Arabian Group of Journals (AGJ)

Accounting Research

International Journal of Accounting Research (IJAR)
Vol. 3, No. 1, 2017
Webpage: www.arabianjbmr.com/IJAR_index.php

ISSN: 2311-326X

ENVIRONMENTAL COST AND ITS IMPLICATION ON ENVIRONMENTAL REPUTATION IN NIGERIA: A STUDY OF CEMENT INDUSTRY

Segun Idowu ADENIYI
Department of Accountancy, Nnamdi Azikiwe University, Awka, Nigeria
Osazee Graham IMADE
Department of Accountancy, Nnamdi Azikiwe University, Awka, Nigeria

Abstract

Many manufacturing firms behave in a manner that suggests that they can achieve corporate goal even if environmental and social responsibility are trampled upon. This leads to environmental degradation. The main objective of the study is to examine environmental cost and its implication on environmental reputation of cement manufacturing firms. A survey design was used for the study. Questionnaire was administered to generate data. Researcher employed purposive sampling technique in selecting the sample frame. The study focus on cement Industry. The population of the study consists of Accountants and Distributors Cement products. The data collected from the questionnaire administered and hypotheses formulated have been statistically tested with the aid of SPSS 20.0 software. The statistical model chosen for the analysis of data is linear regression analysis and analysis of variance [ANOVA]. The study discovered that cement manufacturing firms do comply with environmental law and this has saved the firm from much environmental litigation. The result shows that the product carried by the firm's truck is very heavy. This trucks destroyed roads that they are plying regularly. We recommend that government should make law that will ensure the cement manufacturing firms contribute to building roads in the country.

Keywords: Environmental Cost, Corporate environmental reputation

1. INTRODUCTION

Sada and Odemerho (1998) observed that the unwise use of the natural environment due to ignorance, neglect, poverty, overpopulation and greed amongst others as led to the degradation of environment. Maintaining health environment received great attention in Nigeria since 1988 and this led to Decree 58 of 1988 that gave birth to the Federal Environmental Protection Agency (FEPA). This Decree was later amended in 1992 by Decree No. 59 of 1902, granting FEPA the responsibility of environmental protection, biological diversity, conservation and environmental technology and research. It was this decree that created the first standards of environment regulation in Nigeria. Each state within the country has Environmental Protection Agency to regulate the activities of firms on the use of environment.

Firms are now sensitive to their environment due to increase in awareness and business sustainability. This compels firms to comply with environmental laws and regulations, reduce costs, improve reputation and ensure the competitiveness and business viability. Auer (2010) suggested that knowledge about the environment cost and their challenges should be adequately accounted for, in compliance with standards; as a moral commitment to environmental stewardship and the desire to promote good relations with the residents of local communities.

Though, the corporate audience does demand for their products because of its necessity. However the damages that is been done to our roads is a concern about the firm's reputation.
Just as firms compete for customers, so also do they vie for reputational status. Corporate audiences routinely rely on the reputations of firms in making investment decisions, career decisions, and product choices (Dowling, 1986). Reputations signal publics about how a firm's products, jobs, strategies, and prospects compare to those of competing firms. Favorable reputations can therefore generate excess returns for firms by inhibiting the mobility of rivals in an industry (Caves & Porter, 1977; Wilson, 1985)
However in Nigeria, there is no policy mix for industrial environmental management. The researcher is not aware either the federal or state governments have introduced an economic instrument scheme, required firms to report on their pollutant discharge as part of a toxic or pollutant release inventory or to systematically report on their compliance with environmental regulations. Many manufacturing firms behave in a manner that suggests that they can achieve corporate goal even if environmental and social responsibility are trampled upon.
Cement manufacturing firms has fleet of trailers that they are using to transport their products to their customers across Nigeria. Most of their drivers do parked along the road, not an authorized trailer park, and cause heavy traffic for other road users. It is assumed that the heavy load been transported by this trailers do damage our roads. This leads to environmental degradation.
Both Federal and State governments impose fines and penalties on company whose employee are found guilty of violating environmental laws. Despite measures taken by environmental protection agency, trailer drivers of these cement manufacturing firms still continue to pollute our environment. It is this factor motivated this study to examine environmental cost and its implication on environmental reputation of cement manufacturing firms.

1.1 Objective of the study

The main objective of the study is to examine environmental cost and its implication on environmental reputation of cement manufacturing firms. The specific objective is to ascertain the effect of environmental fines and penalties on corporate reputation.

1.2 Hypotheses

The study will be guided by this hypothesis:

Ho: There is no significant relationship between environmental fines and penalties on corporate reputation.

1.3 Scope

The study will focus on environmental fine and penalties with environmental reputation of cement manufacturing firms in Nigeria. Dangote Cement manufacturing firm was selected for the study because her corporate headquarter is located in Lagos State and is listed in Nigeria Stock of Exchange. Dangote cement plc has factory at Ibese in Ogun State, Obajana in Kogi State and Gboko in Benue State.

2. PRIOR RESEARCH

Environmental costs consist of clean-up costs, costs of recycling materials or conserving energy, closure costs, environmental law compliance cost, capital expenditure and development expenditure. These costs are incurred in preventing, reducing or repairing damage to the environment and conserving resources. However, environmental losses are costs which bring no benefits to the business. Such as, fines, penalties, compensation, and disposal losses relating to assets which have to be scrapped or abandoned because they damage the environment (Klassen and McLaughlin, 1996,). Karpoff and Lott,(1993) added that, environmental costs are the environmental damage costs to the environment and its users as a result of alternative competing use. There is also the general concern that environmental cost reduces operating flexibility, slow productivity improvements in general (Joshi, 1997).
Konar and Cohen (2001) shown that good environmental performance, assessed by toxic emissions, has a positive consequence on the value of intangible assets of the economic entity. Austin et al., (1999) demonstrated a similar conclusion, that financial return is positively influenced by good environmental performance, expressed through various measures (toxic emissions). In accordance with the aforementioned research, Hart and Ahuja, (1996) showed that better financial performance can be obtained through emission

reduction. their study being based on accounting information for a period of two years. Similar conclusions were obtained by Filbeck and Gorman (2004), by comparing for a period of three years the size of environmental receipts fines and penalties that evidenced a positive connection among financial and environmental performance.

Study from the Czech Republic conducted by Earnhart and Lizal (2007) noted that improving profitability can be determinate by better environmental performance by lowering costs faster than revenues. Moneva and Ortas (2008) conducted a study on a sample of European entities from different countries using a multidimensional perspective and their findings reveal a positive relationship among environmental and financial performance, like many of the findings of previous researchers (Karpoff and Lott, 1993; Klassen and McLaughlin, 1996, Kumar et al., 2002; Schnietz and Epstein, 2005; Elsayed and Paton, 2005; van Beurden and Gossling, 2008). McGuire, Sundgren, and Schneeweis (1988) found that prior return on assets was highly correlated with a firm's reputation for social responsibility; which suggests that economic performance serves an important signaling function when publics construct reputational rankings of firms.

Jaggi & Freedman (1992) developed a pollution data base (from reports filed by individual firms with the US Environmental Protection Agency (EPA) after the Clean Water Act Amendments came into force) as a measure of social performance. Their findings indicate weak evidence that markets are not rewarding good pollution performance.

Roberts and Dowling (2002) analyzes if bad news in the form of environmental incidents affect firm value negatively. The results show that environmental incidents are associated with loss of value. Most of the studies conducted on this topic are related to developed economies such as USA and Europe, where the environmental awareness is at high level. Regarding developing countries, such as Nigeria, there are a few studies conducted because there is little awareness about environmental reputation among our firms. Hence, this study will help to fill the gap.

3. DESIGN AND METHOD

A survey design was used for the study with the aid of primary data through the administration of questionnaire. The population of the study consists of Accountants from Dangote Cement Plc. and Distributors of Dangote Cement Plc. Purposive sampling technique was employed in selecting respondents for the study. This sampling technique was used for convenience sake. Five Likert Scale was used for questionnaires. The score was assigned to Likert scale as follows: Very Correct (5), Correct (4), I am not sure (3), At times (2), and Not at all (1). 120 questionnaires were administered. While 86 questionnaires was correctly filled and returned.

Environmental cost will be measured by the following variables; fines and penalties, insurance for environmental liability and legal expenses. While firm's reputation will be measured by : warnings issued by regulator, Cases of litigation and attitude towards public goods (for example, roads).

The data collected from the questionnaire administered and hypotheses formulated have been statistically tested with the aid of SPSS 20.0 software. The statistical model chosen for the analysis of data is linear regression analysis and analysis of variance [ANOVA].

The model in its functional form was specified as follows:

EnCRep = f (Fpen).

An hypothesis was advanced for confirmation in this study.

The null hypothesis is; there is no significant relationship between environmental fines and penalties on corporate environmental reputation.

The model to be used to confirm this proposition is presented below:

EnCRep = B0 + B1 Fpen + ei ………………………………… (1)

Bi > 0; R2 > 0.

The Bi is a measure of the impact of fines and penalties with legal expenses on corporate environmental reputation.

Where:

EnCRep = Environmental Corporate Reputation

Fpen = fines and penalties, insurance for environmental liability

e = Error term;
B0 …….. Bi = Coefficient.

4. DATA ANALYSIS

Table 1: The sample size of 120 selected from the population was tabulated below:

S/N	Respondents	Total
01	Accountants.	45
02	Distributors	75
	Total	120

Source: field survey 2016

One hundred and twenty copies of questionnaires were purposively administered by the researcher. Eighty - six copies were successfully retrieved from respondents. This represents 72% of the number of questionnaire administered.

Table 2: Administration of questionnaire details was tabulated below:

S/N	Administration of questionnaire	Number of copies	Percentage (%)
01	Copies administered	120	100
02	Copies returned	86	72
03	Wrongly filed/unreturned copies	34	28

Source: field survey 2016

Test of Hypotheses

Ho. There is no significant relationship between environmental fines, penalties, legal expenses and corporate environmental reputation.

.

Table 3: Regression co-efficient for fines and penalties, insurance for environmental on Environmental Reputation.

Model	B	Beta	T = test
Constant	491.196		T=2.20, P=.115
Regulatory cost	.-660	-492	T=.-98,p= .400

Note: r^2 = .24, f(1,3) = .958, p= .400

a. Predictors: (Constant), fines and penalties, insurance for environmental liability

Source: SPSS version 20.0

Table 4: ANOVA result for fines and penalties, insurance for environmental liabilty on Environmental Reputation

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6182.623	1	6182.623	.958	.400[b]
	Residual	19364.577	3	6454.859		
	Total	25547.200	4			

a. Dependent Variable: Environmental Reputation

b. Predictors: (Constant), fines and penalties, insurance for environmental liability

Source: SPSS version 20.0

Regulatory cost explain 24 per cent of the variation experienced in company environmental reputation, but it is not significant because P >0.05.

Decision: Based on the analysis above, it shows that there is no significant relationship between fines and penalties, insurance for environmental liability and company environmental reputation. Therefore, the alternate hypothesis (Hi) is rejected while Null Hypothesis (Ho) is accepted.

5. DISCUSSION AND CONCLUSSION

The cement manufacturing firm does respond to environmental liability through her insurance firm. The study shows that 66.3 per cent of the respondents show that the company have care free attitudes towards responding to environmental liability. Though, 62 per cent of the respondents' shows that the cement manufacturing firms do comply with environmental law and this have saved the firm from much environmental litigation. Moreover, the study shows that the firm obtain her environmental permits and license as at when due and abide by the ruling of competent court of law.

83 per cent of the respondents show that the product carried by the firm's truck is very heavy. This trucks destroyed roads that they are plying regularly. 81 per cent of the respondents believed that those truck drivers have little or no respect to other road users. They parked their vehicles by the road sides that are designated as trailers park by the government. 81 per cent of the respondents show that company logistic officers have respect for environmental law therefore they respond to any warning notice received from environmental protection agency.

In conclusion, the environmental cost incurred by cement manufacturing firms does not affect their environmental reputation. The truck drivers' attitude towards the environment, especially our roads, does not portrait good image of the company. This makes people believe that the firms behave in a manner that suggests that they can achieve corporate goal even if environmental and social responsibility are trampled upon.

Based on the above findings and conclusion, the researcher recommends that the government should make law that will ensure the cement manufacturing firms contribute to building roads in the country. Their products is one the main materials for road building. If government makes law to force them in participating in building roads network in the country; it will make them to be more socially responsible to the community.

Dangote Cement Company said he is recruiting graduate drivers for her trucks. This is a good omen but not the main solution to care free attitudes of her truck drivers. There should be constant workshop and training for all truck drivers. Moreover, the drivers should not be parking by road sides and inconvenient other road users. There should be a designated truck park provided by the government or the company.

REFERENCES

Auer, M. R. (2010). Sense of place and the physical senses in outdoor environmental learning. In Teaching Environmental Literacy: Across Campus and across the Curriculum, Bloomington, IN: Indiana University Press, 142-149.

Caves, R. E. and Porter, M. E. (1977), "From entry barriers to mobility barriers: Conjectural decisions and contrived deterrence to new competition", *Quarterly Journal of Economics*, 91: 241-262.

Earnhart, D.and Lizal, L., (2007). Does Better Environmental Performance Affect Revenues, Cost or Both? Evidence from a Transition Economy. William Davidson Institute Working Paper Number 856, February 2007.

Filbeck, G.and Gorman, R.,(2004). The Relationship between the Environmental and Financial Performance of Public Utilities. Environmental and Resource Economics, 29, p. 137-154.

Hart, S. and Ahuja, G., (1996). Does it pay to be Green? An Empirical Examination of the Relationship between reduction and Firm Performance. Business Strategy and the Environment,

Jaggi, B. and Freedman, M. (1992), "An examination of the impact of pollution performance on economic and market performance: pulp and paper firms", Journal of Business Finance & Accounting, Vol. 19 No. 5, pp. 697-713.

Joshi, O. B. (1997). *The marginal effects of environmental regulations on the manufacturing sector*. Princeton: Princeton University.

Karpoff, J.M. and Lott, J.R., (1993). The reputational penalty firms bear from committing criminal fraud, Journal of Law & Economics, Vol. 36, p. 757-802.

Klassen, R., and McLaughlin, C., (1996). The Impact of Environmental Management on Firm Performance. Management Science, 42(8), p. 1199-1214.

Konar, S.and Cohen, M., (2001). Does the Market Values Environmental Performance?. Review of Economics and Statistics, 83(2), p. 281-289.

Kumar, R., Lamb, W.B. and Wokutch, R.E. (2002), The end of South African sanctions, institutional ownership, and the stock price performance of boycotted firms, Business and Society, Vol. 41, p. 133-65.

McQuire, J. A.,. Sundgren T. & T. Schneeweiss T. (1988). “Corporate Social Responsibility and Firm Financial Performance.” Academy of Management Journal, **31:** 854-872.

Moneva, J.,M. and Ortas, E., (2008). Are Stock Markets Influenced by Sustainability Matter? Evidence from European Companies. International Journal of Sustainable Economy, 1, p. 1-16

Roberts P.W and Dowling G.R. (2002). Corporate reputation and sustained superior financial performance. *Strategic Management Journal* **23**(12): 1077–1093.

Sada, P. O. & Odemerho, F. O. (1998). Environmental Management and Development, Introduction of the main issues, In Sada, P. O. and Odemerho, F. O. (Eds) Environmental Issues and Management in Nigerian Development. Ibadan, Evans Brothers.

Wilson, R. (1985). Reputations in games and markets, la A. E. Roth (Ed,), *Game-theoretic models of bargaining:* 65-84. New York: Gambridge University Press.

APPENDIX

Response to Questionnaires

	Very Correct	Correct	I am not sure	At times	Not at all	total
environmental fines and penalties Questions						
The company responds to environmental liability through her insurance firm	10	19	45	12	nil	86
The firm did not always complied with environmental law	05	28	21	09	23	86
The firm always have court case with environmental protection agency	12	08	30	31	05	86
The firm always obtained her permit without paying penalty for late payment.	35	23	17	10	01	86
The firm always paid fine when found guilty by environmental protection agency or court of law.	42	31	03	08	Nil	86
corporate reputation Questions						
The product carried by the firm's truck is very heavy. Therefore, it destroyed road.	46	25	08	07	Nil	86
Firm's drivers always parked at not designated truck park	50	20	07	08	01	86
Firm's drivers have little regards for other road users	39	27	01	04	15	86
Warnings are issued by regulator to management of the firm.	38	24	10	09	05	86
Logistic officers do not have respect for environmental law.	09	07	30	21	19	86

Source: field survey 2016