amount of variance that is captured by the latent variable in relation to the amount of variance due to its measurement error (Dillon and Goldstein 1984). For convergent validity requirements to be satisfied, the AVE should be greater than 0.5 (Bagozzi, Yi, and Philips, 1991). Further convergent validity can also be assed using the Cronbach alpha. Hair et al. (2010) suggested that a Cronbach alpha of 0.7 and above is a good indicator of convergent validity. Table 1 illustrates as summary of convergent validity.

Table 1 Convergent Validity

Variables	**CR**	**AVE**	**Cronbach's Alpha**
Environment initiatives	0.838	0.593	0.85

Mbole (2020)

Different tests were performed on the data. Normality test was conducted to determine the distribution of data. Using Skewness and Kurtosis statistical tests, the normality test was positive within the range of -2.0 and + 2.0. Table 2 shows all the values of skewness ranged from -.698 to 1.661 and kurtosis values ranged from -.229 to 2.097. This shows that the data was normally distributed (Ghasemi, & Zahediasl, 2012).

Table 2 Test of Normality

		Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
Environmental Initiatives (EI)	EI1	-.698	.174	-.229	.346
	EI2	-.238	.175	-.806	.347
	EI3	-.444	.174	-.340	.346
	EI4	-.284	.175	-.654	.347
	EI5	.210	.175	-.676	.347
	EI6	-.263	.175	-.444	.347
	EI7	1.661	.174	2.097	.346
	EI8	-.043	.174	-1.151	.346

Mbole (2020)

Heteroscedasticity was tested by performing the Breuch-pagan / Cook-Weisberg test. The test showed that the error variances are all equal versus the alternative that the error variances are a multiplicative function of one or more variables (Vinod, 2008). Homoscedasticity will be evident when the value of "Prob > Chi-square" is greater than 0.05 (Park, 2008). Table 2 shows that the constant variance (Chi-square= 3.934) is insignificant (P = 0.269).

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Table 2 Test of Heteroscedasticity

Ho: Constant variance
Variables: EI

Ho	Variables	Chi2 (3)	Prob > Chi2
Constant Variance	EI,	3.934	0.269

Mbole (2020)

In this study, the variance inflation factor (VIF) and the Tolerance were used to test multicollinearity among the independent variables. Tolerance measures the impact of collinearity among the variables in a regression model and is calculated from 1 - R2 with a tolerance value close to 1 showing little multicollinearity, while a value close to 0 indicates presence of multicollinearity (Belsley, Kuh & Welsch, 2004). The VIF gives an index that shows how much the variance of an estimated regression coefficient is increased because of collinearity (Wooldridge, 2000). Cohen, Cohen, West and Aiken (2013) provided that a VIF statistic above 5 is an indicator of multicollinearity and should be removed from regression models. In this case the VIF values range from 0.512 to 1.951 and it was concluded that there was no evidence of multicollinearity in the data.

The output on the EFA was the KMO and Bartlett's test which shows the strength of the sampling adequacy after the factor extraction. As indicated in Table 3 the Kaiser-Meyer of sampling adequacy was 0.931 and Bartlett's Test of Sphericity was significant at X2 (36, N=196) = 1706.966, p<.05). This shows the sample was adequate for extraction of components since Kaiser-Meyer-Olkin Measure was greater than 0.6 and Bartlett's test was significant (p<.05). In this study the sample was adequate and the results of the analysis would represent each variable in the model and for the complete model.

Table 3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.931	
Bartlett's Test of Sphericity	Approx. Chi-Square	6472.499
	df	561
	Sig.	.000

Mbole (2020)

In this study convergent validity was determined by assessing the Average Variance Extracted (AVE), Cronbach's alpha coefficient, and the magnitude of factor loadings. The AVE and Cronbach alpha results for this shows that the Cronbach alpha scores for EI was 0.85 well above the cut-off rate of 0.7 suggested by Hair et al (2010). Likewise, AVE was 0.593 above the cut off value of 0.5 recommended by (Hair et al, 2010) thus it was concluded that the requirements for convergent validity had been met.

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Hypothesis Testing

The objective of this study was to examine effects of environment initiatives (EI) on the financial performance of cement manufacturing companies in Kenya. To address this objective, the hypothesis below was tested.

Environmental initiatives have no significant effect on the financial performance of cement manufacturing companies in Kenya.

This study finding indicated that there was a positive path coefficient (beta = 0.594) between environment initiatives (EI) and financial performance (FP), as shown in Figure 1. In this regard, H02 was rejected. Since the CR value was 8.53 ($p<0.05$), the study rejects the null hypothesis and accepts the alternative hypothesis and concludes that environment initiatives have a positive influence on financial performance. Environment initiatives explained 35% of the variance in the financial performance construct.

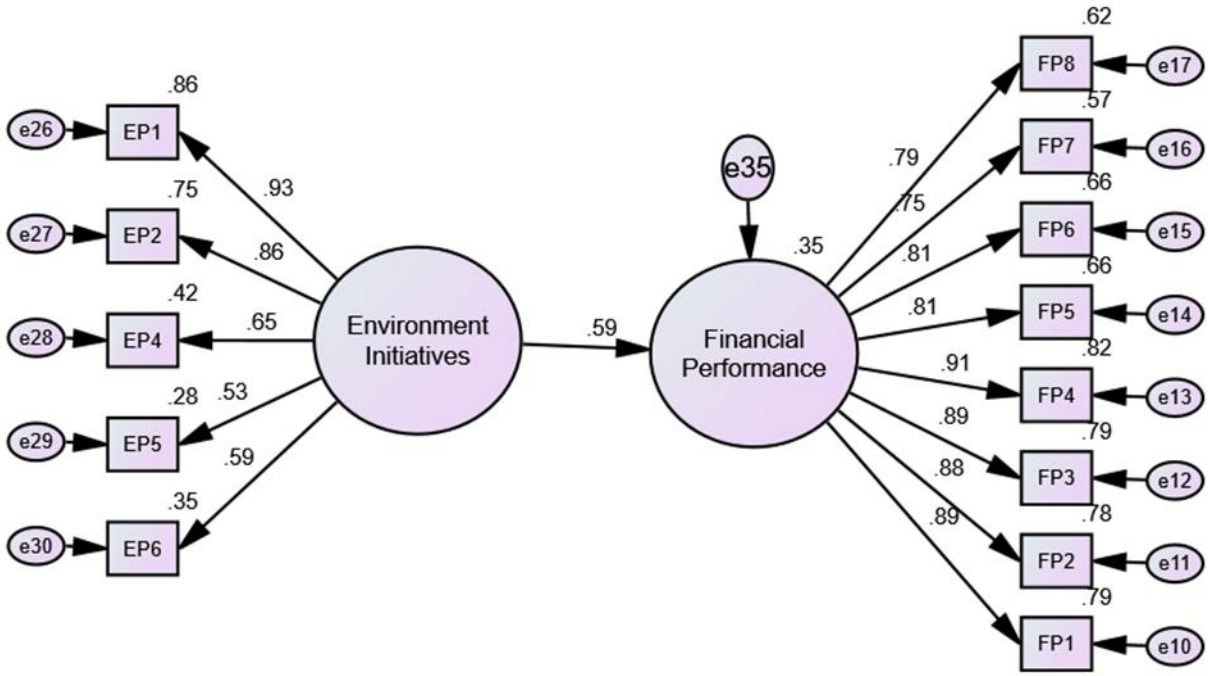

Figure 1 SEM Relationship with EI and FP
Mbole (2020)

Table 4 Regression Weights for EI on FP

Path			unstandardized Estimate	Beta	S.E.	C.R.	P
Financial Performance	<---	Environment Initiatives	**0.61**	**0.594**	**0.072**	**8.53**	***

Mbole (2020)

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According to Table 5 the value for CFI, an incremental fit index, was 0.913, which is above the 0.90 threshold (Hair et al., 2010) hence acceptable and RMSEA which is a value below 0.076 greater than the threshold of 0.06 value provided a good fit (Hair et al., 2010). These results suggest that the measurement model for demographics of EI on FP provided a reasonably good fit.

Table 5 Model fits for EI and FP

Measure	Estimate	Threshold	Interpretation
CMIN	120.881	--	--
DF	64	--	--
CMIN/DF	1.889	Between 1 and 3	Excellent
CFI	0.913	>0.95	Acceptable
SRMR	0.066	<0.08	Excellent
RMSEA	0.076	<0.06	Acceptable
PClose	0.046	>0.05	Acceptable

Mbole (2020)

Discussions

This result can be looked at from both a practical and theoretical perspective. According to the findings in the study, the environmental initiatives, as a CSR engagement, influences economic activities positively. According to the utilitarian theories, the corporation looks at the economic system that enhances profit maximization. Such systems include Corporate Social Responsibility which emerged after a realization that there is a need for an economics of responsibility, embedded in the business ethics of a corporation (Secchi 2007, Panda & Tiwari, 2019). This theory together with instrumental theories (Garriga and Mele, 2004; Jensen, 2002) in which the corporation is seen as only an instrument for wealth creation, with specific social activities to achieve economic results support the study findings.

The study findings reveal that involvement in environmental initiatives has different benefits to the company including but not limited to a good working place, increased appreciation by immediate communities, and or meets regulatory requirements such initiatives have positive output to the companies including profit. This is supported by another model that looked at social responsibility of business as a single-dimensional activity in which business has the only responsibility of supplying goods and services to society at a profit (Bhide & Stevenson, 1990; Friedman, 1970; Gaski, 1985). According to Quazi and O'Brien (2000), who developed a two-dimensional model of corporate social responsibility and empirically tested its validity, one of the models covers the profitability of the companies through the CSR. In particular, the Socio-economic view: where social responsibility will lead to net benefit to the company in terms of avoiding costly and embarrassing regulations, building good customer relationships, good supplier relationships, or the politics of networking.

Masoch (2018) further adds that this will improve the long-term sustainability or survival of companies as one of the challenges for many has been disregarding the environment. Furthermore, the findings have positive implications for governments, which have long desired and strived for environmental protection measures. For the government to enhance sustainability, the role played by any company is a worthwhile consideration. Thus,

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the government can achieve greater environmental protection if they can implement policies and strategies that encourage environmental protection. Such programs could come in the form of subsidies and support that is directed towards small businesses that participate in environmental sustainability.

Cement is a fundamental building material used in construction in Kenya, out of the six companies under review five had a focused engagement with environmental activities, an indication of the importance of environmental engagement and company success. According to Curley (2017), studies have been undertaken in the manufacturing, construction and allied sectors which comprise of many other businesses that vary from cigarette, food paints and cement production, the different products brands can result into different companies' CSR engagement activities. According to the Environmental, Social & Governance (ESG) report (2015), Bamburi Cement Limited's primary CSR focus areas are Health & Safety, Education and Environmental Conservation into which they channel their priorities towards projects that respond to these areas. Athi River Cement who are the producers of the Rhino brand concentrate on education, environment and health (Athi River Mining, 2017).

Savannah Cement (2013) ascribes to a mode of human development in which resource use aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also in the generations to come. The East African Portland Cement Company (EAPCC) is committed to conducting business in ways that produce social, environmental and economic benefits for their stakeholders and the communities in which they operate (EAPCC, 2016). The National Cement Company's main corporate social responsibility activities revolve around environmental conservation. They succeed in this by planting trees on areas that are barren. (Devki Group of Companies, 2016).

Conclusion

On the influence of EI on FP, this study concludes that EI has a positive and significant influence on FP of Kenyan cement manufacturing companies. This means that the factors inherent in environmental protection influence the financial performance of the cement companies. Factors such as the company engaging in environment protection, the company engaging in electricity energy-saving initiatives, the company participates on green energy, the company supporting degradable packaging as a CSR activity, the company engaging in waste recycling, the company engaging in mine rehabilitation and the company researches on environmentally friendly services or products are all critical factors that can influence FP. In particular, the study concludes that the above factors do influence positively the FP of cement companies in Kenya.

The study concluded that each CSR activity such as environmental initiatives support a strategic company management process that contributes to the overall company success and financial wellbeing. On applicability, the current study finding researched the relationship between environmental sustainability and the three general indicators of firm performance that could been identified, namely, innovation, environmental and social. Overall, this study established the positive consequences of adopting sustainable development practices i.e., environmental initiatives and suggests that disregard the adoption of environmentally sustainable development risk failure in the current environment. These findings have further implications for policy formulation and government decisions. This is supported by Masocha (2018) who noted that business case for environmentally sustainable practices suggest that

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government decisions could consider the formulation of policies that stimulate the adoption and participation of companies in environmentally sustainable development.

Recommendations

The research concluded that EI has a significant effect on financial performance of cement manufacturing companies in Kenya. It is imperative for the government to align different agencies and government parastatals policies to be in line with different environmental initiatives by cement companies that can support the Kenya millennium goals particularly those pertaining to environmental sustainability.

Academia particularly environmental professionals need to understand different impacts of environmental degradation impacts cement companies have and develop unique initiative cement companies can adopt in their environmental initiatives.

Cement companies need to define and develop environmental initiatives that support their financial performance and hence make stockholders and stakeholders understand the initiative at hand add to the whole company's growth and sustainability.

Suggestions for Further Research

Further research needs to look into EI that promotes CSR activities to provide a win-win situation for the government, companies, and any other stakeholder affected by any form of CSR engagement. The study gave rise to some more parameters that can enrich analysis on EI research, and their impact on FP in the future. This could include and not limited to how do companies identify which EI to engage in as their CSR and how these firms can organize mutually beneficial cooperation through stakeholder dialogue that impact on the bottom-line. The latter statement takes into account the fact that companies engage in different business/sector activities i.e., manufacturing, mining and or agricultural. More research needs to be done on how they can engage in similar EI activities that can mutually benefit all different sectors and directly impact on FP.

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