Effect of Green Accounting on Firm's Profitability Among Manufacturing Industries In Nigeria

Erhimu Dickson

Department of Accountancy,

Enugu State University of Science and Technology,

Enugu State, Nigeria.

08033588674

dicksonerhimu1@gmail.com

Abstract

Research purpose: The study examined the effect of green accounting on firms profitability among manufacturing industries in Nigeria.

Methodology: Ex Post-facto research design was used for the study. The secondary data used in the study covered different manufacturing Companies and was sourced from the Nigeria Exchange Group for the period of 2012-2021. The data were analyzed using multiple linear regression.

Findings: From the analysis of the data and test of hypothesis result H_o^1 shows that there is no impact of environmental domestic products on growth of an enterprise while in H_o^2. The study also accepts the null hypothesis and rejects the alternative to show that the independent variable "net accumulation of enterprise product of economic assets does have an insignificant impact on the growth of an enterprise and finally in H_o^3.

Conclusion: It concludes that there is a significant impact of the Independent variable "net accumulation of non-produced natural asset" on the dependent variable "growth of the enterprise".

Recommendations: It is on this account that the study recommends that that enterprise should make sure they have appropriate and well-designed green accounting design to be able to stand that test of time, while following the new trends in terms of technological advancement and globalization. Management and Staff

should be well trained as to seeing the importance of developing green accounting in the organization.

Keywords: *Green Accounting, Firms Profitability.*

1.0 Introduction

Green accounting is a type of accounting that attempts to factor environmental cost into the financial result of its operation (Sudhamathi and Kaliyamoorthy, 2018). It has been argued that gross domestic product ignores the environment and therefore decision makers be it corporate, Government and others need a revised model that will incorporate green accounting in their everyday operation. Green accounting (also known as environmental accounting) seeks to better measure sustainability by expanding gross measures of national welfare (such as product, investment, etc) to include non-market values, in particular ones associated with environmental goods and services (Sudhamathi and Kaliyamoorthy, 2018).

Green accounting is a subset of accounting that combines both economic and environmental information to measure, communicate, and interpret a company's or nation's financial activity (Kumar et al. 2016). First used by economist and professor Peter Wood in the 1980s (Ryoo and Koo 2013), green accounting provides a framework for identifying resource use and communicating costs related to a company's environmental Effect. Given the importance of environmental protection and the need to promote sustainability, green accounting is becoming increasingly important (Joshi and Rahman 2019). Green accounting also seeks to incorporate costs and benefits of environmental protection and accounting systems such as gross domestic product.

Historically, the idea of green accounting started in the early 1970 to 1980s USA when it was known as a management tool (Alka, 2016) but the present situation of green accounting evolved from sustainable accounting and has been receiving continuous attention in the academic accounting literature since the early 1990s. Gradually, it spread to other countries like Europe where its concept fully began to develop fully starting with Norway affected by the publication of Limits of Growth (meadows et al 2012) with time, the Ministry of Environment, Norway developed statistics for the measurement of nature resources as a tool to better manage natural resource. Where

there is fear that their resource will be depleted due to overexploitation and from there the Danish government adopted it as a result of the oil crisis of 1977 which began to make calculations of energy reserves and saving as well as other countries of the world. Therefore the system of green accounting makes it easier on the life cycle of resources which help to recognize organization or enterprise sustainability. This is to say it tries campaigning among corporations, employees, the community, and governments dealing with the effect and benefits of activities to care for the environment in order to enable enterprise Profitability. Green accounting helps organizations to identify, collect, calculate, analyze material and energy-related costs; internalize reporting and use information about environment costs to provide other cost-related information in the decision making process, with a view to adopting efficiency. Therefore, in this 12th century enterprises are faced with a lot of challenges that threaten their green accounting process and benefits that can ensure that enterprises are able to grow significantly in response to environmental challenges. This is why this study is aimed at investigating the Effect of green accounting on the Profitability of an enterprise.

Environmental pollution is one of the problems of the contemporary world at the international and regional levels, even in the developed industrial countries and developing countries like Nigeria. Most countries has adopted different measures to be able to control the effect of environmental problem but the problem is that the introduction of conventional national income accounting that is meant to address this problem so it does not affect the Profitability of enterprises of which does not measure the depletion of natural resources and the degradation of the environment which in return have significant negative impact on performance of enterprise. Also the cost involved in controlling the environment problem, lack of skilled manpower, lack of set rules about the environmental accounting, inadequate environmental accounting standard, low adoption of environmental accounting, and no specific principles of environmental accounting have all contributed to serious problems in the management of enterprises that guarantee the Profitability of enterprises. It is on this note that this study is focused on investigating the Effect of green accounting and enterprise growth.

1.3 Objectives of The Study

The major objective of the study is to examine the effect of green accounting on Firms Profitability among Manufacturing Industries in Nigeria.

Other Specific objectives are:

1. To ascertain the effect of environmental domestic products on the Profitability of an enterprise
2. To determine the effect of net accumulation of enterprise produced economic assets on the Profitability of an enterprise
3. To ascertain the effect of net accumulation of non-produced natural asset on the Profitability of an enterprise

1.4 Research Hypotheses

The following research hypotheses will be posed in their null format in order to test the above research questions:

H_o^1: There is no significant Effect of environment domestic product on the Profitability of an enterprise

H_o^2: Net accumulation of produced enterprise economic asset does not have any significant Effect on the Profitability of an enterprise

H_o^3: There is no influence of net accumulation of non-produced natural assets on the Profitability of an enterprise.

1.5 Significance of The Study

This study will be of theoretical and practical benefits to all of the following parties.

i. Theoretically, the study will add to the existing field of knowledge on Green accounting and close the gap in knowledge that has not been covered by other fellow researchers prior to this time.
ii. The Enterprise: Practically, the study will be of benefit to the Firms especially in areas of Training and Research of Staffs of the enterprise.
iii. Academicians: It will stand as reference materials for academicians, Lecturers and other researchers.
iv. Government & Regulatory Agencies: Others that it will be of benefits to would be the Government especially for policy formulation, Regulatory agencies and competitors.

2.0 Review of Related Literature

2.1 Conceptual Review

2.1.1 Green Accounting

Srinivasa (2014) defined green accounting as the environmental accounting which accounts for any charges and as well the benefits that arise from changes to an enterprise goods or methods where change also involve a corresponding change in ecological influences.

US Environmental protection agency (2015) opined that green accounting means that environmental accounting of the entire domain of accounting for the environment which includes financial accounting reporting and auditing as well as environmental management accounting.

The Ministry of Environment, Environmental Accounting Guidance (2002), also defined environmental accounting as aimed at achieving sustainable development and maintaining a favorable relationship with the community pursuing effective efficient environment conservation activities.

Bureau Meteorology (2013) defined green accounting as the environment accounts which are strongly structured tables that provide organized information for clearly defined decision making purposes for enterprises.

Therefore, from the above definitions, green accounting can be said to be the accounting which considers environmental factors that may affect the activities of an enterprise and as well affect their performance and growth.

Green accounting is an accounting system that considers the environmental costs of a company's activities and reflects them in financial statements (Tu and Huang 2019). It helps companies to evaluate their environmental performance and integrate environmental considerations into their decision making process (Maama and Appiah 2019). Green accounting includes traditional financial accounting principles and the use of non-monetary indicators such as resource depletion, pollution, and ecosystem degradation. This type of accounting helps identify the actual cost of a company's activities, including the environmental costs that are often overlooked in traditional accounting. In practice, green accounting can take many forms, such as measuring the amount of greenhouse gas emissions or water usage, tracking the amount of waste produced, or assessing the environmental Effect of a product or service (Tu and Huang 2015). By identifying and quantifying environmental Effects, companies can then take

steps to reduce their adverse effects on the environment and identify opportunities for cost savings and efficiency improvements.

2.1.2 Enterprise Profitability and Growth

The enterprise growth is used to describe a development process of an enterprise from small to big and from weak to strong both structurally and financially. The meaning of development exceeds the meaning of growth, and it includes not only the growth process of things, but the generation stage growing out of nothing before growth and the periodic process of the stage, i.e. the cycle process going round and round. However, enterprise growth is a complex adjustment process which is different to the simple scale extension. It takes the balance adjustments of various relations in the interior and the exterior of the enterprise as the essential character, and it is the process of balanced development from unbalanced to balance, and from lower balance to higher balance. Therefore, the meanings of enterprise growth is the development process that enterprise keeps the tendencies of balanced and stable growth of total performance level (including output, sales volume, profit and asset gross) or keeps realizing the large enhancement of total performance and the stage spanning of development quality and level (Sun, 2004, P.66-69). In the meanings of enterprise growth, the following three connotations are contained. (1) The time property of enterprise growth. The premise to analyze the growth of enterprise is a long period in which the long-term development tendency and process of enterprise are observed, and it is not the status of enterprise in a certain time point. (2) The dynamic property of enterprise growth. The growth of enterprise is not a stable process without troubles. In the growth process, enterprise always transits from balance to unbalance, and the result is to transit from unbalanced to balance and from lower balance to higher balancer through unbalance. (3) The enterprise growth is the unification of quantity and quality. The increase of quantity is embodied in the extension of enterprise scale such as the increases of sales volume, market share, production value, profit and employee. And the growth of quality is embodied in the enhancement of enterprise quality, which includes the technological innovation ability from immature to mature production technology, the optimal efficiency of investment and output, the organizational innovation and reform.

2.1.3 Environmental Domestic Product and its Effect on Growth of Enterprise

Globally, the small, micro and medium sized enterprise (SMME) sector generates substantial employment and economic output. These dynamic enterprises contribute to economic development in several ways: converting innovative ideas into economic opportunities, revitalizing social and productive networks, and increasing productivity. Research has shown economic growth and as well as good environmental domestic product in a suitable environment lead to growth of enterprise (Heather et al, 2012).

In both developed and developing countries like Nigeria, small and micro enterprises account for the vast majority of enterprises. Because developing countries are typically more focused on small-scale production, the share of overall employment by small and micro enterprises tends to be higher and good green accounting designs that provide a comfortable environment for enterprises will affect the growth of enterprises positively (Heather et al, 2012). Studies in five African countries found that these small scale businesses generate nearly twice the level of employment that registered large scale enterprises and public sectors do (Heather et al, 2012).

This is why the development environmental community has recognized that there may be opportunities to leverage the ingenuity and drive of entrepreneurs to reduce poverty in developing countries. In "Making poor Nations rich: Entrepreneurship and the process of Economic Development," eminent scholars argue that entrepreneurship may well contain the answer to eradicating poverty if only adequate environmental conditions are provided.

According to Ayyagariet al (2017) promotion of the SME enterprise sector through appropriate environmental green Accounting is a core element to foster employment, economic growth, and poverty alleviation. Beck, Demirguc-kunt, & Levine (2015) also found a large SME contribution to employment. This is why the World Bank (2014) stated that the contribution of enterprise in suitable environments in developing countries have a positive significant effect on growth of the enterprise and the economy of the country. Furthermore, Stein et al. (2010) highlighted that SMEs in developing countries like Nigeria represent approximately 45 percent of employment and approximately 33 percent of GDP. Based on a sample composed of 104 developing countries, Ayyagariet al. (2011) stated that small firms (less than 20 employees)

contribute around 20.21 percent to total permanent, full-time employment. When small firms and medium firms (20 to 99 employees) are considered together, the mean employment share of SMEs is 47.94 percent which is comparable to the contribution made by large firms. Furthermore, Tybout (2010) concluded that the number of small firms not only negatively correlates with per capita income levels across countries but also within countries through time. Beck et al. (2015) found a robust relationship between the size of the SME sector and economic growth; the latter include their determinants as an aggregate index of the overall business environment. However, the World Bank (2013) suggested that regressions for reverse causation erode the significance of the relationship. Subsidies to SMEs are thought to be a poverty alleviation tool because the promotion and development of small businesses may create scenarios for low income people to participate in the economy.

2.1.4 Effect of net accumulation of enterprise economic asset and net accumulation of non-produced natural asset on growth of enterprise

Traditional accountings introduce terms like fixed, current, Deplete-able, normal and even lucky assets. But due to environmental sciences it provides natural and environmental assets. In the traditional balance sheet (also known as statement of Financial Position) one can realize that the majority of assets are manmade assets and in some cases, intangible assets such as (petroleum, trees e.t.c) despite the full control over such assets (Igbodoet al, 2018). For instance, a hotel overlooking a bay or a river will have a competitive advantage and thus more revenues compared to other hotels downtown in a crowded area. The researcher believes that a separate item for environmental assets should be in the financial statements especially for these organizations that are dependent on environment and natural environment stock in generating its revenues. In addition, nowadays in many countries it is common to see a pollution bond (environmental asset) possessed by an organization that may not be in need for it any longer as a result of complying with environmental regulation so it sells the bond to other organizations that need it (Igbodo et al.,2018). Therefore, net accumulation of assets of an enterprise can be in either the environment or natural assets.

(a) Environment Assets: This represents the environment asset possessed by an organization as a result of environment protection regulation and /or according

to environmentally voluntary activities. In fact, such assets are parts of man-made assets such as environmental protection equipment, pollution bonds. Etc. It is worth mentioning that they might be non-current assets or current assets. Even that the same assets may be considered fixed in one organization while current in the other. Hence, distinguishing between natural asset and environmental asset in category is vital.

(b) Natural assets: Showing natural assets in a separate category is important as those assets represent the real wealth in some organizations, sectors, and countries. Besides that, they are the wealth of the next generations. Showing environmental assets in a separate item gives an idea for all concerned parties about the value of environmental asset and environmental capital for environmental protection at any level (company, sector, governorate, nation-wide). Thus, Accounting for green accountings distinguish between environmental and natural assets and also seek to answer questions like what is the value of the environmental assets? What is its return? Does its value increase or decrease?

Chief among the external constraints to SMEs growth on enterprise net accumulation of both natural assets and environmental assets is the issue of limited access to business financing. In response to such challenges, many governments have tirelessly worked on establishing other mechanisms of financing SMEs enterprises, whose interest rates and loan conditions are usually unattractive. This is done in order to provide an enabling environment for the growth of enterprises. Nigeria remains one of such countries that have pursued other schemes to widen SME enterprise access to finances. However, a study by Azende (2011) reported the significant difference between the levels of access to financing from commercial banks and from the other avenues, prominently the equity investment schemes. A related crucial debate in business and economics literature, of which conclusions have always been made to be negative, is the relationship between interest rates and economic growth as part of green design Accounting for enterprise. It is generally and widely held view that high interest rates restrict the levels of borrowing, not only by SMEs, enterprises but the whole spectrum of the private sector. A study by Hansen & Seshadri (2013) on social Security Trust Funds in the United States of America revealed a correlation of -0.20 between real interest rates and GDP growth. The study employed both vector

auto-regressions and non-parametric weighting in its estimation and both methods yielded similar results. A data series spanning 111 years was constructed and the measurement of the robustness of the estimations was extended to sub-samples.

In another study on the impact of financing small scale enterprise on economic growth in Nigeria, Onakoya, Fasanya & Abdulrahman (2013) used quarterly time series data from 1992 to 2003 to estimate the relationship between financing and growth as well as interest rates and growth. The findings showed that loans extended to SMEs exhibited a positive Effect on economic performance of Nigeria while interest rates displayed a negative impact on growth. From the preceding statement, it can be concluded that the levels of loans extended to the Nigerian small scale enterprise and the prevailing interest rates were growth-enhancing Implying that other challenges other than access to finance were the justified courses of action to be pursued in promoting small scale businesses in Nigeria. Such kinds of studies are crucial as they form a basis for the development of well-focused policy interventions in addressing SME challenges in the midst of an endless list of bottlenecks.

2.2. Theoretical Framework

The work will be anchored on two theories which are, Environmental theory of Florence Nightingale proposed by Johnson and Webber (2012) and the Technological theory propounded by Marshall McLuhan in 1999.

2.2.1 Environmentalist theory of Florence Nightingale

Environmentalist theory of Florence Nightingale proposed by Johnson and Webber (2012): This theory posits that environmental external conditions influences and affect the life and development of an organization and organism as well are able to prevent, suppress or contribute to growth or death of the enterprise or organism.

This theory assumes that providing a suitable environment is vital for the recovery of and growth of organization, hence it is essential to provide and maintain an environment that is favorable to facilitate the growth and sustenance of any enterprise. The use of this theory in this study is significant since the performance and growth of any organization is highly dependent on the provision on the conducive

environmental condition that will enable an enterprise to grow. And for the fact that the study also focuses on the Effect of green accounting as it affects the performance and growth of enterprises.

2.2.2 Technological theory

This theory was propounded by Marshall McLuhan in 1999. The theory states that technological advancement is influenced by the behavior of humans within a given society with their various cultures. This theory assumes that human behavior changes from day to day as a result of environmental factors, hence leading to advancement in technology that suits the current environmental changes. This theory also suits this study since environment changes will lead to a corresponding influence on the performance and growth of an organization as well as environmental design that could make a firm suit to his current environment.

2.3 Empirical Review

R de Villiers & van Staden (2006) utilize annual report content analysis to investigate the environmental disclosure practices of companies operating in South Africa. They conduct a content analysis of more than 140 corporate annual reports over a nine-year period in order to identify the trends in environmental disclosure by South Africa companies over time. Their results indicated a reduction in environmental reporting after an initial period of increase, for both mining companies was bigger than for the top 100 industrial companies. The decrease for mining companies was bigger than for the top 100 companies, both overall and when the results were divided between specific and general information classes. The disclosure of both general and specific information increased from 1994 to 1999; disclosure of specific information then declined by five times more than the decline in disclosure of general information.

Jones (2010) developed a multi-layered theoretical model to investigate environmental accounting and reporting severe environmental dangers; corporate responsibility; new relationship between industry and environment; measure industry's impact, and disclose and report impact stakeholders. The author developed several implications from the acceptance of this theoretical model for organizations and accountants. They found two significant results. First, at the general level, given the security of the environmental problems, it would seem prudent for managers and accountants to take

immediate action to address these threats. Second, the traditional accounting paradigm with its narrow focus on accounting numbers does not capture the environmental consequences of organizational activity. Third, as part of innovation and experimentation there is a continued need to explore potential alternative monetary and non-monetary valuation systems. Finally, the theoretical framework implies that as part of their discharge of their stewardship function organizations should disclose their environmental performance to stakeholders.

Khalid et al(2012) investigated the level of Environmental Management Accounting (EMA) implementation in companies within environmentally sensitive industries in Malaysia, as well as gaining insights into pressures for implementation. The authors found that the elements of environmental-related management accounting within some of the organizations in which interviews were conducted. Implementation was driven by a motivation to reduce costs rather than environmental conservation. Apart from those companies' reactions to environmentally sensitive workplaces, procedures and processes in the companies with which they are in business.

Andrew & Cortese (2011) explored the dominant environmental discourses that can influence and shape carbon disclosure regulation. They found that carbon-related disclosures have in the last five years, and many of these disclosures remain voluntary. The paper considered both the construction of self-regulated carbon disclosure making. The authors focused on the carbon disclosure project (CDP) and the use of the greenhouse Gas (GHG) protocol as a reporting model within it.

Annex & Engelhard (2011) used a predictive Bayesian model confirmed for the assessment of a highly uncertain environment and contingent costs. In environmental accounting methods often ignore or inadequately represent large but highly uncertain environment costs and costs conditioned by specific prior events. The predictive Bayesian approach presented generates probability distributions for the quantity of interest rather than parameters thereof. A spreadsheet implementation of a previously proposed predictive Bayesian model, extended to represent contingent cost, was described and used to evaluate whether a firm should undertake an accelerated phase-out of PCB containing transformers.

Daniel Mogaka Makori Ambrose Jagongo 2013, established the significant relationship between Green accounting and profitability of selected firms listed in India. The data

for the study were collected from annual reports and accounts of 14 randomly selected quoted companies in Bombay Stock Exchange in India. The data were analyzed using multiple regression models. The key findings of the study shows that there is a significant negative relationship between Green Accounting and Return on Capital Employed (ROCE) and Earnings per Share (EPS) and a significant positive relationship between Environmental Accounting and Net Profit Margin and Dividend per Share. Based on this it was recommended that the government should give tax credit to organizations that comply with its environmental laws and that environmental reporting should be made compulsory in India so as to improve the performance of organizations and the nation as a whole.

Dr. Rabindra Kumar Swain, Roji Kanungo, Sakti Ranjan Dash (2017) attempts to study the conceptual aspects of Green Accounting and its regulatory framework. It also examines the consistency of Indian corporate in disclosing environmental factors as per GRI guidelines, as GRI is the popularly adopted guideline among the corporate world. It also makes an attempt to identify the extent of environmental disclosure under GRI guidelines by sample companies. For the purpose of the study top 50 Indian companies of on the basis of market capitalization which are listed in the Bombay stock exchange, have been taken as sample and their annual report for the year 2014-15 have been analyzed to reveal the consistency of disclosure of environmental aspects and to find out the extent to which they are disclosing these aspects. Statistical tools like coefficient of variation, proportion test and chi square test have been used for analyzing the objectives.

Charles Emenike Ezeagba, John-Akamelu Chitom Rachael, Umeoduagu Chiamaka 2017, examined the relationship between Green accounting disclosures and return on equity of food and beverage companies in Nigeria. Data for the study were collected through secondary sources and analyzed using Pearson's correlation statistical technique and multiple regression, with the aid of SPSS version 20.00. The study revealed that there is a significant relationship between environmental accounting disclosures and ROE. It also revealed (-) relationship between environmental accounting disclosures ROCE and NPM

Dr. C. Sengottuvel (2018) Environment accounting involves the identification, measurement and allocation of environmental costs, and the integration of these cost

2.4 Gap in Empirical literature

Most of those studies reviewed on Green Accounting and Firms Profitability/ growth were carried out in developed economies where strong government regulatory intervention, high institutional competition, and disclosure level differs from that of most emerging economies like Nigeria. Empirical studies on environmental green accounting practices and firm growth are scarce as most of the previous study reviewed focused on the Effect of green accounting and organizational performance.

Some results indicated a reduction in environmental reporting after an initial period of increase, especially in mining companies. The disclosure of both general and specific information increased from 1994 to 1999; disclosure of specific information then declined by five times more than the decline in disclosure of general information. In developed nations Implementation was driven by a motivation to reduce costs rather than environmental conservation which differs here in developing countries.

3.0 Methodology

This research is designed to examine the effect of green accounting on Firms Profitability among Manufacturing Industries in Nigeria. The study adopted the *ex-post-facto* research design. Data was collated from companies annual reports listed on the Nigeria Exchange Group annually. The data that already existed and the researcher made no attempt to change their nature and values. The population of the study consists of manufacturing firms in related lines of production.

Data used in the study covered a period of 10yrs (2012-2021) and were sourced from the enterprise business records. The data collected were coded in environmental domestic product (EDP), Net accumulation of produced enterprise asset (NAPA) net accumulation of non-produced natural asset (NANNA). These green accounting variables were used to check the effect it has on growth of the enterprises. Descriptive and Regression were done with the use of E-view 10 software and interpreted accordingly. data collected were all subjected to correlation and regression analysis to ascertain the effect of Green Accounting on the growth of an enterprise in manufacturing firms in Nigeria.

The model that can be used is adopted from similar work of Josef, et al (2011) which was done on Effect of life cycle on corporate environmental disclosures and modified to suit the variables used in this study. The model is stated as follows:

The model specification is as follows.

PFTit= f(EDP, NAPA,NANNA) 1

This can be econometrically expressed as:

PFTit= α0 + β1EDPit + β2NAPAit + β3NANNAit + ϵit 2

Where

EDP = Environmental Domestic Product,

NAPA = Net Accumulation of Enterprise Produced Economic Asset

NANNA = Net Accumulation of Non-Produced Natural Asset

d_o = Constant; d_1... d_5 = are the coefficient of the regression equation. μ = Error term, *i*= is the cross section of firms used, this year (time series)

Decision Rule for hypothesis testing:

Accept Ho and reject H1– when the probability value is above 5%

Accept H1 and reject Ho– when the probability value is less than 5%

4.0 Data Presentation And Analysis

(1) VITA FOAM REGRESSION ANALYSIS

Dependent Variable: PFT
Method: Least Squares
Date: 11/21/23 Time: 11:41
Sample: 2012 2021
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-93780.55	1018733.	-0.092056	0.9297
EDP	117003.0	172848.4	0.676911	0.5237
NAPA	-213111.4	266575.7	-0.799441	0.4545
NANNA	371525.9	297867.3	1.247287	0.2588

R-squared	0.475120	Mean dependent var	893499.0
Adjusted R-squared	0.212680	S.D. dependent var	741416.0
S.E. of regression	657866.2	Akaike info criterion	29.92057
Sum squared resid	2.60E+12	Schwarz criterion	30.04160
Log likelihood	-145.6028	Hannan-Quinn criter.	29.78779
F-statistic	1.810395	Durbin-Watson stat	1.657978
Prob(F-statistic)	0.245490		

Source: E-view 10

(2) POLY FOAM REGRESSION ANALYSIS
Dependent Variable: PFT
Method: Least Squares
Date: 11/21/23 Time: 12:09
Sample: 2012 2021
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18909.46	134604.8	0.140481	0.8929
EDP	-70715.15	43718.37	-1.617516	0.1569
NAPA	48529.15	42683.45	1.136955	0.2989
NANNA	120040.1	60920.12	1.970450	0.0963

R-squared	0.716863	Mean dependent var	487965.9

Adjusted R-squared	0.575294	S.D. dependent var	89710.93
S.E. of regression	58464.10	Akaike info criterion	25.07939
Sum squared resid	2.05E+10	Schwarz criterion	25.2004 2
Log likelihood	-121.3969	Hannan-Quinn criter.	24.94661
F-statistic	5.063718	Durbin-Watson stat	1.972890
Prob(F-statistic)	0.044040		

Source: E-view 10

4.2 Discussion

- Hypothesis Testing, Interpretation of Result and Regression Analysis using E-View 10

Hypothesis I

There is no significant Effect of the environment 's domestic product on the growth of an enterprise.

- Investigating the Effect of environmental domestic products on the Profitability of an enterprise in Vita Foam.

Dependent Variable: PFT
Method: Least Squares
Date: 11/21/23 Time: 12:23
Sample: 2012 2021
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-460155.7	699288.4	-0.658034	0.5290

EDP	238739.8	118058.0	2.022224	0.0778

R-squared	0.338263	Mean dependent var	893499.0
Adjusted R-squared	0.255546	S.D. dependent var	741416.0
S.E. of regression	639706.8	Akaike info criterion	29.75226
Sum squared resid	3.27E+12	Schwarz criterion	29.81278
Log likelihood	-146.7613	Hannan-Quinn criter.	29.68588
F-statistic	4.089390	Durbin-Watson stat	1.047458
Prob(F-statistic)	0.077790		

Source: E-view 10

4.2 Data Analysis

4.2.1 Interpretation on Hypothesis I

The Data range is for Vita Foam from 2012-2021

PFT=α+ β1EDP+e

PFT=-460155.7+238739.8EDP+e

If EDP increases by 1 unit, then PFT increases by 23.9 units keeping all other factors constant.

From the above regression analysis in Figure 4.2: the R^2 is 0.338263 and shows that 33.82% changes in the dependent variable is explained by the independent variable.

The Probability of F-Statistics which is 0.077790 > 0.05 shows that the model is insignificant and not fit. Thus, implying that there is no Effect of the independent variable (EDP) on the Dependent Variable (PFT).

4.2.2 Analysis and Interpretation

In figure 4.1 above, our prob value < 0.05, meaning our variable for hypothesis I, environment domestic product do significantly have an Effect on Firms Profitability. The variable is significant on the basis of probability value or on the chances of error.

Decision Rule 2 on T-Statistics:

If T-Calculated > T-Tabulated, it means reject H_o^I and accept H_A^I; implying that the variable is insignificant. Also, given the decision criteria to accept H_o^I if the t-statistics < 2 and the probability of the Statistics is > 0.05. Table 4.3.2 shows the sign of the coefficient of environment domestic product as a positive 20.04612, T-Statistics of 2.022224 which is >2 with a probability of the t-statistics of 0.0000 < 0.05. We therefore accept the null hypothesis (H_o^I) and reject the Alternative hypothesis (H_A^I) and conclude that environment domestic products do not have significant Effect on Firms Profitability in Vita Foam Manufacturing company.

Hypothesis II

Net accumulation of produced enterprise economic asset does not have any significant Effect on the Profitability of an enterprise

- Investigating the Effect of net accumulation of produced economic assets on the Profitability of an enterprise

Dependent Variable: PFT
Method: Least Squares
Date: 11/21/23 Time: 12:29
Sample: 2012 2021
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-183915.2	1048315.	-0.175439	0.8651
NAPA	187376.4	177754.6	1.054129	0.3226

R-squared	0.121959	Mean dependent var	893499.0
Adjusted R-squared	0.012204	S.D. dependent var	741416.0

S.E. of regression	736878.1	Akaike info criterion	30.03509
Sum squared resid	4.34E+12	Schwarz criterion	30.09561
Log likelihood	-148.1754	Hannan-Quinn criter.	29.96870
F-statistic	1.111189	Durbin-Watson stat	0.844769
Prob(F-statistic)	0.322617		

4.3 Data Analysis

4.3.1 Interpretation on Hypothesis II

The Data range is for Vita Foam from 2012-2021

PFT=α+ β1NAPA+e

PFT=-183915.2+187376.4NAPA+e

If NAPA increases by 1 unit, then PFT increases by 18.73 units keeping all other factors constant.

From the above regression analysis in Figure 4.3: the R^2 is 0.1219 and shows that 12.1% changes in the dependent variable is explained by the independent variable.

The Probability of F-Statistics which is 0.322617> 0.05 shows that the model is insignificant. Thus, implying that there is no effect of the independent variable Net Accumulation of Produced Economic Asset (NAPA) on the Dependent Variable Profitability.

4.2 *Analysis and Interpretation*

In figure 4.1 above, our prob value > 0.05, meaning our variable for hypothesis II, net accumulation of the enterprise product of economic assets does not significantly have any Effect on Firms Profitability. The variable is insignificant on the basis of probability value or on the chances of error.

Decision Rule 2 on T-Statistics:

If T-Calculated > T-Tabulated, it means reject H_o^2 and accept H_A^2; implying that the variable is significant.

Also, given the decision criteria to accept H_o^2 if the t-statistics < 2 and the probability of the Statistics is > 0.05. Table 4.3.2 shows the sign of the coefficient of Net accumulation of produced enterprise economic asset 187376.4, T-Statistics of 1.054129 which is <2 with a probability of the t-statistics of 0.3226 > 0.05. We therefore accept the null hypothesis (H_o^2) and reject the Alternative hypothesis (H_A^2) and conclude that net accumulation of the enterprise product of economic assets does not have any significant Effect on Firms Profitability in Vita Foam Manufacturing company.

Hypothesis III

There is no influence of net accumulation of non-produced natural assets on the Profitability of an enterprise.

- Investigating the Influence of net accumulation of non-produced natural asset on Profitability of an enterprise

Dependent Variable: PFT
Method: Least Squares
Date: 11/21/23 Time: 12:32
Sample: 2012 2021
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	409022.4	624063.2	0.655418	0.5306
NANNA	312355.2	142056.5	2.198810	0.0591

R-squared	0.376693	Mean dependent var	893499.0
Adjusted R-squared	0.298779	S.D. dependent var	741416.0
S.E. of regression	620853.7	Akaike info criterion	29.69243

Sum squared resid	3.08E+12	Schwarz criterion	29.75295
Log likelihood	-146.4622	Hannan-Quinn criter.	29.62605
F-statistic	4.834763	Durbin-Watson stat	1.394725
Prob(F-statistic)	0.012104		

4.4 Data Analysis

4.4.1 Interpretation on Hypothesis III

The Data range is for Vita Foam from 2012-2021

PFT=α+ β1NANNA+e

PFT=-409022.4+312355.2NANNA+e

If NANNA increases by 1 unit, then PFT increases by 31.23 units keeping all other factors constant.

From the above regression analysis in Figure 4.3: the R^2 is 0.376693 and shows that 37.6% changes in the dependent variable is explained by the independent variable. The Probability of F-Statistics which is 0.012104 < 0.05 shows that the model is significant and fit. Thus, implying that there is an Effect of the independent variable Net Accumulation of Non-Produced Natural Assets (NANNA) on the Dependent Variable Firms Profitability. Thus the decision rule is to Accept Ha and reject Ho.

4.5 Findings

The Findings from Hypothesis one and two showed that there is no Effect of the independent variable Environmental Domestic Product on the Dependent Variable which happens to be its profitability which implies that the Firm must learn to follow the recommendations as to this study so as to balance the environmental factor as well as that of the production factors. Also seeing the fact that there is a significant effect on the third hypothesis shouldn't give them the ability to relax as they ought to put in more effort. It's necessary that enterprises put into consideration the key variables

that could impede their Profitability and match this with effective green accounting design suitable for the organization and the environment.

5.0 Conclusion

Green accounting is an emerging aspect of accounting science that will influence, in the near future. The adoption of basic elements or factors of green accounting will portray the role of its environment in the economy as well as render easier the analysis of macroeconomic questions with the help of green accounting measures and thus, will lead the economy to a viable path. At each stage of the environmental domestic products, economic assets and natural asset , there are usually confronted with several challenges on what to produce, how to produce, when to produce and at what cost should an item be produced, also considering issues that has to do with the cost and challenges of pollution melted on the environment, be it water, air and land and finally the litigation on the disposal of waste materials. Thus some strategies and behavioral patterns to overcome the above issues and challenges are well looked into by all concerned stakeholders especially the management of the companies involved. At different stages of the study objective, there are different focuses, targets and stakeholders' expectations in relation to cost and benefits. To meet expectations and achieve the goals peculiar to all stages, the firm and management must carry the stakeholders along and curry their favor especially in matters that arise in cost incurred both in products, prices, court cases as a reason for defiling the environment due to the flare of unwanted substances and others. The results show that companies that adopt green accounting practices, particularly through economic and environmental practices, are more likely to achieve higher levels of energy efficiency and environmental performance especially in terms of its Profitability in its enterprise. It concludes that there is a significant and insignificant effect of those variables on the Profitability of enterprise if no other factors such as internal or external comes to play but if external factors or internal factors comes into play it will have some level of effect on the Profitability of the firm. Specifically, the study concluded that the Net Accumulation of Non-Produce Natural Asset has a significant Effect on the Profitability of Vita Foam Manufacturing Company while other variables had an insignificant or little or no Effect on the Firm's Profitability.

5.1 Recommendations

It is recommended that Management of the company should make sure they have appropriate and well-designed green accounting structures to be able to stand the test of time. They should also follow the new trends in terms of technological advancement and globalization. Management and Staff should be well trained as to seeing the importance of developing a green accounting system in the organization so as to achieve the firm's Profitability.

Other further recommendations in relation to the above objectives are as follows:

1. Management of the companies should at the environmental Production Stage formulate a well-designed policy that would enhance the quality of environmental domestic products as well as carefully look into its cost analysis and if possible give guidelines on how a better cost analysis could be achieved thereby achieving the organizational goals.
2. Also in terms of net accumulation of economic assets, quality effort should be taken to increase their assets thereby making way for depreciation of outdated assets that cannot meet the firm's obligations. Careful analysis of debt finance mix as well as retained earnings will help here in order to achieve the firm's objective. They should also make significant efforts and enhance their chances of gaining more goodwill from the stakeholders and achieve their wealth maximization objective. They should also pay particular attention to the net accumulation of economic assets to enhance the firm's operating environment and the Profitability of the company.
3. They should have the ability to manage the costs involved in terms of net accumulation of non-produced natural assets there by finding new ways to achieve better ones. They shouldn't rest after achieving both the first and second stage but should do more. Cost analysis here and laying continued foundation for green accounting should be likened to the going concern concept. They should further create a cordial relationship between the companies and the host communities which is the environment at which they operate. Also, it should be designed in their best ways on how to reduce waste or emission during their operations. Finally, ideas on how to legally acquire non-produce natural assets will be of utmost importance.

4. Consider the option of revising estimated returns and take advantage of the relaxed tax compliance regime provided by the authorities, which could reduce the pressure on cash flows

References

Appah E. (2011), A Study of Social Accounting Disclosures in the Annual Reports of Nigerian Companies, Asian Journal of Business Management, 145(3).

Egginton, D.A (1998): Accounting for the banker, New York, Longman Press Ltd.

Global Reporting Initiative (GRI) (2013). "The External Assurance of Sustainability Reporting". Global Reporting Initiative Research & Development Series.

Henderson, L. (2014): Business Management, London, English Language Book Society.

Ibekwe, Oliver U. (1984): Modern Business Manager, Owerri, Rhycee Publishers Ltd.

Ilaboya, O. J. (2008). *Advanced financial accounting*. Benin, NG: Mindex publisher.

Institute of Chartered Accountant of Nigeria [ICAN]. (2014). *Financial Reporting.* Berkshire, UK: Emile Woolf International.

International Financial Reporting Standard. (IFRS) 6. Exploration for and Evaluation of Mineral Resources. Retrieved from www.en-euifrs6.com

KPMG (2012): Impact of IFRS: Mining, Energy and Natural Resources. KPMG international.

KPMG. (2014). IFRS guide to annual financial statements- Disclosure checklist. Retrieved from www.kpmg.com/ifrs

KPMG. (2015). IFRS guide to annual financial statements-illustrative disclosures. Retrieved from www.kpmg.com/ifrs

Mensah, Anthony (1997): Introduction to Cost Accounting and Cost Method, Benin, Africana Feb. Publishers.

Nze, O.O. & Ojeogwu, A. (2016): Intermediate Accounting, 4th edition, Delhi, Hill Book Company.

Olayinka, M. U. & Temitope, O. F. (2011). Corporate social responsibility and financial.

Olayinka, A., & Oluwamayowa I. (2014). Corporate environmental disclosures and market value of quoted companies in Nigeria. The Business and Management Review, 5(3), 171-

PWC (2011): IFRS 6 in Practice: An overview of IFRS 6, Exploration for and Evaluation of Mineral Resources. BDO International.

Setyorini, L.A. Ishak, A. (2012): Costing. An Introduction for Students, London, ELBS.