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SOCIAL COST ACCOUNTING AND PROFITABILITY OF GLAXO SMITH KLINE NIGERIA PLC. LISTED ON THE NSE

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ABSTRACT: *This study examined the relationship between social cost accounting and profitability with a focus on GlaxoSmithKline Consumer Nigeria PLC in a case study. The study adopted employee benefits, incentives welfare and healthcare cost (EBI) and contribution to government revenue (CGR) as proxy for social cost accounting (the independent variables), while profit after tax (PAT) representing profitability was adopted as the dependent variable. Secondary data for the selected study variables were obtained through content analysis of the annual reports of GlaxoSmithKline for the period 2011 to 2018. The study employed descriptive statistics and multiple regression analysis based on the E-view 10 software as techniques for data analysis. The results revealed that all the independent variables had positive relationship with profit after tax, but only contribution to government revenue was significant at 5% level. The regression results also showed that the coefficient of determination (R-squared) value of approximately 0.94 indicating that 94% of changes in the dependent variable are accounted for by the combined effect of changes in the independent variables. The combined effect of variations of the explanatory variables significantly explained changes in the dependent variable with probability of F-statistic value of 0.000007 (at 5% level of significance). The study concluded that social cost accounting is significantly related to profitability. Based on the findings of the study it was recommended that the management of GlaxoSmithKline should continue to implement the social cost accounting policies already put in place as they provide a good social image for the company, and that would guarantee the long run success and survival of the company.*

KEYWORDS: accounting, contribution, employee benefits, profitability, social cost

INTRODUCTION

Contemporary issues in accounting has, in recent times emphasized the need for financial accounting reports to conform to social and environmental responsibility practices reporting requirements. This is because to be seen as a responsible corporate citizens and successful going concerns, business must present to users information relating to their economic, social and environmental performance (the tripod goals of modern business), in accordance with the accounting concept of triple bottom line (abbreviated as TBL) which is also known as the 3Ps of profit, people and planet. In the 3Ps, profit stands for economic performance, people for stand social performance, and planet represents environmental performance. Thus a company with a good corporate image and reputation want to provide information about how its activities affect not only profit but also the people and the planet. Put in another way, socially responsible firms want to pay attention to all three of these factors and find an economic balance while applying well known business principles and strategies (Hilmi, 2016).

This study on social cost accounting and profitability aimed to investigate the link between social performance (used to mean firms investing on social costs or socially responsible practices) and economic performance (profitability or financial performance) with data drawn from a leading drug manufacturer in Nigeria. GlaxoSmithKline Consumer Nigeria PLC is an affiliate of a global healthcare company, leading in manufacturing, marketing and distribution of pharmaceutical and consumer healthcare products. Incorporated in Nigeria in 1971 and started business in 1972, the company has head offices at 1, Industrial Avenue at Ilupeju in Ikeja, Lagos. The company which was quoted on the Nigerian Stock Exchange in 1977 currently makes pharmaceutical and healthcare products such as Panadol, Andrew Liver Salt, Horlicks, Macleans, Sensodyne, Voltaren and Otrivin among others. GlaxoSmithKline is responsible to society and has interest in the safety and well-being of its customers and employees in terms of providing exchange programmes and secondments overseas as part of its staff training and development. As a demonstration of its social responsibility the company invested 40 million Naira in sponsoring the SOS Villages of Nigeria for the 14th year in 2017 to provide education.

Business organizations are located, and carry out their operations within a society. Society therefore provides employees, customers, suppliers and the environment conducive for the organization to carry on its business going by the stakeholder theory. On the other hand the business firm is expected to meet the needs of the society through paying good wages to its employees, contribute to maintain public services and safety, as well as contribute to health and education. Social cost accounting therefore refers to the firm’s commitment to meet the needs of society as a good business neighbor to ensure the long run success of the firm as a going concern. The objective of social cost accounting among others is to provide information on the contribution of firms to the society as well a way of presentation of the social costs and benefits of an organization. Social cost accounting extends financial reporting to include social welfare activities (including employee benefits and incentive schemes) where companies are not only responsible to their shareholders but also to the entire stakeholders (Daferighe, Akpanuko & Offiong, 2019).

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The role of business in society is dynamic and ever changing. Business entities operate within a society, the business is expected to affect the society just as the society would in turn to affect the business. The business and the environment or society's relationship should be positive and mutually beneficial to both parties. Thus the legitimacy theory is satisfied if the business entity-society interaction is mutually beneficial to both parties. The society on the other hand affects the performance of business by making demand for compensation, provision of social amenities, and employment of indigenes. Social cost accounting is an approach to reporting a firm's activities which stresses the need for the identification of society relevant behavior, the firmness of those to whom the company is accountable for its financial performance. They further emphasized that the social accounting entails corporate accountability (Growther 2000). Social cost accounting is a branch of accounting which attempt to measure the social benefits that an organization provides and the social cost that an organization incurs, with a view of using such to make available information that would enhance appropriate allocation of scarce resources for the benefit of the organization and the society (Kalunda 2007). The sole aim of establishing an organization is to improve the quality of life in the society and what the organization has impacted on the society from time to time. Accounting for social responsibility is an extension of the accountability of the organization outside the bound of traditional financial accounting which is to provide financial report not only to shareholders, but also to the entire stakeholders (which includes shareholders, prospective investors, employees, management, customers, suppliers, government, creditors, brokers, analysts, business advisers, and the community in general).

Profitability defines the long term success and survival of a company as a going concern, and it is the bottom-line measure of firm performance. It can be identified from the point of view of gross profit or net profit. Gross profit refers to the amount of profit generated from the ordinary trading activities of a company, and it is the value of sales over and above the costs incurred in bringing the goods into saleable state. Net profit is the value of gross profit after deducting all administrative and selling expenses as well as paying associated interest and taxes, and this is the portion of the earnings of the firm that is attributable to shareholders.

Performance of a company in general is the ability of the company to efficiently utilize its resources to generate profit within a reporting period. Financial performance plays an important role because it is used as an indicator of good or bad financial health of a company within a certain time period. Good financial performance will attract the attention of investors to invest because investors would not want to bear a high element of risk in investing. Profit as a measure of performance is usually stated in the form of ratios in comparison with other items in the statement of financial position, such as return on assets (ROA), return of equity (ROE), return on capital employed (ROCE) or return on investment (ROI). In all, ROA which expresses the net profit margin as a percentage of total assets is the best in measuring the company's ability to efficiently and effectively utilize its resources to generate earnings to satisfy the interest of all stakeholders. Throughout this study net profit margin otherwise simply referred to as profit after tax was used to represent profitability.

In the world of finance, the financial performance reporting of a company is designed to give account of stewardship by the management team to the shareholders. Financial performance is commonly used as an indicator of a firm's financial health over a given period of time, and this is communicated to users or stakeholder via the annual financial statements. In view of the stakeholder school of thought, the inter relationship between the business and its society has become increasingly important. The society and organization are quite aware and conscious of this interdependence. As a result, organizations are no longer viewed to be totally private endeavors that are free to pursue their ends as long as they break no laws. Instead, their actions are seen as having public consequences that go beyond serving customer and paying return to owners. The outcome of this notion is a rising public clamor for social responsibility accounting or social responsiveness on the part of the businesses, thereby making social accounting an important contemporary issue in the field of accounting.

Many empirical studies have been conducted in developed countries to examine the link between social and environmental accounting performance and financial performance of companies; most times companies in advanced jurisdictions are legally required to do so. But only few research studies have been done to investigate the influence of social accounting performance on financial performance in less developed economies, including Nigeria. In Nigeria for example, it is still voluntary for listed companies to report on the impact of their business activities or operations on the society and the environment. There is also no known legal requirement that makes it mandatory for listed companies in Nigeria to make social or environmental responsible practices disclosures in their annual reports. As a result, environmental and social responsibility practices reporting is still at the infancy level or developmental stages, so most listed companies report very little information about the impact of their activities on the environment and society (Etale & Otuya, 2018).

The review of empirical literature revealed that the results of previous studies carried out on this subject have been inconclusive, inconsistent and contradictory. For example, the studies of Daferighe, Akpanuko and Offiong (2018), and Abdullah (2018) revealed that social and environmental accounting had no relationship with financial performance. But the studies conducted by Ahmad, Waseer, Hussain and Ammara (2018), Hilmi (2016), and Magara, Aming'a and Momanyi (2015) reported a positive association between environmental and social accounting performance and firm profitability. Yet other studies such as the ones done by Babalola (2012) and Bessong, and Tapang (2012) revealed that social and environmental responsibility accounting had negative influence on profitability, while Ezeagba, John-Ogbari and Umeoduagu (2017) and Makori and Jagongo (2013) in their different studies found mixed effects. These contradictions in the findings of past empirical research indicate the existence of a research gas which points to the need for further studies. This is the motivation for this study as it was aimed to contribute to the debate and provide further literature on the topic by using data obtained from GlaxoSmithKline Consumer Nigeria PLC, a major drug manufacturing company listed on the Nigerian Stock Exchange to test the relationship between social cost accounting and profitability. Social cost accounting was proxy by the company's investment on employee benefits, incentives, welfare and healthcare cost (EBI) and contribution to government revenue (CGR), while the proxy for profitability and the dependent variable is profit after tax (PAT).

The objective of this study was to examine the relationship between social cost accounting and firm profitability using GlaxoSmithKline Nigeria PLC as a case study; with profit after tax (PAT) representing profitability as the dependent variable, and the company's employee benefits, incentives, (EBI) and contribution to government revenue (CGR) This objective formed the basis of the research questions addressed and the hypotheses tested. This study is significant in providing beneficial and useful insights that can help the management of GlaxoSmithKline in forming expectations and interpreting the link between the company's social costs and its financial performance. Also other companies who are engaged in manufacturing like GlaxoSmithKline would find the guidance provided in this study useful in formulating sustainable social policies. The information provided by this study would be useful as well to other stakeholders such as employees, government, society or host communities in addressing their expectations from manufacturing concerns located within the society.

The rest of the study is structured into five sections. Section one covers the general introduction of the study, while section two covered the review related literature. The methodology adopted in carrying out the study is stated in section three. Data collected for the purpose of the study as well as the results of analysis and the discussion of the study findings are presented in section four. Lastly, Section five contains the summary of the study findings, conclusion and recommendations.

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REVIEW OF RELATED LITERATURE

Conceptual Issues

Social Cost Accounting

The collection, recording, classification and interpretation of data relating social costs incurred by the reporting entity, and the communication of such information to users or stakeholders is referred to as social cost accounting. Sometimes such costs may be provided as additional information or by way of notes to the accounts. The disclosure of social cost information in the accounts of a company provides a good image for the company which can be considered as a responsible corporate citizen. Items to be accounted for as social costs may include but not limited to costs incurred by the company in providing services for the benefit of the society or community. It covers the company's investment in providing social services such as healthcare, education, employment, any form of empowerment or capacity building, training for staff, meal subsidy and other incentives for staff, safety, provision of community social amenities, scholarships for members of the community, and contribution to government revenue by way of taxes. In some cases the firm retains an officer in its payroll as a community relations officer (CLO).

Areas of Social Cost Accounting

a) Regarding community

This includes the group of activities aiming at achieving benefits for the society, such as providing employment for members of the community or society, award of scholarship to university students, and contribution to healthcare delivery by providing public health centers/facilities, and welfare like provision of electricity and portable drinking water for the society (Bessong & Tapang, 2012).

b) Regarding workers

This includes the impact of the firm's activities on its employees. The firm here contributes to the improvement of the employees working conditions in general, in term of free healthcare, safety, meal subsidy and other incentive schemes which represent aspects of social cost accounting (Bessong & Tapang, 2012).

c) Regarding consumers protection

This form of activity is to safeguard the interest of the firm's consumers and suppliers, product quality improvement plans, investment in research and development for the introduction of new technology and innovation, and provision of adequate information about the firm's products, in terms of methods and limits of usage on drugs (Bessong & Tapang, 2012).

Objectives of Social Cost Accounting

Social cost accounting seeks to determine and measure the net social contributions of the firm on a periodic basis, including the social cost and external social benefit that influence segments of the community (Bessong & Tapang, 2012). The objectives of social cost accounting can be summed up as follows: to disclose the activities carried out by the firm that have direct impact on the society, showing the need for appropriate data on the social performance of the firm and the extent to which it contributes to social objectives; it also seek the social performance by identifying whether the firm's ambition to ensure that individuals connected with the firm to have a reasonable percentage of profit; and to convey such data to internal and external beneficiaries in a way that positively influences decision made regarding activities at the private or public level. The objectives of social cost accounting underlines the need for appropriate data on the social performance of the firm and the extent to which it contributes to achieving social goals of the society.

Benefit of Implementing Social Cost Accounting

Social cost accounting for the purpose of management control is designed to support and facilitate the achievement of a firm's own objective. (Gray 2000). Firms are likely to benefit from implementing social cost accounting in the following ways: Increased information for decision making; maintaining legitimacy; identification of market development opportunity; and enhanced image management and public relations.

Disclosure of Social Responsibility Accounting

The social responsibility reporting is supposed to be a rational assessment and meaningful reporting on the measurement of the activities of a business enterprise which have social impact (Bessong & Tapang, 2012). Disclosure of social responsibility which is often also referred to as social disclosure, corporate social reporting, social accounting or corporate social responsibility is a process of communicating the social impacts of the activities of the firm to specific groups concerned and on society in general. Titisari (2010) defines social disclosure as a reporting or delivering information to stakeholders about all the activities of companies related to the society

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or community. It expands the responsibilities of firms beyond its traditional role to provide financial report to shareholders especially stakeholders.

Understanding social performance

The challenges of building sustainability in managing the business establishment requires the need for the firm to put in place social responsibility practices. To effectively manage social responsibility practices, there are two strategies that can improve firm social performance. First, social performance improvement strategy aims to satisfy the needs of all stakeholders. This prompted the company, as a state, to perform the management of positive and negative impact on the operations of the business in accordance with government regulations. Secondly social performance improvement strategy is realized through the principle of involvement of all stakeholders and community development (Hilmi, 2016). In this case social responsibility aim to meet the needs of the stakeholders who depends on the capability of the company, including respecting the right of the community, the characteristics of the community to interact, investing social values to the community.

Determinants of Profitability

The analysis of the determinants of corporate financial performance is essential for all the stakeholders. The main goal of corporate governance focuses on maximizing shareholder value. This principle provides a conceptual framework for evaluating business performance. The value of shareholders, defined as market value of a company is dependent on several factors: the current profitability of the company, its risks, and its economic growth essential for future company earnings. All of these are major factors influencing the market value of a company (Ross, Westerfield & Jaffe, 1996). A company’s financial performance is measured by its level of profitability. Profitability which determines success and the long run survival of a company can be decomposed into its main components: net turnover and net profit margin. Their argument is that both can influence the profitability of a company at the same time. A high turnover means better use of assets owned by the company and therefore better efficiency, a higher profit margin means that the entity has substantial market power. Risk and growth are two other important factors influencing a firm’s financial performance. Since market value is conditioned by the company’s results, the level of risk exposure can cause changes in its market value. Economic growth is another component that helps to achieve a better position on the financial markets, because market value also takes into consideration expected future profits. The size of the company can have a positive effect on financial performance because larger firms can use this advantage to get some financial benefits in business relations. Total assets are considered to have a positive influence on the company's financial performance, greater assets means less risk.

Theoretical framework

Several theories have been developed to explain why a company may decide to act responsibly. This study considered the stakeholder and legitimacy theories as the appropriate theories that provide the foundation upon which this study is based.

Stakeholder Theory

Stakeholder theory suggest that companies are responsible not only to shareholders, but to a range of stakeholders such as shareholders, management, customers, suppliers, employees, trade union, lenders, members of the society or host communities, the investing public and government, all of which are impacted by a firm's activities (Freeman, Harrison & Wick 2007). This view was upheld by Eyre (1982) stating that there are a number of interested parties to be considered in the formulation of business objectives. These parties include shareholders, managers, employees, customers, suppliers and the host community.

The basic proposition of the stakeholder theory is that the firm's success is dependent upon the successful management of all the relationship that a firm has with its stakeholders (Ezeagba, John-Akamelu & Umeoduagu, 2017). Freeman (1984) defines a stakeholder as any group or person who can affect or be affected by the achievement of the firm's objective. Freeman's stakeholder's theory asserts that, managers must satisfy a variety of persons (employees, customers, community, etc) who can influence the firm's outcomes. According to this view, it is not sufficient for managers to focus exclusively on the needs of shareholders.

Stakeholder theory should be viewed as an attempt to maintain anything other than an organization centered legitimacy because while the group maybe defined with a fair degree of objectivity, which is left to defined the priorities among the stakeholders and the information that should be disclosed to each one. According to Eyre (1982), the view of management objectives put forward by economic theories has been challenged by sociologist and psychologist. These behavioral scientists contend that profit maximization alone cannot be the sole management objectives. Furthermore, they believe that the employee-manager hoped to satisfy his own personal benefit in the organization. This implied that those with the responsibility of formulating business objective should take into consideration the personal interest of the employee-manager. There should be a deliberate management policy to satisfy the benefit of all stakeholders including the employees. If the firm is able to satisfy the interest of all stakeholders,

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the firm would receive ongoing support from concerned to be able to increase growth in market share, sales and profit (Hilmi, 2016). This will undoubtedly motivate the employees to achieve the firm's objective.

Different stakeholders have different right of information. This right can be stipulated by law, but also by non-legal codes, corporate values, mission statements and moral right, the right of information are determined by the society, the organization and its stakeholders. Stakeholders analysis needs to be carried out to ensure relevant parties that have a stake in the firm are identified and their interests addressed accordingly.

Legitimacy Theory

The legitimacy theory states that the firm and the host community have close social relations as both are engaged in a social contract (Hilmi, 2016). Therefore, the firm would earn the status of a legitimate corporate citizen of the community or society if it (the firm) in its business operations meet or satisfy the expectations of the society or community. This means that firms exist to the extent that the particular society considers that they are legitimate, and if this is the case, the society confers upon the firm the state of legitimacy. Going by this principle, members of the society or community are stakeholders of the firm (the implication is that the legitimacy theory and the stakeholder theory work hand-in-hand).

According to the legitimacy theory, a company's performance is legitimate when it is judged to be fair and worthy of support by society (Magara, Aming'a & Momanyi, 2015). That is, when it is socially accepted by the community as a corporate citizen or member of the society. Legitimacy gaps arise when societal expectations of the firm's behavior differ from societal perception of its behavior. A process of legitimating may be engaged in by a company either to gain or to extend legitimacy to maintain its level of current legitimacy, or to repair or to defend its lost legitimacy, where managers perceive that firm's operations are not commensurate with the social contract. The theory is based on the perceptions of any strategy implemented by managers of the firm to have effect on external parties must be accompanied by adequate disclosure.

Business operates in society through a social contract where it agrees to perform various socially desirable actions in return for approval of its objectives and other reward, which ultimately guarantee its survival (Guthrine & Parker 1989). The firm, therefore, need to disclose enough social information to enable users of financial reports to determine whether the firm is a good corporate citizen. Firms may face situations that may lead them to undertake legitimization

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activities including the stakeholders' approach; that the management control information and decides how to deal with the stakeholders. The survival of a firm is established by both market forces and the expectations of the community, and the understanding of the broader concerns of society expressed in community expectations become a necessary precondition for the survival of the firm (Abdullah, 2018). The theory focuses on the assumption that a firm must retain its social role by responding to the needs of society and give society what the society want (Deegan, 2002). The theory of legitimacy is an enterprise management system that is oriented in favor of the society, individuals and government. The company's operations should be in accordance with the expectations of the society.

Empirical review

Daferighe, Akpanuko and Offiong (2019) examined the relationship between social accounting and profitability of companies in Nigeria for the period 2009 to 2015.They adopted health related welfare cost representing social accounting practices as the independent variable, while return on equity, proxy for profitability was used as the dependent variable. Secondary data for the study were obtained from 15 selected oil and gas, manufacturing, and building and construction sector companies listed on the Nigerian Stock Exchange. The results of data analysis based on the use of descriptive statistics and multiple regression analysis revealed that health related welfare cost had no significant relationship with return on equity. The study concluded therefore that investment in social activities would not positively influence profitability. Abdullah (2018) investigated the effect of social and environmental accounting practices on profitability of companies located in Erbil, Kurdistan Region of Iraq using primary data obtained through the use of a questionnaire in the year 2017. The survey involved a sample of 50 manufacturing companies. Profitability measures considered include return on capital, net profit margin, DPS or EPS. The study made use of Pearson's chi-square test for the evaluation of data. It was found that no significant relationship existed between social and environmental accounting practices and profitability of companies in the Kurdistan Region due to little or no awareness on environmental responsibility reporting requirements being an LD economy.

Ahmad, Waseer, Hussain and Ammara (2018) investigated the relationship between environmental accounting and performance of 9 non-financial firms listed in Pakistan Stock Exchange for the period 2006 to 2016. Secondary data for the study was collected from financial reports of sampled companies across different industrial sectors. They employed random effect model regression analysis based on E-views 7 software, unit root test, and descriptive statistics as methods of data analysis. The results showed a significant positive association between environmental accounting and firm size (one of the proxies for performance); because larger firms had the resources to invest in social welfare practices than small firms. Charlo, Moya and Munoz (2017) conducted a cross-sectional and longitudinal survey to analyze the association between social performance and financial performance of Spanish listed firms. The Spanish Responsibility Index (FTSE4Good IBEX), a listing of socially responsible companies was published in 2008. The study covering the period 2008 to 2013 was aimed at examining the link between social performance and financial performance of the Spanish responsibility indexed companies and those not listed as socially responsible companies. The results of the survey revealed that socially responsible firms continue to voluntarily incorporate good corporate social responsibility practices into their business plans and policies than others; and such companies exhibit higher systematic risk and have larger firm size. However, being socially responsible does not mean better profits or business results, the study noted.

Ezeagba, John-Akamelu and Umeoduagu (2017) noted that the debate on corporate social responsibility practices has brought about the design of corporate performance indices in a greater context under the subtle influence of social and environmental factors to develop a holistic view of a firm's performance. Thus, their study examined the link between financial performance and environmental accounting disclosures of food and beverage companies in Nigeria for the period 2006 to 2015. Secondary data on the study variables were obtained from the annual reports of selected companies. The methods employed for the analysis of data include Pearson's correlation and multiple regression techniques based on windows SPSS 20 version. The results showed a mixed effect; that environmental accounting disclosures had a significant association with return on equity; and a negative relationship with return on capital employed and net profit margin. Hilmi (2016) examined the effect of social performance and environmental performance on financial performance of companies listed on the Indonesian Sustainability Index for the period 2012 to 2013. Secondary data obtained through content analysis of the financial statements of sampled companies were analyzed using descriptive statistics and multiple regression technique. The study found that social performance and environmental performance had significant positive effect on financial performance.

Agbiogwu, Ihendinihu and Okafor (2016) investigated the impact of environmental social cost on performance of manufacturing firms in Nigeria. Secondary data was collected from the annual reports of 10 sampled companies listed on the NSE for the year 2014. The regression results based on SPSS version 20 revealed that environmental social cost had significant effect on financial performance. Umoren, Isiavwe-Ogbari and Atolabge (2016) examined the determinants of corporate social responsibility disclosure practices of listed companies in Nigeria. Secondary

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data for the study was collected from the financial reports of 45 sampled companies for the period 2013 to 2014. The study employed descriptive statistics, correlation and regression techniques as tools for data analysis. The findings revealed that corporate social responsibility disclosure practices were influenced by the size of the firm and auditor type, but profitability had no effect on CSR.

Magara, Aming'a and Momanyi (2015) examined the effect of environmental accounting of financial performance of companies in Kisii County of Kenya for the period 2006 to 2011. The study made use of both primary data (obtained through a structured questionnaire) and secondary data (collected from the financial statements of 16 sampled companies). Data obtained for the study was analyzed using qualitative and quantitative techniques based on descriptive and inferential statistics. The results showed that environmental accounting had significant positive effect on financial performance. Makori and Jagongo (2013) investigated the relationship between environmental accounting and profitability of companies listed in the Bombay Stock Exchange in India. Secondary data for the study variables was obtained from published financial statements of 14 randomly selected companies for the year 2007. Data collected was analyzed using multiple regression technique, and the results revealed mixed effects: environmental accounting was shown to have significant negative link with return on capital employed and EPS; and a significant positive relationship with net profit margin and DPS.

Babalola (2012) examined the association between corporate social responsibility and profitability of firms listed in Nigeria using secondary data for the period 1999 to 2008. Data collected from the financial statements of 10 companies (a random selection) were analyzed using OLS techniques. The results revealed that corporate social responsibility cost had negative relationship with firm profitability (measured by profit after tax). Bessong and Tapang (2012) investigated the influence of social responsibility cost on profitability of quoted banks in Nigeria. Secondary data collected from a sample of 5 banks included in the study were analyzed using OLS regression technique. The study found that social cost and pollution cost (proxy for social responsibility cost) had significant negative influence on profitability.

METHODOLOGY

The methodology adopted in carrying out this study is presented in this chapter. Subthemes discussed in the following sections include research design, source of data, model specification and methods of data analysis.

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Research Design

This study is a case study of GlaxoSmithKline Consumer Nigeria PLC, a leading manufacturer of pharmaceutical and consumer healthcare products, based on the ex post facto research design. The study therefore made use of already existing secondary data. This design ensures the reliability of data since the data was outside the researcher's manipulation.

Source of Data

Secondary data for the study was collected through content analysis of the annual reports of GlaxoSmithKline for the period covering 2011 to 2018. The company's annual reports were downloaded from their website. Therefore the number of years covered by the study was influenced by the availability of the needed information on the internet.

Model Specification

This study adopted profit after tax (PAT) representing profitability as the dependent variable; and the proxies for social cost accounting, employee benefits and incentives (EBI) and contribution to government revenue (CGR), were used as the independent variables. For ease of analysis, the following model which has been widely used by past researchers such as Etale and Uzakah, Daferighe, et al (2019), Ahmad et al (2018) and Makori and Jagongo (2013) was adopted:

$PAT = f\ (EBI, CGR)$

The above model was translated into an econometric equation in the form of;

$PAT = \alpha + \beta_1 EBI + \beta_2 CGR + e$ Equation 1

Where,

PAT = Profit after tax, proxy for profitability, the dependent variable.

EBI = Employee benefits and incentives, an element of social cost accounting, one of the independent variables.

CGR = Contribution to government revenue, another element of social cost accounting, the second independent variable.

α = is the intercept or constant

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β_1 and β_2 = are the coefficients of the independent variables to be determined, that is, the extent of the relationship between the dependent variable and the independent variables.
e = is the error term of the equation.

Methods of Data Analysis

This study employed descriptive statistics and multiple regression technique based on the E-view 10 software, following the model specified above, as the methods of data analysis. This technique is efficient and consistent and possesses the unique properties of best linear estimator compared to other estimation techniques.

RESULTS OF DATA ANALYSIS AND DISCUSSION OF FINDINGS

Presentation of Data

Annual data for the study variables generated through content analysis of GlaxoSmithKline's annual reports are presented in Table 1. The data represent annual figures (in millions of Nigerian Naira) for the variables computed from the company's annual reports, adopted for the study for the eight years period 2011 to 2018.

Table 1: Annual Figures of the Study Variables

	Dependent Variable	**Independent Variables**	
Year	**PAT**	**EBI**	**CGR**
2011	2,919	2,881	1,396
2012	2,824	2,284	1,390
2013	2,378	2,070	1,348
2014	2,295	1,734	1,198
2015	1,849	1,678	998
2016	873	1,653	899
2017	486	1,556	638
2018	618	1,541	543

Source: Researchers' computation from Annual Reports of Glaxo

Results of Data Analysis

Descriptive Statistics

The summary of the descriptive statistics of the variables is shown in Table 2. Table 2 shows that PAT, EBI and CGR have mean of 1,780.25, 1,924.63 and 1,051.25 respectively. On the other

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hand, the maximum values of PAT, EBI and CGR are 2,919.00, 2,881.00 and 1,396.00 respectively. While there minimum values are 486.00, 1541.00 and 543.00. Table 2 further shows that the standard deviation of PAT, EBI and CGR are 990.11, 465.82 and 337.70 respectively. The indication is that PAT is the most dispersed variable among the variables in the study, while CGR is the least dispersed among the variables. The Jarque-Bera statistics and the associated probability values also shows that PAT, EBI and CGR are normally distributed with probabilities of 0.636, 0.399 and 0.671 (which are greater than 5 per cent), respectively.

Discussion of Findings

Table 3 shows the results of the multiple regression analysis. From the results, the independent variables combined significantly explained changes in the dependent variable with probability of F-statistic value of 0.000989 (at 5% level of significance). Secondly, the coefficient of determination (R-squared) value of 0.937173 indicates that 94% of changes in the dependent variable are accounted for by the combined effect of variations in the independent variables. Also, the adjusted R- squared value of 0.912043 indicates that the model used is a proper and good fit for testing the hypotheses of the study. This provides a high confidence level (at approximately 91% for acceptance of the goodness of the study model. Furthermore, the Durbin- Watson statistics value of 2.297410 is approximately equal to the 2.0 benchmark, which indicates the non-existence of serial auto correlation among the independent variables.

Table 2: Descriptive Statistics

	PAT	**EBI**	**CGR**
Mean	1780.250	1924.625	1051.250
Median	2072.000	1706.000	1098.000
Maximum	2919.000	2881.000	1396.000
Minimum	486.0000	1541.000	543.0000
Std. Dev.	990.1065	465.8221	337.7043
Skewness	-0.239272	1.172042	-0.382283
Kurtosis	1.422724	3.135650	1.656370
Jarque-Bera	0.905601	1.837711	0.796635
Probability	0.635845	0.398975	0.671449
Sum	14242.00	15397.00	8410.000
Sum Sq. Dev.	6862176.	1518932.	798309.5
Observations	8	8	8

Source: E-views 10 output

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Regression Results

Table 3: Multiple Regression Results
Dependent Variable: PAT
Method: Least Squares
Date: 03/14/20 Time: 05:02
Sample: 2011 2018
Included observations: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1395.790	470.8963	-2.964113	0.0314
EBI	0.257530	0.387494	0.664606	0.5357
CGR	2.549717	0.534501	4.770280	0.0050

R-squared	0.937173	Mean dependent var.	1780.250
Adjusted R-squared	0.912043	S.D. dependent var.	990.1065
S.E. of regression	293.6419	Akaike info criterion	14.48260
Sum squared resid	431127.8	Schwarz criterion	14.51239
F-statistic	37.29201	Hannan-Quinn criter.	14.28167
Prob.(F-statistic)	0.000989	Durbin-Watson stat	2.297410

Source: E-views 10 Output

Overall, the regression results used to verify the relationship between social cost accounting, (EBI and CGR) and profitability (PAT) indicated strong significant relationship between the independent variables and dependent variable going by the probability of F-statistic value. Overall the regression results showed that social cost accounting has a statistically significant relationship with profitability. The findings of this study are in agreement with the study findings of Ahmad et al (2018), Hilmi (2016), and Magara et al (2015).

Test of hypotheses

The calculated values of the co-efficient of the independent variables were used in testing the study hypotheses in the following sections.

Employee Benefits and Incentives (EBI) and Profit after Tax (PAT)

There is no significant relationship between EBI and PAT. From Table 3, the coefficient of EBI is 0.257530 with a P-value of 0.5357. This means that EBI has a positive but not significant relationship with PAT (which means that it is statistically not significant at 5% level). Therefore, the null hypothesis is accepted. The implication is that a 0.26 unit change in PAT will lead to 1 unit change in EBI.

Contribution to Government Revenue (CGR) and Profit after Tax (PAT)

There is no significant relationship between CGR and PAT. Again, from Table 3 the coefficient of CGR is 2.549717 with P-value of 0.0050. This means CGR has positive significant relationship with PAT; this is statistically significant at 5% level. So the null hypothesis is rejected. The economic interpretation is that 2.55 units change in PAT will bring about 1 unit change in CGR.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This study examined the relationship between social cost accounting and profitability using GlaxoSmithKline Consumer Nigeria PLC as a case study. Employee benefits, incentives, etc (EBI) and contribution to government revenue (CGR), were used to represent social cost accounting (the independent variables); while profit after tax (PAT) was used as proxy for profitability (the dependent variable). The findings of the study are summarized as follows:

1. Employee benefits and incentives (EBI) had positive but not statistically significant link with profit after tax (PAT) with p-value of 0.53 and co-efficient of determination of about 0.26. Meaning that a unit change in PAT will bring about 0.26 unit change in EBI.
2. Contribution to government revenue (CGR) had positive significant relationship with profit after tax (PAT), with p-value of 0.005 this is significance at 5% level. The 2.55 co-efficient of determination of CGR implies that a unit change in PAT will lead to 2.55 units change CGR.

Conclusion

This study examined the relationship between social cost accounting and profitability with a focus on GlaxoSmithKline Consumer Nigeria PLC in a case study. The study adopted employee benefits, incentives welfare and healthcare cost (EBI) and contribution to government revenue (CGR) as proxy for social cost accounting (the independent variables), while profit after tax (PAT) representing profitability was adopted as the dependent variable. Secondary data for the selected study variables were obtained through content analysis of the annual reports of GlaxoSmithKline for the period 2011 to 2018. The study employed descriptive statistics and

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multiple regression analysis based on the E-view 10 software as techniques for data analysis. The results revealed that all the independent variables had positive relationship with profit after tax, but only contribution to government revenue was significant at 5% level. The regression results also showed that the coefficient of determination (R-squared) value of approximately 0.94 indicating that 94% of changes in the dependent variable are accounted for by the combined effect of changes in the independent variables. The combined effect of variations of the explanatory variables significantly explained changes in the dependent variable with probability of F-statistic value of 0.000007 (at 5% level of significance). Furthermore, the adjusted R-squared value of 0.91 indicates that the model used for the analysis is a proper and good fit. The study concluded that social cost accounting is significantly related to profitability.

Recommendations

Based on the findings of this study it is recommended that the management of GlaxoSmithKline should continue to implement the social cost accounting policies already put in place as these provide a good social image for the company. The positive assessment of the company by society would guarantee the long run success and survival of the company.

Contribution to knowledge

The study contributed to knowledge by demonstrating that it is possible to identify unique set of data to explain the relationship between social cost accounting and profitability or performance. Most scholars have difficulty in finding data from the annual reports of a company to run a regression. This study contributed to knowledge by being able to find qualitative social cost related data within the accounts of the entity in focus to demonstrate this relationship. This is a clear deviation from previous studies.

Suggestions for further study

It suggested that future studies need to be conducted on this topic to cover the whole of the pharmaceutical sector of the economy as well all other sectors to be able come out with results that would apply generally to all sectors of the economy. It is all necessary to extend the period covered in order to come up more meaningful results that would address the long run relationship between the variables.

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