

## POLICY INSTRUMENTS, ADMINISTRATIVE EXPENSES AND ENVIRONMENTAL SUSTAINABILITY ACCOUNTING: AN ANALYSIS OF BUA CEMENT SOKOTO

By

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*Environmental policy instruments are measures put in place by the government to public or private organizations regarding the effects of human activities on the [environment](#), particularly those measures that are designed to prevent or reduce harmful effects of human activities on [ecosystems](#). This paper empirically examined the interaction effect of environmental policy instruments and administrative expenses on environmental sustainability accounting in BUA Cement Sokoto Plant. The paper used secondary sources of data from annual reports of BUA Cement Sokoto Plant, covering a period of 10 years (2012 to 2021). Auto regressive Distributive Lag (ARDL) Model was employed as the techniques of analysis using Eviews. The findings of the paper revealed that environmental regulation has negative and insignificant effect on environmental sustainability accounting in both the long run and short run with p-values of (0.1806 and 0.9541) respectively at 10% level of significance. A Decreased use of regulations effect the regulatory compliance on environmental sustainability accounting. The paper contributes to the literature on environmental regulations on environmental accounting. The study therefore recommends that environmental regulation should appropriately enforce in order to make polluters pay environmental damaged they might have caused.*

**Keywords:** Environmental policy instruments, administrative expenses, environmental sustainability accounting.

### 1. Introduction

**Environmental policy instruments are** measures put in place by the government to public or private organizations regarding the effects of human activities on the environment. These measures are designed to prevent or reduce harmful effects of human activities on ecosystems. Environmental policies are needed since environmental values are usually not considered in organizational decision making. There are two main reasons for that omission. First, environmental effects are economic externalities. Polluters do not usually bear the consequences of their actions; the negative effects most often occur elsewhere or in the future. Second, natural resources are almost always under-priced because they are often

assumed to have infinite availability. Together, those factors result in what American ecologist Garrett Hardin in 1968 called “the tragedy of the commons.” The pool of natural resources can be considered as a commons that everyone can use to their own benefit. For an individual, it is rational to use a common resource without considering its limitations, but that self-interested behaviour will lead to the depletion of the shared limited resource—and that is not in anyone’s interest. Individuals do so nevertheless because they reap the benefits in the short term, but the community pays the costs of depletion in the long term. Since incentives for individuals to use the commons sustainably are weak, government has a role in the protection of the commons.

As a result of environmental damage caused by pollution to the environment, something needs to be done about that in order to protect the environment and the people from pollution. Environmental challenges are expanding the pressure on governments around the globe to find ways to reduce environmental harm while minimizing damage to economic development. One of the biggest global issues in recent memory, according to some, is pollution and other environmental effects that contribute to climate change. According to academics, over the past two decades, businesses, governments, and global politics have increasingly prioritized "accounting" for environmental issues as a means of resolving negative environmental impacts and advancing toward sustainable solutions (Darabaris, 2008; Gray, 2010; UNCED, 2012). Governments have a range of tools at their disposal, including regulations, information programmes, advancement approaches, environmental appropriations and environmental taxes, notwithstanding the environmental problems are on the increase day by day. These government tools can be used to replicate the costs of pollution in values, which motivates polluters to take account of these values. This not only minimizes pollution, but it also does it in effective and gainful ways. Taxes also raise government income, often a welcome property, in particular because taxing pollution can often increase income at lower economic costs than taxing revenue or consumption in general (OECD, 2017). The findings of studies by Ladan (2012) and Paul et al. (2020) assume that Nigeria's environmental regulations are significantly disregarded, as doing so would necessitate a greater reliance on judicial action in interpreting and enforcing the pertinent environmental laws. If properly implemented and enforced when things are normal or in a perfect condition, the many laws passed by the federal, state, and local governments are sufficient to guide and preserve the environment.

In Nigeria, environmental sustainability reporting is voluntary applied by some businesses with certain incentives given by the government to those organizations that comply and report their environmental policies. Most of them do not disclose environmental sustainability report since is optional. This has resulted in businesses conducting their affairs without paying attention to the damage done to the environment. As highlighted by Neil and Darren (2002), voluntary initiatives is a new found interest that caused in their propagation across a range of issues and in a variety of nations, it is still believe that there is very little about their effectiveness or about how best to design them to achieve optimum efficiency and effectiveness. Due in large part to the recent introduction of this strategy and the absence of data collecting and reporting requirements in many such efforts, the empirical literature is quite scarce. The fact that far too little attention has so far been paid to measuring either their economic or environmental advantages is really one of the few things on which practically all experts of voluntary initiatives seem to agree. Harrison (2000) validates the study of Neil and Darren (2002) and reasonably concludes that; although policy evaluation is never straightforward, it is especially challenging with respect to voluntary programs for several reasons.

Ambient Air Pollution which is usually caused by activities of corporations has resulted in high mortality and morbidity rate as reported by World Bank. That is to say dangerous dust such as such as particulate matter (PM2.5) is particularly dangerous to human health and has resulted in 4.2 million and 4.5 million premature deaths in 2019 and 2020 respectively, accounting for almost 11% of all deaths in 2019. In the same year, it caused roughly 80,000 premature deaths in the West Africa region (Lelia et al., 2020). Nigeria, which had the largest number of early fatalities attributable to ambient PM2.5 in the area, and particularly Lagos, the nation's commercial metropolis and one of the world's fastest-growing megacities, are particularly affected by the issue. Despite growing concern about air pollution in Lagos, there is currently no reliable estimate of the impact of ambient air pollution, or a comprehensive air pollution control plan (Lelia et al., 2020).

In the North West Geopolitical zone in Nigeria, the magnitude of the pollution especially by cement companies is a source of concern. BUA Cement Company is one of the cement companies located in this geopolitical zone. It was confirmed that in relation to the heavy metal deposition near Sokoto Cement plant, it was discovered that as distance from the factory increased, the concentration of each heavy metal decreased. Further research revealed

that different heavy metals contributed differentially to the environment's pollution level, with the eastern region being more affected. All of the plant materials were found to contain elevated levels of mercury. Except for the southern region, where Lead (Pb) was the least abundant, Zinc (Zn) was the least. It was discovered that the Sokoto Cement Company produces trash and dust that pollutes the environment (Warrah et al., 2021). Furthermore, on the issue of administrative expenses, many companies are more concern on the cost of governance which includes the board expenses, staff welfare, income taxes, among others, while on the other hand neglecting the environment in which they benefit much from. This brings about the total or partial absence of environmental reporting standards, the dysfunction of the environmental management system, and the failure of our real estate industry to fully account for environmental costs incurred are additional serious issues. The environmental management system's excessive complexity, imbalance, bad administration, vast inequity, and weighted with an excessively high number of overlapping punishments for violation are depressing. Poor policies, inconsistent legal application, and little economic impact further worsen the system (Beredugo, 2014). The objective of this paper is to examining the interaction effect of policy instruments, administrative expenses on environmental sustainability accounting: Evidence from BUA Cement Sokoto Plant, Nigeria.

## **2. Literature Review**

### **2.1 Concept of Environmental Sustainability Accounting**

The concept of sustainability accounting continues to receive attention in the academic accounting literature (Lamberton, 2005), this becomes successful through to the release of the Sustainability Accounting Guidelines at the World Summit on Sustainable Development in Johannesburg in August, 2002 (Lamberton, 2005). However, the content of the sustainability accounting framework is derived from the various approaches taken by accounting researchers to link accounting to sustainability over the past 10 years (Lamberton, 2005). Gray is accredited with much of the conceptual development of sustainability accounting. Gray (1993) identifies three different methods of sustainability accounting; sustainable cost, natural capital inventory accounting and Input–output analysis.

### **2.2 Policy Instruments**

According to Dordrecht (2005), regulatory instruments are the standard instruments of government that are used to solve societal or economic conflicts. Since regulatory government interventions are legally binding rules that can be enforced with force, they go

beyond voluntary services or incentives. Environmental regulators have established strict guidelines for environmental users with the use of these tools. Regulatory instruments comprise all those regulatory government interventions which formally influence social and economic action through binding regulations (Dordrecht, 2005). Similarly, Clive et al. (2018) also define policy instruments as the techniques which can be used to overcome problems and achieve objectives. He further highlighted the ways to classify policy instruments that are used to protect the environment. Keohane et al. (1998) divide them into voluntary and mandatory instruments, while Panayotou (1994) place them into regulation based and incentive-based, or command-and-control and economic instruments. The method preferred here as highlighted by Clive et al. (2018) is divided into four broad categories: regulatory, economic, voluntary, and education and information.

### **2.2.1 Regulatory Instruments**

To achieve environmental protection goals, regulatory tools place legally binding constraints on economic agents. Because they forbid or demand specific acts (i.e., the command), while utilizing various forms of punishment to encourage compliance, they are also referred to as "command-and-control" systems (i.e., the control mechanism). Environmental regulations can take many different forms, including; prohibitions on specified activities (e.g., discharging pollutants into a water body or the atmosphere, or taking a threatened species); requirements to obtain a governmental approval (or permit) before undertaking a specified activity (e.g., pollution permits, operating licenses, and development approvals); requirements to follow certain procedures when carrying out specified activities (e.g., to use certain equipment, abide by operating standards, or to monitor pollution emissions); and requirements to undertake specified actions that are deemed to be environmentally beneficial (e.g., weed control in agricultural areas) (Clive et al., 2018).

### **2.2.2 Economic Instruments (Market-Based Measures)**

According to Clive et al. (2018) economic instruments or market-based instrument can be defined as mechanisms that force economic agents to internalize all or part of the social costs associated with environmentally harmful activities and that rely on market forces to promote efficiency. In doing so, they aim to use market forces to enhance resource allocation while increasing costs on those who harm the environment and rewarding those that improve environmental results. (Some scholars classify subsidies as economic instruments; however, since they are voluntary and economic agents are not required to

internalize the social costs, they are better categorized as voluntary instruments. Clive et al. (2018) further elaborates that this approach to environmental protection is usually associated with environmental economics, a school of economic thought that is a subdiscipline of neoclassical economics. Environmental economics contend that externalities—impacts that one individual or group of people unintentionally suffers without receiving payment or recompense as a result of the activities of another—are the root cause of environmental issues. Externalities make it impossible for markets to ensure the efficient distribution of resources. The price that consumers pay for the producers' outputs, for instance, won't accurately reflect the whole societal cost of the transaction if producers release pollution into the environment without paying for it. There will be an excessive output and consumption of the pertinent good or service as a result. If producers are forced to internalize the social costs associated with the air pollution, there would be a more efficient tradeoff between air pollution and output, leading to higher net social welfare (Clive et al., 2018).

### **2.2.3 Voluntary Approaches**

According to Clive et al. (2018), a voluntary approach is any method or program designed to protect the environment where relevant economic agents can choose whether or not to participate; in other words, participation in the program is voluntary and there are no clear consequences for not participating, though incentives may be used to encourage participation. There are basically three broad types of voluntary approach as highlighted by Clive et al. (2018) to include: unilateral initiatives where polluters act without direct government participation to protect the environment. The fact that unilateral projects are started, created, and managed by polluters is one of their distinguishing characteristics. As a result, government engagement is typically minimal, which makes it unclear if unilateral actions are a means of implementing policy or a form of market behavior. However, governments can promote unilateral actions by urging them on polluters or threatening to impose strict regulations. There are also three main forms of unilateral approaches: voluntary adjustment of internal processes (e.g., under an environmental management plan); industry self-regulation (e.g., codes of conduct); and environmental certification schemes (e.g., organic producer associations)(Clive et al., 2018).

## 2.3 Theoretical Framework

### Double Dividend Hypothesis:

The school of thought (such as Takeda (2007; Lu et al (2010) Li and Lin (2013)) of the double-dividend theory hypothesize that environmental taxes have the ability to improve the environment as well as the economic efficiency simultaneously. The double-dividend theory (Pearce 1991), also known as ecological tax reform (Von Weizsäcker and Jesinghaus 1992), would use the revenue raised under any of these theories to reduce some existing tax burden, such as taxes on labor that may be dampening the economy. The environmental tax would produce the first environmental dividend, and the tax relief would produce the second economic dividend (Milne 2003). All these theories share, in general terms, the idea that adjusting the economic calculation can result in more environmentally beneficial and economically efficient results. The primary motivation is to achieve a given environmental benefit by subsidizing activities that otherwise would not occur, not to make the market more economically efficient or rational. If costs were fully internalized, the demand for these measures might decline. Green tax decreases also have a very different fiscal effect than tax increases, obviously reducing the flow of revenues to the government rather than increasing it. This difference can have significant political consequences. This study is therefore hinged on the double dividend theory based on the fact that theory brings about double advantage of minimizing the environmental damage and also brings about revenue generation.

## 3. Methodology

The longitudinal technique was used in this study since there was enough data for analysis on one hand, and given the time series data, the important variables over the years 2012-2021 on the other. The information was gathered mostly from secondary sources and was comprised of environmental sustainability accounting disclosure of BUA Cement Sokoto Plant, regulations using fines and penalties as proxies, voluntary approach using corporate social responsibility as proxy, board of directors expenses, company income tax and publicity and advertisement as proxies for administrative expenses which were collected from the BUA Cement Sokoto Plant annual reports and accounts other relevant sources. Inferential statistics were used in testing the section four of this paper in order to summarize the characteristics of data set and to ascertain whether the data is generalizable to the broader population.



### 3.1 Model Specification

Functionally, the model to this is specified thus;

$$EVD = f (CSR+REG+CIT + PAA +BOD )$$

In econometric terms, the model is specified as;

$$EVD_t = \beta_0 + \beta_1 CSR_{t-1} + \beta_2 REG_{t-1} + \beta_3 CIT_{t-1} + \beta_4 PAA_{t-1} + \beta_5 BODE + \mu_t \dots\dots\dots(4.4)$$

Where;

- EVD = environmental disclosure
- CSR= corporate social responsibility
- RGL= regulations (fines)
- CIT = company income tax
- PAA= publicity and advert
- BODE= board of directors’ expenses
- $\mu_t$  = error term

## 4. Results and Discussions

### 4.1 Results of Unit Root Test

**Table 1: Unit Root Tests (Augmented Dickey-Fuller and Phillips-Perron)**

Variables	Augmented Dickey-Fuller		Phillips-Perron	
	Level	1 <sup>st</sup> Diff.	Level	1 <sup>st</sup> Diff.
LEVD	-4.374806**	-4.741722*	-4.374806**	-14.23227*
LCSR	-0.370220	-5.464450*	-0.861018	-4.757473*
LREGF	-0.4314848**	-2.273693	-3.44202***	-7.794499*
LCIT	-0.666673	-3.886746**	-0.666673	-3.875633**
LPAA	-0.887771	-3.924135**	-0.977615	-3.923095**
LBODE	-1.424089	-4.317268**	-1.312273	-4.577882*

Source: *Author’s computations using Eviews 9. (see appendix II)*

Note: \*, \*\* and \*\*\* indicates significant at 1%, 5% and 10% respectively (the coefficients without asterisks signified evidence of non-stationary).



To confirm whether the variables are stationary or not a unit root tests were carried out using Augmented Dickey-Fuller and Phillips-Perron testing approaches and the results is presented in Table 1. Result demonstrated that environmental disclosure is stationary at level value (I(0)) and after first difference (I(1)) for both ADF and P-P tests, while corporate social responsibility is stationary at after first difference (I(1)) for both ADF and P-P. However, regulations are stationary at level value for ADF and are also stationary at level value and after first difference as indicated by P-P test. Company income tax, publicity and advertisement and board of director’s expenses are all stationeries after first difference for both ADF and P-P tests. From the results we can deduce that the series exert different order of integrations with some are stationary at level value and others are stationary after first difference. This is also proving to us that the best method that is suitable to handle the result of this nature is ARDL approach. The study further conducted bound test in order to find the presence of cointegration among the variables.

**4.2 ARDL Bounds Tests for Consumption Model**

**Table 2: ARDL Bounds Test**

Test Statistics		
F-statistics	Critical Value Bounds	
	I(0)	I(1)
<b>6.51</b>		
Significance Level		
10%	2.08	3
5%	2.39	3.38
1%	3.06	4.15

Source: *Author’s computations using Eviews 9. (see appendixIII)*

From the Table 4.3, it is evident that there is an existence of long run relationship at 10% level of significance between environmental disclosure, corporate social responsibility, regulations, company taxes, and publicity and advertisement and board of directors’ expenses. This is because; the F-statistic (6.51) is greater than the lower and middle critical value bounds at 1% or 5%. Therefore, the null hypothesis of no long run relationship (cointegration) cannot be accepted. While the alternative hypothesis of existence of long run relationship can be accepted. The presence of long run relationship permitted the study to generate the long-run and short-run relationships among the variables. The result of long run relationship is in Table 4.3.

**4.3 Long Run Coefficients of the ARDL for Consumption Model**

**Table 3: Long Run Coefficients of the ARDL**

<b>Dependent Variable: Environmental Sustainability Accounting</b>				
<b>Variables</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistics</b>	<b>Prob.</b>
LCSR	1.585749	0.501146	3.164243	0.0090
LREGF	-1.180192	0.825488	-1.429690	0.1806
LCIT	4.190805	2.012379	2.082513	0.0614
LPAA	-3.220740	1.665813	-1.933434	0.0793
LBODE	-0.661726	0.899349	-0.735784	0.4773
C	-7.899694	16.527632	-0.477969	0.6420

Source: Author’s computations using Eviews 9. (See appendix V)

The result in Table 4.3 shows that, there is positive and statistically significant relationship between corporate social responsibility and environmental accounting. An increase in corporate social responsibility leads to increase in environmental accounting. This means that a 1% increase in corporate social responsibility will lead to 1.59 % increase in environmental sustainability and accounting. From the result, it is also indicated that the null hypothesis will be rejected; this is because corporate social responsibility has a significant effect on environmental accounting in the long run at 10% level.

Furthermore, there is negative and statistically insignificant relationship between regulations and environmental accounting, meaning to say that an increase in environmental regulations does not have any significance influence in environmental sustainability accounting in the long run. This means that a 1% increase in environmental regulations without appropriately paying the fines will lead to 1.1% decrease in environmental sustainability. Thus, the relationship is not statistically significant. From the result, it is also indicated that the null hypothesis cannot be rejected; this is because the regulations has no significant effect on environmental sustainability and accounting.

In the case of company income tax, there is positive and statistically significant relationship between company income tax and environmental accounting. This means that an increase in company taxes will lead to significant increase in environmental sustainability accounting if properly utilized on the sustenance of the environment in the long run, meaning to say that a 1% increase in income tax rate will lead to 4.2% increase in environmental

sustainability and accounting. From the result, it is indicated that the null hypothesis can be rejected; this is because the company taxes has positive effect.

In the case of publicity and advertisement, there is negative and statistically significant relationship between profit before taxes and environmental accounting. This means that an increase in profits before taxes will lead to significant increase in environmental damages in the long run, the more profit they earn the more vulnerable to the environment it becomes, unless otherwise adequate provisions are made in protecting the environment. This however means that a 1% increase in profit before tax rate will lead to 3.22% decrease in environmental sustainability and accounting. From the result, it is indicated that the null hypothesis can be rejected; this is because the profit after tax has significant effect in the long run. Furthermore, board of directors’ fees has positive and statistically insignificant influence between board expenses on environmental accounting. This means that board expenses are giving high priority than giving back to the environment. 1% increase in board expenses will lead to 0.66% decrease in environmental sustainability and accounting. Thus, the result is not statistically significant at 10% level. Therefore, the null hypothesis can be accepted.

**4.4 Short Run Coefficients of ARDL for Consumption Model**

**Table 4: Short Run Coefficients of the ARDL**

<b>Dependent Variable: D (Environmental Sustainability Accounting)</b>				
<b>Variables</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistics</b>	<b>Prob.</b>
D(LCSR)	2.157354	0.935525	2.306037	0.0416
D(LREGF)	0.027567	0.468118	0.058890	0.9541
D(LCIT)	4.447871	2.466549	1.803277	0.0988
D(LPAA)	-3.522293	2.184200	-1.612623	0.1351
D(LBODE)	-0.341984	0.757751	-0.451315	0.6605
ECM(-1)	-0.937238	0.299654	-3.127735	0.0087

Source: Author’s computations using Eviews 9. (See appendix IV)

The result in Table 4.4 shows that there is positive and statistically significant relationship between corporate social responsibility and environmental accounting. An increase in corporate social responsibility leads to an increase in environmental sustainability and accounting. This means that a 1% increase in corporate social responsibility will lead to

2.1 % increase in environmental sustainability and accounting in the short run. From the result, it is also indicated that the null hypothesis will be rejected; this is because corporate social responsibility has a significant effect on environmental accounting in the short run.

Moreover, there is positive but statistically insignificant relationship between regulations and environmental accounting, meaning to say that an increase in violating regulations and standards shows slight effect on the environmental sustainability accounting because of the little amount paid as fines and penalties in the short run. This means that a 1% increase in violating environmental regulations without appropriately paying the fines will lead to 0.03% increase in environmental sustainability. Thus, the relationship is statistically insignificant. From the result, it is also indicated that the null hypothesis cannot be rejected; this is because the regulations has insignificant effect on environmental sustainability and accounting.

In the case of company income tax, there is positive and statistically significant relationship between company income tax and environmental accounting. This means that an increase in company taxes will lead to significant increase in environmental sustainability and accounting if properly utilized on the sustenance of the environment in the short run. Meaning to say that a 1% increase in income tax rate will lead to 4.45% increase in environmental sustainability and accounting. From the result, it is indicated that the null hypothesis can be rejected; this is because the company taxes has significant positive effect.

In the case of publicity and advertisement, there is negative and statistically insignificant relationship between profit before taxes and environmental accounting. This means that an increase in profits before taxes will lead to significant increase in environmental damages in the short run, the more profit they earn the more vulnerable the environment it becomes, unless otherwise adequate provisions are made in protecting the environment, this however means that a 1% increase in profit before tax rate will lead to 3.52% decrease in environmental sustainability and accounting. From the result, it is indicated that the null hypothesis cannot be rejected; this is because the profit after tax has no effect in the short run.

Furthermore, board of directors' fees has positive and statistically insignificant relationship between board expenses on environmental accounting. This means that board expenses are giving high priority than giving back to the environment. 1% increase in board

expenses will lead to 0.34% decrease in environmental sustainability and accounting in the short run in NWN. Hence, the result is not statistically significant and therefore, the null hypothesis can be accepted. However, the result shows that the coefficient of Error Correction Model (ECM) has the correct sign that is negative, less than one, and statistically significant. This explains that when there is any distortion in the economy from the environmental angle, the system will correct itself from the short run to the long run at the speed of 93%.

#### 4.5 Post Estimation Tests for Savings

**Table 5: Post Estimation Tests**

Tests	F-statistics	Prob.
Autocorrelation Test	2.209846	0.1646
Heteroscedasticity	0.237810	0.9663
Normality	7.16865	0.027755

Source: Author's computations using Eviews 9.

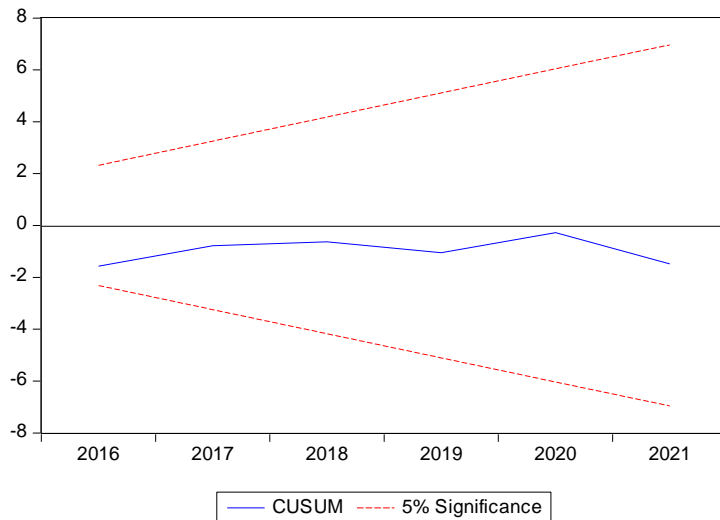
Post estimation tests were conducted using three approaches namely; Breusch Godfrey Serial Correlation LM test, Heteroscedasticity test of Breusch Pagan Godfrey and Normality test of Jarque Bera in order to find out the consistency of the result. The result of the autocorrelation test in Table 4.5 indicates that the series or model is free from the problems of serial correlation or autocorrelation. This is because; the p-value of f-statistics is not statistically significant even at 10%. Therefore, the null hypothesis of no serial correlation will be accepted. Similarly, the result of heteroscedasticity test also shows that the null hypothesis of non-constant variance will be accepted, because the p-value of f-statistics in heteroscedasticity test is not statistically significant. Finally, the normality test result indicates that the p-value of f-statistics is not statistically significant because the variables in the models are normally distributed, as such the null will be accepted.

#### 4.6 Stability Tests for Environmental Sustainability Accounting Model

To confirm the stability of the model, this study conducted stability tests through the use of cumulative sum of recursive residual and cumulative sum of square of recursive residual.

**4.7 The Cumulative Sum of Recursive Residual Test**

The result of the test from Figure 4.1 shows that the model is stable, because the recursive errors fall within 5% critical lines of the CUSUM test.



**Figure 4.1 Stability Test**

**4.8 The Cumulative Sum of Square of Recursive Residual Test**

The result of the test from Figure 4.2 displays that the model is stable, because the recursive errors fall within 5% critical lines of the CUSUM of Squares test.

**4.9 Discussion of Findings from Secondary Source of Data**

The relationship between corporate social responsibility and environmental disclosure was determined using the Autoregressive Distributed Lag (ARDL) technique, which proved that the variables were cointegrated (Environmental Disclosure and CSR). As a result, the ARDL results show that corporate social responsibility and environmental disclosure have a statistically significant positive connection. The findings of Mercedes (2015), Shafat and Nasir (2015), and Kaoje et al. (2020), who also discovered a favorable association between CSR and environmental performance, are consistent with this outcome. The estimated results on regulations and environmental disclosure using ARDL also shows that there is negative relationship between REGF and environmental disclosure in NWN. This is in line with the findings of Adeoluwa (2018), Ifesinalhi (2018), Olusola (2020), Akinulore and Akinsulore (2021) and Abdullahi and Babangida (2021).

On the relationship between company income tax, publicity and advertisement and board of directors expenses on environmental disclosure, the estimated results showed a statistically positive relationship between CIT and environmental disclosure, this is in consistent with the findings of Abbas et al. (2013); Memon et al. (2010); Smith et al. (2007); Zeitun and Tian (2007) and Krishnan and Moyer (1997). However, on the relationship between profit before tax and board of directors' expenses on environmental disclosure, the estimated results show a negative relationship. This is not in consistent with the findings of Abbas et al. (2013); Memon et al. (2010); Smith et al. (2007); Zeitun and Tian (2007) and Krishnan and Moyer (1997).

## **5. Conclusion and Recommendations**

The study looked at how administrative costs and policy tools affected environmental sustainability accounting. The study made use of secondary data from the BUA Cement Sokoto plant's annual reports and accounts, which covered the ten-year period from 2012 to 2021. The paper comes to the conclusion that, despite focusing a lot on other factors, corporate social responsibility has a beneficial effect. Additionally, given the harmful impact on the environment, it is concluded that restrictions are not being properly upheld. The article comes to the conclusion that the other administrative variable; publicity and advertising and board of directors spending are prioritized highly, which is what has a detrimental impact on the environment. The following suggestions are made in light of the study's findings and conclusion: It recommended that governments should introduce mandatory approach for polluters to account for the damages they might have done to the environment. This paper also recommends proper enforcement and total compliance of regulations by the polluters or introduces another instrument like environmental taxes to serve as a substitute for environmental regulation and exhorts polluters to stop their poor behavior. Finally, it is recommended that administrative expenses like board of director's expenses and publicity and advertisement should not be given much priority than the environment.



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