**CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE AND FINANCIAL PERFORMANCE OF SELECTED QUOTED FIRMS IN NIGERIA**

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**BEING A DOCTORAL THESIS PRESENTED TO THE DEPARTMENT OF ACCOUNTING, SANUSI LAMIDO SANUSI COLLEGE OF BUSINESS AND MANAGEMENT STUDIES, IGBINEDION UNIVERSITY, OKADA, IN PARTIAL FULFILMENT FOR THE AWARD OF DOCTOR OF PHILOSOPHY (Ph.D.) DEGREE IN ACCOUNTING**

**SUPERVISORS: DR. O.O.K. ATU**

**PROF. A.E. OKOYE**

# DECLARATION

I declare that:

1. This thesis is based on the study undertaken by me, AGBO, Innocent Sunny, in the Department of Accounting, Igbinedion University, Okada, under the Supervision of Dr. Atu, Omimi-Ejoor Osaretin Kingsley and Prof. A.E. Okoye.
2. This thesis has not been submitted elsewhere for the award of a degree or diploma.
3. The ideas and views of the research thesis are products of a research undertaken by me. Where the ideas and views of other authors/researchers have been expressed, they have been duly acknowledged.

Signature:

Name: AGBO, Innocent Sunny Matriculation Number: PG/17/019890/BMS

Date:

DEPARTMENT OF ACCOUNTING IGBINEDION UNIVERSITY, OKADA

# DEDICATION

I dedicate this study to GOD ALMIGHTY, my spiritual fathers and mothers worldwide, my amiable, loving caring, understanding and prayerful family, and all those who believe that it is wrong to give up on the day when the night has not come.

# CERTIFICATION

We, the undersigned, certify that this research work was carried out by AGBO, Innocent Sunny and is adequate in scope and quality. The necessary requirements in respect of the Ph.D. (Accounting) degree have been strictly followed.

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**ABSTRACT**

This research examined the effect of corporate social responsibility disclosure on financial performance using selected listed firms in Nigeria. The focus is on the quoted non- financial firms. That is, those firms not covered by Banks and other financial institutions Act of 1991 as amended. The lack of attention to corporate social responsibility disclosure has been called into question due to the recognition that corporate social responsibility is an increasingly important part of an organisation’s total value. The choice of looking at the non-financial firms is because experience has shown that they fall under the most socially sensitive firms, especially in environmental dimensions. The research’s specific objectives examined whether corporate social responsibility disclosure (proxied by Gifts and Donations, Employment of indigenous staff, and Environmental Activities) has an effect on Financial Performance (proxied by Earnings Per-Share, Return on Equity, Return on Asset, and Share Price). Using data from 86 non-financial companies listed on the Nigerian Stock Exchange, within a time period of 22 years (1997 – 2018), hypotheses were developed and were subsequently analysed and tested using the Panel Least Square regression technique. Consequently, findings showed that Gifts and Donations has a positive significant effect on Financial Performance considering Share Price, Return on Assets, and Return on Equity, but showing no significant effect on Earnings per Share. Furthermore, Employment of Indigeneous Staff was seen to have a positive significant effect on Finacnial Performance considering Return on Assets, Return on Equity, and Eanings per Share, however, showing a negative significant effect on Share Price. Also, Environmental Activities was seen to have a positive significant effect on Financial Performance considering Share Price and Return on Equity, on the other hand showing a negative significant effect on Return on Assets and Earnings per Share. The study concludes that corporate social responsibility disclosure has significant impact on financial performance of quoted non-financial firms in Nigeria. This implies that increase in corporate social responsibility disclosure increases the financial performance of the firms. Based on these findings and conclusion, the study recommended among other things that; corporate social responsibility disclosure should be encouraged in order to improve the brand and image reputation of the companies. Consequently, there is a need for effective regulation of corporate social responsibility disclosure practices of companies in Nigeria. Hence, the need for external verification of corporate social responsibility claims as well as ascertaining the reliability and authenticity of corporate social responsibility disclosures representation in the accounting record. The study contributed to the existing body of knowledge as the study analysed components of the dependent and independent variables in arriving at more conclusive findings. The time period employed in the study (22 years) which is relatively long as against previous studies is a contribution to the existing body of knowledge.

**Keywords:** Corporate social responsibility disclosure, Employment of indigenous staff, Environmental activities, Financial performance, Gifts and Donations, Quoted firms

# Word Count: 455

**CHAPTER ONE**

# INTRODUCTION

# Background to the Study

The increasing demand for companies to be socially responsible seems to have witnessed considerable perceptual divergences especially within the context of the stakeholder- shareholder debate. The idea which underlies the “shareholder perspective” is that the only responsibility of managers is to serve the interests of shareholders in the best possible way using corporate resources to increase the wealth of the latter by seeking profits (Jensen, 2001). In contrast, the “stakeholder perspective” suggests that besides shareholders, other groups or constituents are affected by a company’s activities (such as employees or the local community), and have to be considered in managers’ decisions, and the shareholders (Werhane & Freeman, 1999). Corporate social responsibility disclosure (CSRD) has attracted much attention in the last three decades (Smith, 2003).

In 1929, the market crash on Wall Street led to the emergence of CSR (Lemus, 2016). The main goal and objective of CSR is to align social aspirations and compliance with governance in the business sector. CSR continues to drive small and large business enterprises by helping them achieve the status of a “good citizen”. For instance, small companies increase their social engagement activities. In Australia, the business sector found a mutual relationship between stakeholder and social capital theories. Ferrell, Fraedrich and Ferrel (2015) indicated that stakeholder theory was understood by three approaches such as normative, descriptive and instrumental. The normative approach deals with ethical guidelines. The descriptive approach suggests the importance of understanding a firm’s business behaviour in addressing business decision strategies. The instrumental approach embraces management and organization processes. According to Sen and Cowley (2013), social capital theory, broadly speaking, refers to social values

within the business environment. Therefore, research studies indicate that the CSR conceptual framework brings more alignment in small companies than in medium and larger enterprises (Sen & Cowley, 2013).

Corporate social responsibility (CSR) has gained wide recognition in different sectors of various economies worldwide. However, there are different perceptions of what corporate social responsibility entails. It was originally defined as the commitment to society beyond the economic and legal obligations with the aim of managing and augmenting the ramifications of their operations on the economy, environment and society ranging from firm to global scales. According to Geetika and Shukla (2017), the Triple Bottom Line concept (the 3Ps), People, Profit and Planet, are great determinants of the sustainability of an organized business. The 3Ps model enables an organized business to appreciate the long term significance of corporate social responsibility so that it can be embraced as a framework for facilitating profitability.

An efficient corporate governance framework will help in mitigating a recurrence of global financial crises such as the one that happened in East Asia in the late 90s as well as the American corporate scandals like the case of Enron, world.com and Anderson in 2001- 2002 (Strandberg, 2005). Therefore, an efficient corporate governance and CSR framework will ensure that corporations act as good corporate citizens with regard to human rights, social responsibility and environmental sustainability. Conversely, Munisi and Randoy (2013) hinted that companies across sub-Saharan Africa partly implemented good governance practice.

In Nigeria, the role of corporations to reflect social responsibility and nation building is also defined by the goals and objectives of the National Economic Empowerment Development Strategies (NEEDS) expressed in the provision of health care facilities,

social welfare, employment, poverty reduction through skill acquisition and entrepreneurship, etc.

Corporate Social Responsibility Disclosure (CSRD) refers to a company’s systematic disclosure or exposure of information on its social performance. The term social performance is understood in a broad sense and refers to social, environmental, and governance issues that are typically not covered by financial performance metrics. In contrast to Managerial Accounting, CSRDs primarily addres external stakeholders such as customers, investors, and the public. In absene of formal mandatory rules, CSRDs significantly vary in form (design, distribution, media, disclosing frequency, etc) and content (scope quality, etc) (Encyclopedia of CSR, 2013). In other words, it is a voluntary activity particularly in developing countries where at least there is no laws enforcing its practice and as such it will be interesting to appreciate which ompanies disclose information about social and encironemtnal activities and the extent of such disclosure (Coffie, Aboagye-Otchere & Musa, 2018).

CSRD can be defined as the information that a company discloses about its environmental impact and its relationship with its stakeholders by mans of relevant communication channels (Campbell, 2004; Gray, Javad, Power & Sinclair, 2001). It discloses information on what the firms have done for the sake of the community. It also shows the disclosure of firms’ action on what they have been contributing to the welfare of society and what they will do in the future for the welfare and interest of society. Usually the disclosure is disclosed in a social responsibility report and published in company’s website or annual report of public listed companies. CSRD is very important to company’s stakeholders. The stakeholders of the company always take note of the disclosure because it shows what the company plans to do, and have done for the welfare of society.

By the disclosure of CSR information, a firm addresses the information needs of stakeholders and provides a basis for dialogue between the firm and its stakeholders. As a critical avenue for stakeholder management, CSR disclosure shapes external perceptions of the firm, helps relevant stakeholders assess whether the firm is a good corporate citizen, and ultimately justifies the firm’s continued existence to its stakeholders. Geib and Strawser (2001) argued that a greater level of reporting was itself a form of social responsible behaviour. Branco and Rodrigues (2006) noted that Corporate Social Responsibility was seen as a source of competitive advantage and not as an end in itself. In effect, the concept of CSR has evolved from being regarded as detrimental to a company’s profitability to being considered as somehow benefiting the company as a whole, at least in the long run. Corporate social responsibility disclosure is basically divided into two: the mandatory disclosure and the voluntary disclosure. The mandatory disclosure is backed by law and practiced in the developed or western countries. Failure to disclose in these countries attracts statutory sanctions.

The voluntary disclosure on the other hand, is not backed by law. This means that companies that practice this type of disclosure are at liberty to disclose or not to disclose. And failure to disclose attracts no statutory penalties or sanctions. Most of the African nations practice the voluntary disclosure including Nigerian. This study therefore, is devoted to the voluntary disclosure, being carried out in Nigeria. The disclosure measures adopted in this study include: Gifts and donations (GD); Employment of indigenous staff (EIS); and Environmental activities (EA).

Gifts and donations (GD) is the amount of gifts and donations by the firm expressed in monetary terms. Employment of indigenous staff (EIS) is the ratio of number of indigenous staff employed by the firm to the total number of staff in the firm. While,

Environmental activities (EA) is the total number of activities carried out by the firm to nurture and protect the environment expressed in monetary terms.

Corporate performance refers to how well an organization achieves its market-oriented and financial goals. Performance is the function of the ability of an organization to gain and manage its resources in several different ways to develop a competitive advantage.

According to Benjalux (2006), performance measures are the lifeblood of economic units since without them no decisions can be made. Financial performance measure is one of the important performance measures for economic units. Financial performance measures are used as indicators to evaluate the success of economic units in achieving stated strategies, objectives and critical success factors.

Specifically, CSR may signal to the market that the firm is socially and environmentally responsible, and may create goodwill for the firm thus leading to positive effects for firms’ financial performance. Bowen (2000), in this regard, explained that corporations engaged and reported their CSR activities in order to increase their social visibility and improve stakeholder relations as they create promotional opportunities for the firm. Furthermore, many CSR activities are made on the basis of presenting corporations in a positive light and providing reputation effects that improve how the organization is perceived. In addition, Roberts and Dowling (2002) explained that corporate social responsibility initiative could lead to a reputation advantage which could result to an improvement in investment trust, new market opportunities, and positive reactions on the capital market which could ultimately enhance organizations’ financial position.

The measures of financial performance used in this study are: Return on assets (ROA); Return on equity (ROE); Earnings per share (EPS); and Share price (SP). This study focuses on the quoted non-financial firms in Nigeria.

Return on assets (ROA) is equal to a fiscal year’s net income (after preferred stock dividends but before common stock dividends) divided by total assets. Return on equity (ROE) is equal to a fiscal year’s net income (after preferred stock dividends but before common stock dividends) divided by total equity (excluding preferred shares), expressed as a percentage. Earnings per share (EPS) is the earnings after interest and taxes divided by total ordinary shares. Also known as price earnings ratio, it is measured by the stock price. While Share price (SP) is measured by price earnings ratio.

# Statement of the Research Problem

The choice of the study for quoted non-financial companies was informed by the gaps created in previous studies in the area. This study was poised to fill those gaps. Firstly, so much that has been written on this subject area concentrated on the financial sector such as banks, insurance companies, other finance houses, etc Ehioghiren and Eneh (2019); Oyewumi, Ogumeni and Oboh (2018); Wan and Muhammad (2016); Mahbuba and Farzana (2013); El Mosaid and Boutti (2012); Amole, Adebiyi and Awolaja (2012); Keffas and Olulu-Briggs (2011); Abbott and Monsen (1979); Alexander and Buchholz (1978); Preston (1978); Vance (1975); Moskowitz (1972). But not much has been written that emphasised the non-financial sector of the economy.

Secondly, most of the researches conducted in this area adopted Corporate Social Responsibility Disclosure (CSRD) and Financial Performance (FP) as single variables Wakesa (2017); Babalola (2012); Matthew, Rebecca and Greg (2007); McWilliams and Siegel (2000).

Thirdly, most of the studies conducted in this area used small samples (from 1 – 10 samples); thus making the generalization of results to be unreliable and inconsistent, Wekesa (2017); Seungwo, Junseok & Ahreum (2017); El Mosaid and Boutti (2012);

Anderson and Frankle (1980); Ingram (1978); Preston (1978); Spicer (1978); Sturdivant

amd Ginter (1977); Heinze (1976); Bowman and Haire (1975); Folger and Nutt (1975);

Bragdon and Marlin (1972); Moskowitz (1972).

Fourthly, most of the researches in this area concentrated on Asian and European countries or developed nations such as Malaysia, China, India, Italy Bangledash, etc. Not much has been done in African countries, especially Nigeria, Wan and Muhammad (2016); Mahbuba and Farzana (2013); Iqbal (2012); El Mosaid and Boutti (2012); Keffas and Olulu-Briggs (2011); Abbott and Monsen (1979); Alexander and Buchholz (1978); Preston (1978); Vance (1975); Moskowitz (1972).

Finally, the time periods employed in the previous studies were too short (1 – 5 years), Wekesa (2017); Seungwo Junseok and Ahreum (2017); Uweigbe and Egbide (2012); El Mosaid and Boutti (2012). This makes it necessary for further studies in this study area.

Based on the above gaps in this area of studies in Nigeria, this study attempts to carry out an investigation on corporate social responsibility disclosure (CSRD) and financial performance in selected quoted firms along several dimensions. These include further examination of CSRD using extended dimensions; large sample size, longer and more recent period of study and a wider coverage of industries.

# Objectives of the study

The broad objective of this study was to ascertain the impact of corporate social responsibility disclosure (CSRD) on financial performance of selected quoted firms in Nigeria. The specific objectives were to:

* + 1. Examine whether gifts and donations (GD) has any significant impact on financial performance (FP) of selected quoted firms in Nigeria;
    2. Ascertain if employment of indigenous staff (EIS) has any significant effect on financial performance (FP) of selected quoted firms in Nigeria;
    3. Establish whether environmental activities (EA) have any significant impact on financial performance (FP) of selected quoted firms in Nigeria.

# Research Questions

The following research questions were posed for the study:

* + 1. Does gifts and donations (GD) have any significant impact on financial performance (FP) of selected quoted firms in Nigeria?
    2. Does employment of indigenous staff (EIS) have any significant effect on financial performance (FP) of selected quoted firms in Nigeria?
    3. Do environmental activities (EA) have any significant impact on financial performance (FP) of selected quoted firms in Nigeria?

# Hypotheses of the study

The following null hypotheses were formulated for the study:

**Ho1:** Gifts and donations (GD) has no significant impact on financial performance (FP) of selected quoted firms in Nigeria.

**Ho2:** Employment of indigenous staff (EIS) has no significant effect on financial performance (FP) of selected quoted firms in Nigeria.

**Ho3:** Environmental activities (EA) have no significant impact on financial performance (FP) of selected quoted firms in Nigeria.

# Significance of the study

This study will be beneficial to all aspects of economic units, that is, public limited companies, stakeholders, creditors, debtors, host communities, shareholders, investors,

managers, employees, etc, and also the international community in areas of standardization of new improved formats for disclosure in companies using corporate social responsibility.

The relationship between CSR disclosure and corporate financial performance is important to both researchers and managers. A relationship between these variables could have a significant impact on how managers approach CSR, and whether their firms are likely to participate or not. A negative relationship might provide a warning to managers to think carefully when deciding on whether to undertake CSR (Cochran, 1984). This research adds to previous literatures by controlling variables that were pointed out in previous research papers. CSR is a new trend and always changing so, this research provides evidence of whether or not there is a relationship (positive or negative) between CSR disclosure and corporate financial performance in quoted non-financial companies.

This study will also be useful to communities especially those in the oil producing areas of Nigeria where a lot of social and environmental hazards have been unleashed on the people by the activities of the corporations which operate there. The study will also be useful to government and other regulatory agencies in the formulation of policies to foster CSR activities in Nigeria as most companies are not committed to their CSR obligations. The study will also be useful to other researchers who are interested in conducting further researches in this area by providing a good background for them. For managers, the empirical nature of this study will help them to examine how and in what proportion CSR activities impact on their corporate performance and also which corporate performance measure reacts more to CSR activity. These are very interesting issues for management.

# Scope of the Study

This study examined the effect of corporate social responsibility disclosure on financial performance of selected quoted non-financial companies in Nigeria. Corporate social responsibility disclosure (CSRD) is proxied by gifts and donations (GD); employment of indigenous staff (EIS); and environmental activities (EA). Additionally, financial performance (FP) is proxied by Return on Equity (ROE); Return on Assets (ROA); earnings per share (EPS); and share price (SP). This study was restricted to the secondary data obtained from the published financial statements in the annual reports and accounts of the sampled companies whose shares were publically traded on the floor of the Nigerian Stock Exchange from 1997 to 2018 (22 years). The selected companies were: Afromedia, Capital Hotel, Daar Communications, DN Tyre & Rubber, Ikeja Hotel, RT Briscoe, Tantalizers, Tourist Company of Nigeria, Transcorp Hotels, University Press, Afrik Pharmaceuticals, Ekocorp, Evans Medical, Fidson Healthcare, GlaxoSmithKline Nigeria, Neimeth International Pharmaceuticals, Nigeria-German Chemicals, Pharma-Deko, Union Diagnostic & Clinical Services, African Paints (Nigeria), Aluminum Extrusion Industries,

O.C. Gases Nigeria, Berger Paints, First Aluminum Nigeria, Meyer, Paints & Coatings Manufactures, Port & Paints & Products Nigeria, Premier Paints, Thomas Wyatt Nigeria, Cadbury Nigeria, Champion Breweries, Dangote Flour Mills, Dangote Sugar Refinery, Flour Mills of Nigeria, FTN Cocoa Processor, Guinness Nigeria, Honeywell Flour Mill, International Breweries, Livestock Feeds, McNichols, Morison Industries, Multi-Trex Integrated Foods, Cascon Allied Industries, Nestle Nigeria, Nigerian Breweries, Nigerian Enamelware, Northern Nigeria Flour Mills, Okomu Oil Palm, Presco, PZ Cussons Nigeria, Nascon Allied Industries, Unilever Nigeria, Union Dicon Salt, Vitaform Nigeria, ABC Transport, A.G. Leventis Nigeria, Academy Press, Beta Glass Co, Cement Company of Northern Nigeria, Dangote Cement, Global Spectrum Energy Services, Interlinked

Technologies, John Holt, Julius Berger Nigeria, Studio Press (Nigeria), Red Star Express, Lafarge Africa, SCOA Nigeria, Nigerian Aviation Handling Company, Trans-Nationwide Express, Tripple Gee & Co., UAC of Nigeria, Capital Oil, Conoil, Forte Oil, MRS Oil Nigeria, Japaul Oil & Maritime Services, Total Nigeria, Seplat Petroleum Development, Eterna, Anino International, Caverton Offshore Support Group, Africa Prudential Registrars, Computer Warehouse Group, Courteville Business Solutions, E-Tranzact International and Omatek Ventures.

# Limitations of the Study

A considerable amount of effort went into writing this empirical research. However, some factors which were unavoidable contributed to limiting the study. Data were limited to only the disclosed information on CSR variables found in the financial statements and footnotes in the annual reports and accounts of the sampled companies. The data used were self-reported by the companies involved. Lack of universal standards for CSR disclosure may have limited the sample size of the companies involved. However, the study accomplished its objectives.

# Definition of Operational Terms

**Corporate social responsibility**: These are responsibilities of companies or firms to their society or immediate environment.

**Corporate social responsibility disclosure:** This discloses information on what the firms have done for the sake of the community. It also shows the disclosure of firm’s action on what they have been contributing to the welfare of society and what they will do in the future for the welfare and interest of society.

**Financial performance**: Overall performance of an organization in relation to cash/money.

**Earnings per share**: This is the profit after preference share and taxation.

**Employment of indigenous staff (EIS):** Engagement of the indigenes of the host community in the services of the companies at all levels.

**Environmental activities (EA):** All actions/activities taken/to be taken in other to safeguard or protect the environment by the companies.

**Gifts and Donations (GD):** Quantifiable gifts and donations in monetary terms including community development activities by the companies.

**Non-financial companies:** Means all quoted companies on the Nigerian Stock Exchange excluding those that perform financial services such as banks, finance houses, insurance companies, etc. That is those companies not covered by Banks and other financial institutions Act (BOFIA) of 1991 as amended to date.

**Return on assets:** This is the profitability of a company in relation to its assets.

**Return on equity**: This is the profitability of a company based on the investment of the shareholders.

# CHAPTER TWO LITERATURE REVIEW

# Introduction

This chapter conducted a systematic review of related literatures from recent to most recent which covered the variables in the study. It presents a review of the extent of literatures on the study as well as dependent and indigenpent variables, relevant conceptual and theoretical framework. Also presented are the major approaches by previous researchers which include analysis and findings.

# Conceptual Framework

A conceptual framework is a structure which the researcher believes can best explain the natural progression of the phenomenon to be studied (Camp, 2001). It is linked with the concepts, empirical research and important theories used in promoting and systemizing the knowledge espoused by the researcher (Peshkin, 1993). It is the researcher’s explanation of how the research problem would be explored. The conceptual framework presents an integrated way of looking at a problem under study (Liehr & Smith, 1999). In a statistical perspective, the conceptual framework describes the relationship between the main concepts of a study. It is arranged in a logical structure to aid provide a picture or visual display of how ideas in a study relate to one another (Grant & Osanloo, 2014). The framework makes it easier for the researcher to easily specify and define the concepts within the problem of the study (Luse, Menecke & Townsend, 2012). Miles and Huberman (1994) opined that conceptual frameworks can be ‘graphical or in a narriative form showing the key variables or constructs to be studied and the presumed relationships between them.’

A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. Strong conceptual frameworks capture something real and do this in a way that is easy to remember and apply. The dependent and independent variables were discussed under the conceptual framework.

# Dependent Variable

Dependent variable is the variable that depends on other factors that are measured. These variables are expected to change as a result of an experimental manipulation of the independent variable or variables. It is the presumed effect. It is what you measure in the experiment and what is affected during the experiment (Cramer & Howitt, 2004). It is the variable that depends on other factors that are measured. These variables are expected to change as a result of an experimental manipulation of the independent variable or variables. It is the presumed effect. The dependent variable is the variable tested or controlled in an experiment to test the effect of the independent variable (Baridam, 1999). In this study, financial performance was the dependent variable.

# Corporate Financial Performance

Corporate financial performance refers to the act of performing financial activities. In a broader sense, corporate financial performance refers to the degree to which financial objectives are being or have been accomplished. It is the process of measuring the results of a firm’s policies and operations in monetary terms. According to Investopedia (2018), corporate financial performance is a subjective measure of how well a firm uses assets from its primary mode of business to generate revenues. The term is also used as a general measure of a firm’s overall financial health.

According to Verma (2019) corporate financial performance, in a broader sense, refers to the degree to which financial objectives are being or have been accomplished, and is an important aspect of finance risk management. It is the process of measuring the results of a firm’s policies and operations in monetary terms. It is used to measure a firm’s overall financial health over a given period of time and also to compare similar firms across the same industry or to compare industries or sectors in aggregation (Metcalf & Titard, 1976).

Verma (2019) also asserted that corporate financial performance analysis included the analysis and interpretation of financial statements in such a way that it undertook full diagnosis of the profitability and financial soundness of the business. The financial analyst programme provides vital methodologies of a financial analysis. Areas of financial performance analysis (firm’s production and productivity performance or total business performance) are working capital analysis, financial structure analysis activity analysis, and profitability analysis (Trivedi, 2010).

A corporate financial performance report is a summary of the financial performance of a company that reports the financial health of a company which reports how investors and stakeholders take their investment decisions (Verma, 2019).

# Measurements of Corporate Financial Performance

Although one might have expected a certain diversity of measures of CSR, there is no real consensus on the proper measure of financial performance either. In fact, there is a wide range of such measures. However, most measures of financial performance fall into two broad categories: investor returns and accounting returns. Both have enjoyed periods of popularity, and both have evolved considerably in the past decades.

*Investor Returns.* The basic idea underlying investor returns is that returns should be measured from the perspective of the shareholders. The first studies to employ investor returns as a measure of financial performance were those by Moskowjtz (1972) and Vance (1975). In both studies, changes in price per share were used as the investor returns index. As most subsequent studies have noted, this measure is clearly flawed. The change in price per share is only one element of investor returns. Dividend income is the other, and it must be included in any measure of investor returns.

Abbott and Monsen (1979) used the change in share price plus dividends as their measure of investor returns. However, it was insufficient. Simple returns (change in price per share plus dividends) fail to capture another dimension of vital importance to investors -namely, risk. In accepted finance theory, the risk of holding assets is measured by the covariance of the expected return on the asset with that of the overall market. This measure, which is commonly referred to as “beta,” is obtained for a stock by regressing its realized returns on those of a broad based market index. The regression slope coefficient provides the beta estimate. An average beta is 1. A stock with a beta above 1 is considered an aggressive stock because it tends to move faster, either up or down, than the market. Correspondingly, a stock with a beta below 1 is considered a defensive stock (Curley & Bear, 1979). It was precisely this failure to adjust for risk that led to the (apparently) contradictory results by Moskowitz (1972) and Vance (1975). Moskowitz’s study indicated that firms with high CSR ratings outperformed the market.

*Accounting Returns.* Accounting returns are the other primary methods of measuring financial performance. The basic idea behind using accounting returns as measures of financial performance is to focus on how firm earnings respond to different managerial policies. The most common measures of accounting returns used in studies of this nature

are simply earnings per share (EPS) or price/earnings (P/E) ratios. Bragdon and Marlin (1972), Bowman and Haire (1975), Folger and Nutt (1975), Heinze (1976), Preston (1978) and Spicer (1978) used EPS, P/F ratios, or some algebraic variation of them as, at least, one of the measures of financial performance in their studies.

Several problems however, are associated with using EPS or P/F ratios as a measure because both are strongly influenced by the rate of growth and accounting practices of firms (Beaver & Morse, 1978). In addition, these financial performance measures cannot be accurately compared across firms without considering financial leverage influences and risk differences. This does not mean that one cannot use accounting returns, quite the opposite. Accounting returns may be the best proxy for financial performance. However, the particular measures used in previous studies have serious defects.

Profit maximization is the sole and primary function of any organized business establishment. Therefore, when corporate social responsibility is adopted, it is believed to increase the level or rate of profitability in the organization or business. The above statement was supported by Friedman (1970) who stated that there was one, and only one, social responsibility of business: to use its resources and engage in activities designed to increase its profit as long as it stayed within the rules of the game. Thatmeans business should engage in an open and free competition without deception or fraud. For the purpose of this research, we considered Return on Equity (ROE), Return on Assets (ROA), Earnings per share (EPS), and Share Price (SP) as measurements of financial performance.

# Return on Assets (ROA)

ROA percentage shows how profitable a company’s assets are in generating revenue. It is given by the ratio between net income and total assets. This ratio tells us what the company can do with what it has got, that is, how much earnings it derives from each

monetary unit of assets it controls. It is a useful number for comparing competing companies in the same industry. The number varies widely across different industries. Return on assets gives an indication of the capital intensity of a company which depends on the industrial sector. Companies that require large initial investments will generally have lower returns on assets. This parameter is widely used in the literature (Aupperle, Carroll and Hatfield (1985), Belkaoui and Karpiks (1989), Waddock and Graves (1997), Preston and O’Bannon (1997), McWilliams and Siegel (2001) and Luce, Barber and Hillman, 2001). Hongren, Harrison and Oliver (2009) said that ROA was used to measure the profitability of a company using assets to earn income. Its formula is;

ROA= net income X 100 Total asset

Total asset= current asset+ non-current asset Net income=total earnings

Return on assets (ROA) is one of profitability ratios. In the analysis of financial statements, this ratio is most often highlighted, beause it is able to indicate company success to create profits. ROA is able to measure the company ability to generate profits in the past to then be projected in the future. Assets in question are overall company properties, obtained from the capital itself or from foreign capital that has been coverted into company assets used for corporate sustainability. Higher ROA value indicates better company performance, because of highe return on investment rate. This value reflects the company’s return on all assets (or funding) provided to the company (Wild, Subramanyam, & Halsey, 2005). Any factors affecting on return on assets (ROA) are Liquidity Ratio which is a ratio to measure a company’s ability to meet its short term liabilities, calculated by comparing its current assets with current liabilities. Asset

Management Ratio is the asset management ratio; measures how effectively the company manages its assets (Brigham and Houston, 2001). Debt Management Ratio is asset management ratio to know the extent of company’s ability to meet its long-term obligations (debt) used to finace all company activities.

According to Prastowo (2002), return on assets (ROA) is used to measure the effectiveness of the company in generating profits by exploiting its assets. This ratio may give an indication of good and bad neighbor measurement in implementing cost control or management of his property. Return on assets (ROA) is often used as a tool to measure the rate of return on total assets after interest expense and taxes (Brigham & Houston, 2001). The high return on assets (ROA) will be good for the company. To value return on assets (ROA) high would indicate that the company is able to generate profits relatively high value assets. Investors would like the company to the value of return on assets (ROA) is high, as companies with return on assets (ROA) which is capable of producing high levels of corporate profits is greater than the return on assets (ROA) is low (Ang, 2001). Return on assets (ROA) is a financial ratio used to measure the degree to which the assets have been used to generate profits. The greater return on assets (ROA) the better the company’s performance, because of the greater rate of return on investment (Riyanto, 2001).

# Return on Equity (ROE)

This is used a great deal in economic literature (Bowman & Haire, 1975; Bregdon & Marlin, 1972; Perket & Eilbirt, 1975; Spicer, 1978; Preston, 1978; Cowen, 1987; Waddock & Graves 1997; Preston & O’Bannon, 1997). ROE is equal to a fiscal year’s net income (after preferred stock dividends but before common stock dividends) divided by total equity (excluding preferred shares) and expressed as a percentage. It measures the rate of return on ownership interest (shareholders’ equity) of common stock owners. It

measures a firm’s efficiency in generating profits from every Dollar/Euro of net assets (assets minus liabilities), and shows how well a company uses investment Dollars/Euros to generate earnings growth. Reily and Brown (2012) explained the importance of ROE to stockholders to indicate the returns after accounting for all other capital providers. ROA can be analysed by its trend and its absolute number when compared with other companies (Traub 2001).

Return on equity (ROE) or also often called Return On Common Equity, in *Bahasa* Indonesia is often translated as Rentability of Own Share (Rentability of Own Capaital). Investor to buy the share will be attracted to this profitability ratio, or part of total profitability that can be allocated to shareholders. As known, shareholders has residual claim on obtained profits. Profit obtained by the company firstly will be used to pay any interest of debts, then preference share, and then (if any) will be given to common shareholders. Return on equity (ROE) is the profitability ratio to measure the company’s ability to generate profit based on eshare capital own by the copany. Return on equity can be calculated as follow (Sartono, 2001):

*Return on Equity (ROE) = Net Income After Tax*

*Total Equity*

Return on equity (ROE) shows the extent to which companies manage their own capital (net worth) effectively, measure the profitability of the investment that has been made owners of their own capital or shareholders of the company. Ang (2001) states that the higher the return on equity (ROE) will increase the profit growth. Return on equity (ROE) indicates the profitability of own capital or often referred to as business profitability (Sawir, 2005). The higher the value, the higher the ROE level of profit generated due to additional working capital can be used to finance the company’s operations that could ultimately result in profit (Suwarno, 2004). Irawan (2011) in his research found that return

on equity (ROE) affects profit growth. This is due to the nature and pattern of investments made by the company which are very precise so that all assets can be used efficiently and so that the profits can be maximized. In addition, the revenue generated by capital from debt can be used to cover the cost of capital.

Return on equity (ROE) is a closely watched financial ratio among equity investors. It is a strong measure of how well the management of a firm creates value for its shareholders. Return on equity can be defined as the amount of net income returned as a percentage of shareholders’ equity. It is one of the all time favourites and perhaps most widely used overall measure of corporate financial performance (Rappaport, 1986) which was also confirmed by Monteiro (2006). ROE is popular among investors because it links the income statement (net profit/loss) to the balance sheet (shareholders’ equity). The fact that ROE represents the end result of structured financial ratio analysis, called Du Pont analysis, also contributes towards its popularity among analysts, financial managers, and shareholders alike (Stowe, Robinson, Pinto & McLeavy, 2002).

However, for different reasons, ROE could be a misleading measure of corporate financial performance (Web & Toit, 2007). First, earnings can be manipulated within the legal framework via changes in accounting policy. Second, ROE increases with more financial leverage, as long as the returns earned on the borrowed funds exceed the cost of the borrowings. An increase in leverage beyond a certain level may translate into an increase into the firm’s systematic risk or beta. Third, ROE is also susceptible to inflation; inflation had a negative relationship with the profit margin which will, in turn, reduce ROE and expected growth (Fuller & Perry, 1981). The DuPont model of financial analysis, which is the extended version of ROE developed by F. Donaldson Brown in 1914, notably broaden the understanding of ROE:

*ROE =Net Profit x Sales x Assets Sales Assets Equity*

The three components or ratios, can be described (in sequence) as profitability, asset turnover and financial leverage. The ROE can therefore be improved by improving profitability, by using assets more efficiently and by increasing financial leverage. Over time it has become clear that improving the ROE may not necessarily improve shareholder value. Rappaport (1986) has pointed out that the second component of ROE, namely asset turnover, is affected by inflation in such a way that it may increase even when assets are not utilized better. He reasons that sales immediately reflect the impact of inflation, whereas the book value of assets, which is a mixture of new and older assets, does not adapt as quickly to the effects of inflation. Rappaport’s (1986) studies in the 1970’s revealed that although the earnings of Standard & Poor’s 400 companies decreased dramatically during the 1970s, their ROEs actually increase through increased levels of asset turnover and gearing. The markets, however, were not misled by this apparent ‘better performance’. Consequently the market returns during this period were generally very poor, or ‘dismal’, accoding to Rappaport.

Around 1989 when Reimann (1989) published his work, ROE was used extensively for measuring whether value was being created for shareholders. The reason behind the adoption of ROE as a measure was that it gave more reliable results than earnings per sharep (EPS) (Reimann, 1989). As it is important to consider how investors value the shares of a company Reimann (1989) considered a number of strategy consulting firms and found that they focus their measurements on the spread between ROE and the cost of equity. If the spread is positive, it indicates that a company has advantageous growth opportunities. Reimann (1989) also identified changes to accounting conventions (policies) as being a problem when using ROE as a performance measure. It was also

recognized that financial measures such as ROE may be too short-term and that longer- term measures, perhaps more qualitative, must be adopted as well. Reimann (1989) found that ROE still left 66 percent of the variation in share prices unexplained, indicating a large degree of unreliability.

Another problem with the use of ROE, as identified by Finegan (1991) is that it does not consider the timing of cash flows. For that reason the free cash flow model is often cited as a better means to determine whether shareholder value is being created. He also stated that investors ‘go far beyond earnings in evaluating performance’. Therefore the managers of a company cannot rely on earnings figures alone to measure performance, unless they wan to wait for investors’ reactions to see how they are performing.

Copeland, Koller and Murrin (1996) argue that ROE is a short-term performance measure and that too much focus on it can lead a company to overlook long-term growth opportunities that might increase shareholder value. A company may also be able to improve its ROE, while at the same time earning a return that is below its weighted average cost of capital (WACC), and thereby destroy value. Traditionally, all business measurements have been financial and this practice has been criticized by many commentators (Kaplan & Norton, 1996). However, as Black, Wright, and Davies (2001) recognize that there may still be a place for financial measures such as ROE and various others in what they call a ‘metrics scorecard’. It involves the the use of variety of performance measures (financial andnon-financial) to achieve certain goals.

# Earnings per Share (EPS)

EPS indicates a company’s level of profitability. Tendelilin (2010) stated that earnings per share showed the net profit of a company that was to be distributed to its shareholders therefore, the higher the earnings per share, the higher the dividend to shareholders, and

vice versa. This is a portion of the company’s net earnings and preferred stock dividends allocated to each share of the company. Its formula is:

EPS = net income-preferred dividend Average outstanding shares

or

EPS = profit before tax

Number of ordinary shares

Earnings per share (EPS) is a management tool to measure the amount of profit that can be shared to shareholders. Based on this conclusion, this ratio is a comparison of resulted income (net profit) and the mount of circulated share. According to Arifin (2002), earnings per share (EPS) is calculation result of net profit divided with the number of circulated share. If there is an increase on a company EPS growth, then there will be also an increase on investor interest at company shares. The profit used as the measure is the profit for the owners earnings after tax (EAT).

According to the Interntional Accounting Standards (IAS) 33: Earnings per share, an entity that trades equity instruments on public markets is required to disclose EPS as part of its financial statements (BDO, 2014; IFRS, 2014). EPS is a calculation that allocates a company’s profits to each of its ordinary shares (Vaidya, 2014). It serves as an indication of profitability by measuring the entity’s performance in relation to share capital that is employed to generate such returns (Koppeschaar, Sturdy, Du Toit, Deysel, Rossouw, Van Wyk, Gaie-Booysen, Papageorgiou & Van der Merwe, 2013). For the purpose of measuring EPS, provision has been made for three categories of EPS, namely basic EPS, diluted EPS and headline EPS (BDO, 2014).

Basic EPS is the simplest form of EPS (Vaidya, 2014). For the purpose of calculating basic EPS, profit or loss attributable to the holding entity must be adjusted for after-tax amounts of preference dividends (IFRS, 2014). Basic EPS divides the actual earnings after preference shares by the weighted average number of ordinary shares (Dunn, 2010). Diluted EPS is more complex than basic EPS (Kennon, 2014). Diluted EPS expresses the EPS that an entity would generate if all warrants, convertibles and options have been exercised, causing the total orindary shares capacity to increase (Koppeschaar, et al., 2013). In calculating diluted EPS, the total basic earnings are adjusted for any after-tax savings that would arise when convertible instruments are exchanged for ordinary shares before it is divided by the increased number of ordinary shares (BDO, 2014). Increases in eh quantity of ordinary shares typically result in a lower and, thus, diluted EPS (Kennon, 2014). Furthermore, both basic and diluted EPS of an entity must be disclosed on the face of the Statement of Profit or Loss and Other Comprehensive Income (BDO, 2014).

From the age old arguments of May (1968) and the more recent of Smart and Graham (2012), it is evident that growth rates in historical earnings can be used to establish possible future increases in growth potential. It is argued that EPS plays a significant role in the investment decisions taken by investors, because EPS trends can be used to measure risk and performance. In addition, it is important to study the relationship between EPS and the share price of shares. Brigham and Ehrhardt (2007) posited that EPS signals prospect to investors. EPS is therefore an indication of shareholder’s wealth and, should EPS increase, increases in the value of the share will be expected (Mkhonza, 2007). Balsam and Lipka (1998) contended that earnings explain share price behaviour, because the relationship between accounting EPS and share prices have been extensively studied. Chang, Su, Chen and Chang (2008) also concur by explaining that EPS influences share prices in the long run.

# Share Price (SP)

Share price is the price of a single share of a number of saleable stocks of a company, derivative or other financial assets. In a layman's term, the stock price is the highest amount someone is willing to pay for the stock or the lowest amount that it can be bought. Share or stock performance is the measurement of a stock’s ability to increase or decrease the wealth of its shareholders (Capozzi, 2010). Mauboussin (2012) noted a fascinating relationship between executives and the share or stock prices of the companies they managed, that is, the managers generally wanted their stock to rise so as to affirm the perceived health of the company they ran and their remunerations. Gosh (2010) and Mulford and Comiskey (2011) affirmed that a favourable effect on share prices was a major motive for managers to involve themselves in financial manipulations.

Determining share prices is a complex and conflicting task. According to economic theory, the price of any asset is usually determined by the market forces. However, a number of empirical studies have been conducted on the determinants of stock prices. Some of these studies looked at the relationships between stock prices and the factors that could impact on it. The link between fundamental factors (e.g. firm earnings, dividends and book-value per share) and stock price changes has always remained as the focus area of interest for market analyst, fund mangers, and investors. According to Fama (1970), a stock market is said to be efficient (pricing) if current securities’ prices reflect all available information. In an efficient market, stock prices would be analysed by Technical Analysis or Fundamental Analysis. Technical analysis evaluates the stock price movement and predicts the future stock prices based on historical data of stock price. Fundamental Analysis evaluates the intrinsic value of the company and compares it to the stock price.

According to Jones (2004), the comparison of these analyses will give insight to the investor whther the stock price is undervalued or overvalued and it will assist the investor in making the decision. Stock prices would be determined primarily by fundamental factors. Various researchers have found important fundamentall factors that determine the share prices for different markets, viz, dividend, retained earnings, size, earnings per share, dividend yield, leverage, payout ratio, and book value per share. A stock price in an efficient (price) market provides investors with a good measure of any firm’s performance and its value. Srinivasan (2013) noticed that, understanding the impact of various fundamental variables on stock prices is very much helpful to investors as it will help them in taking profitable investment decisions. In general, Shiller (1981) found that stock prices are not stable and fluctuate excessively in relation to the news about fundamentals (as dividends) primarily due to market irrationality.

Stock price indices differ according to the number and characteristics of the stocks included int eh index, a well the weights given to each stock. While a stock price index measures the level of stock prices, its practical application is to compare values at different points in time, that is, to mesure the rate of appreciation (excluding cash dividends) on common stocks. First, any index is designed to tell investors in the same segment of the market how well their stock portfolio should be performing. That is, an index isa benchmark against which a “representative investor” can compare performance. If an index is to enjoy widespread use, both the stocks selected and the weights employed should be close to those of some signfiant portion of investors, and the rate of return should correspond closely to the rate of return experienced by the representative investor. Some indices are so representative that they have become the basis for “index funds”, mutual funds that structure their portfolios to mimic the performance of a specific index (Fortune, 1998).

Second, an index is intended to measure the price changes arising fromforces affecting “the market”. However, stock prices are also affected by events unique to the firm, such as supply disruptions, introduction of competitive products, or labour unrest. These events give rise to firm-specific risks which ivnestors can avoid by proper diversification. A well- diversified index will reflect less idiosyncratic risk than does an index with few firms. Thus, other things equal, the larger the number of firms represented in the index, the better the inedex will represent its segment of the market. Third, a stock price index should normally be shielded from the effects of internal decisions that affect the firm’s share price without altering investors’ risk and return. Stock splits is, other things equal, desirable. On the other hand, a firm’s decision to merge or to acquire other firms will change the character of the firm’s business and call for active intervention by the index manager to determine if the firm should be dropped froman index and replaced by other firms (Fortune, 1998).

Fourth, as stock prices change, each stock’s share of a representative investor’s portfolio will chnge: The weights for stock with appreciation greater than average will fall. An index that automatically corrects for the repercussions of price changes upon the weights themselves, without requiring buying or selling of shares to restore weights, will, other things equal, be more useful. For example, an equally weighted index, like the Dow Jones Industrial Average, will beoem increasingly less useful as a benchmark, or increasingly more expensive to mimic, because an investor must sell his best-performing stocks and reinvest in the worst performers in order to maintain equal weights. A final consideration is the trading frequency of stock included in an index. A stock index that includes too many infrequently traded stocks will fail to accurately reflect the market, especially over short intervals when prices are changing rapidly. Even indexes that included actively traded stocks, such as Standard & Poor (S&P) 500, can reflect “stale” prics if markets are

closed by circuit breakers, if trading in individual stocks is halted, or if volume is so high that quotes are delayed (Fortune, 1998).

# Independent variable

The independent variable is a variable whose values are not dependent on other factors or which variation does not depend on that of another. Independent variable is a variable whose variation do not depend on another variable but the researchers experiment. That is, it is a variable that stands alone and is not changed by the other variables. It is a variable believed to affect the dependent variable (Cramer, Duncan, & Dennis, 2004). It is the variable that is stable and unaffected by the other variables you are trying to measure. It refers to the condition of an experiment tha tis systematically manipulated by the investigator. It is the presumed cause. In this study, CSR disclosure represented the independent variable.

# Corporate Social Responsibility (CSR) Disclosure

MNCs report on their CSR efforts for various reasons. The possible explanations for CSR include reputation management, brand protection, competitive pressure, meeting community expectations, responding to media coverage of negative incidents, managing stakeholder groups, attracting ethical investors or attempting to prevent potentially onerous government regulations (Jones & Jonas, 2011; Nikolaevà & Bicho, 2011). There has been a great deal of research on the link between CSR and the economic performance of MNCs. Although there had been contradictory findings, the majority of studies found a weak link between CSR and superior financial performance of firms (Samy, Odemilin & Bampton. 2010).The level of CSR reporting by MNCs has steadily increased in the last two decades from 12% in 1992, 24% in 1996 and to 28% in 1999 (Nikolaeva & Bicho,

2011). Fortanier and Kolk (2007) found that 161 out of 250 (64%) MNCs reported on their

CSR activities. By 2011, CSR reporting had increased to 80% of all MNCs (Jones & Jonas, 2011).

Social responsibility disclosure refers to the disclosure of information about companies interactions with society (Branco & Rodrigues, 2006). According to Hossain and Reaz (2007), due to information asymmetry, disclosure of private information is imperative as it brings general gains to economic efficiency. Joe and Kechi (2013) stated that corporate social reporting represented a credible way of subtly pressuring firms to act in a socially responsible manner. Also, Anwar (2005) opined that good CSR practices enabled companies to attract better quality investors and meet challenges posted by competition.

A number of researchers, governments, international organizations and even community of firms have addressed the issues of CSR since the 1950s. Despite numerous efforts to bring about a clear and an unbiased definition of CSR, there is still some confusion as to how CSR should be defined, and before then, there had been 37 definitions of CSR (Dahlsrud, 2008).

According to Tran (2014), the term “CSR” first officially appeared in the book “Social Responsibilities of the Businessmen” written by Bowen (1953). The concept, CSR, was referred to as the obligations of businessmen to pursue those policies, to make those policies or to follow those lines of actions that were desirable in terms of the objectives and value of our society. By contrast, Friedman (1970), saw CSR as its nature of conflict. The author added that engaging in CSR was a problem or conflict between the interests of managers and shareholders. In other words, managers tried to use CSR as a tool to further their own social, political or career agenda at the expense of shareholders.

Following the stakeholder theory, Hopkins (2003) stated that CSR was concerned with treating the internal and external stakeholders of the firm in a socially responsible manner.

In other words, the wider aim of CSR was to create higher and higher standards of living while preserving the profitability of the corporation for its stakeholders. By comparison, Zu (2009) briefly defined CSR as the means companies integrated social and environmental concerns in their business operations and their interaction with their stakeholders on a voluntary basis. Makower (1994) stated that corporate responsibility was the right thing to do and the key to companies’ competiveness and survival.

CSR is an obligation by a corporation to be liable for any actions that affect people, communities and the environment. CSR is a concept that involves a shared responsibility partnership between companies, governments, community resource agencies and local communities (Rustiarini 2010). The partnership is a shared responsibility among stakeholders and social enterprises. According to The World Business Council for Sustainable Development (WBCSD), corporate social responsibility is the commitment of a business to contribute to sustainable economic development through cooperation with employees and their representatives, their families, local communities and the general public to improve the quality of life by ways that benefit both themselves and for business development. Information is a fundamental requirement in decision-making. Information within the company can be financial or non-financial. One of the commonly requested pieces of information disclosed today is the one about corporate social responsibility. With this information, companies can disclose the activities of accountability to the stakeholders. The investor or prospective investor also uses both financial and non financial information for fundamental decision making. Companies are expected to disclose their practice of CSR, especially when they have good performance in environmental, social and economic activities (Abdur-Rouf, 2011).

CSR is concerned with treating the stakeholders of the firm ethically or in a responsible manner. ‘Ethically responsible’ means treating stakeholders in a manner deemed

acceptable in civilized societies. Stakeholders exist both within and outside a firm. The natural environment is a stakeholder. The wider aim of social responsibility is to create higher and higher standards of living while preserving the profitability of the corporation for people both within and outside the corporation. CSR can also be seen as the ethical behaviour of business towards its constituencies or stakeholders (Coffie, Aboagye- Otchere, & Musah, 2018).

CSR leads to a dialogue between a company and the environment in which it operates. Common language discussion helps society to know whether its dialogue with companies is heard and interpreted in a consistent way. To date, it is believed that dialogue has been highly flawed as some companies use the terms “corporate citizenship”, “the ethical corporation”, “good corporate governance” or “corporate responsibility”. The effect of the flaw is that some companies now consider CSR as pure corporate philanthropy. Others (such as Shell) see it as a new corporate strategic framework while others dismiss the notion entirely (Saleh, Zulkifli, & Muhamad, 2010).

According to Gray, Owen and Adams (1996), CSR is the process of communicating the social and environmental effects of an organization’s economic actions to particular interest groups within the society and the public at large. Consequently, business organizations use corporate social responsibility disclosure as a strategy to buy the minds of the stakeholders in its environment of operation. Over the years, it has become mandatory for corporate entities to disclose the corporate social responsibility they are engaged in in their financial reports. It is referred to as social accounting and social audit. The social responsibility reporting should desirably possess the following qualitative characteristics (Ibrahim, 2003): the report should contain a statement of its objectives which helps in assessing the basis of data collection and the reason for adopting that

particular form of presentation. The objective of such a report should be to discharge accountability society. Information provided should be directly related to the user’s need, not manipulated but be presented in a manner that is understandable to non-technical people (Gray, Owen & Adams, 1996).

The concept of social accounting has become more important as a result of industrial growth which has brought about prosperity as well as problems to society. For an organization to function effectively, it needs to be accountable to the public at large. Social accounting is the branch of accounting which measures, analyses and records society and the enterprise itself both in quantitative and qualitative terms. Some organizations also use photographs, charts and graphical presentations to illustrate the social activities such as community projects that have been undertaken by the firm during an accounting period (Bessong & Tapong, 2012).

# Measurements of Corporate Social Responsibility Disclosure

Corporate social responsibility can be measured by using different variables. In this study, the following measurements were used: gifts and donations (GD); employment of indigenous staff (EIS), and environmental activities (EA). There are two generally accepted methods of measuring CSR. The first one is the reputation index, where knowledgeable observers rate firms on the basis of one or more dimensions of social performance. This method has some advantages. First, it tends to be internally consistent because one evaluator applies the same (albeit usually subjective) criteria to each firm. Second, it makes no pretence of applying a rigorous objective measure to a dimension that may be innately subjective. Third, it may summarize the perceptions of a key constituency of various firms. This alone may be an important factor in determining the relationship between CSR and financial performance (Abbot & Monsen, 1979).

There are, however, disadvantages as well. The most important (and most obvious) is that such rankings are highly subjective and thus may vary significantly from one observer to another. This raises the spectre of unreliability. A second problem is one of sample size. Most reputation indices generated to date cover only a relatively small number of firms. Thus, one must be cautious about generalizing from the results of these studies. The first reputation index, a fairly narrow one, was generated by the Council of Economic Priorities (CEP) in the late 1960s and early 1970s. In this study, the CEP ranked the pollution control performance of 24 firms in the pulp and paper industry (Council of Economic Priorities, 1971). This measure of CSR has been used by a number of studies, including those by Bragdon and Marlin (1972), Folger and Nutt (1975) and Spicer (1978).

A second reputation index was generated by Milton Moskowitz who, over a period of years, rated a number of firms as “outstanding,” “honorable mention,” or “worst” (Moskowitz, 1972, 1975). The 1972 version of this index was used by Moskowitz and a composite of his 1972-1975 indices was used by Sturdivant and Ginter (1977) in their studies on the relationship between CSR and financial performance. Another popular reputation index also can be traced back to Moskowitz. A survey was conducted by the National Association of Concerned Business Students (“How business school students rate corporations,” 1972) where 300 graduate students of business administration were questioned about their views on the social responsibility of some of the Fortune 500 firms. Indices generated from the study were used subsequently by Vance (1975), Heinze (1976) and Alexander and Buchholz (1978).

The second method of measuring CSR is content analysis. Normally, in content analysis, the extent of the reporting of CSR activities in various firms’ publications and especially in the annual report is measured. This may consist of simply noting whether or not a

particular item (such as pollution control) is discussed either qualitatively or numerically, or it can mean actually counting a number of items. A commonly used source for content analysis is a series of studies conducted by Beresford (1973, 1975, 1976). Content analysis has two significant advantages. First, once the particular variables have been chosen (a subjective process), the procedure is reasonably objective. Therefore, the results are independent of the particular research. Second, because this technique is more mechanical, larger sample sizes are possible.

Content analysis is a research procedure meant for making replicable as well as valid inferences from data to their context (Krippendorff, 1980). Utilizing the content analysis procedure, the number of information disclosed can be calculated for each category or for each company through counting the data items, to be precise, the amount of words, the amount of sentences as well as the amount of pages (Hackston & Mime, 1996; Marston & Shrives, 1991). Accounting researchers have utilized content analysis as a research technique in various ways. The literature portrays two wide approaches to content analysis: mechanistic and interpretative. Mechanistic approaches capture as well as portray a surrogate assumed to express meaning and reporting intent (Campbell, 2000). In general, these studies are form oriented, which implies that the focus is on volumetric or frequency capture and semiotic assumptions which have a tendency to be applied. Smith and Taffler (2000) distinguished this by means of meaning orientation suggesting that form orientated content analysis entailed routine counting of words or concrete references at the same time as meaning orientated analysis focuses on the fundamental themes in the texts under examination. As regards this, meaning orientation has a greater interpretative element than in the mechanistic postulation of form orientation. In general, content analysis may take several forms, ranging from data capture by word counts (Campbell, 2003), sentence counts (Patten & Crampton, 2004; Perrini, 2005), (summed) page proportions (Unerman,

2000), frequency of disclosure (Ness-India & Mirza, 1991), to high/low disclosure ratings (Patten, 1991).

However, content analysis also has some drawbacks. The choice of variables to measure is subjective. Furthermore, content analysis is only an indication of what firms say they do, and this may be very different from what they actually do. At best, one certainly can postulate that firms that are aware of these issues are those that will discuss as well as act on them. On the other hand, one can imagine that firms which perform poorly on this front will feel an extra incentive to make themselves look good by touting their achievements in their annual reports (Allen, 2017).

In this study however, CSR report are the CSR items treated as disclosures which were ascertained from the annual reports and accounts of the companies sampled in the study, both in the financial statements and footnotes. They include:

# CSR Disclosure on Gifts and Donations (CSRDGD)

Intra and inter community struggles over CSR benefits have hampered production activities and hurt companies’ reputation (Idemudia, 2014). However, project decisions are made and managed by the NGOs. The local communities are also expected to contribute funds, human and natural resources or capital assets like land for the achievement of development plans and objectives (Loza, 2004,). Potential benefits which businesses stand to enjoy include increased access to critical resources and relevant local information, enhanced reputation and organizational learning (Morris & Bartkus, 2015). Community participation is central to this model, hence, there is the likelihood that it will reflect core community needs, promote community empowerment and project sustainability and a close cooperation between the communities and the company thereby reducing intra and inter-community conflicts (Getz & Oetzel, 2010).

Gifts and donations in corporate social responsibility is linked with corporate philanthropy. Meanwhile, in developing countries like Indonesia, CSR is most commonly associated with philanthropy or charity, i.e. through corporate social investment in eduation, health, sports development, the environment, and other community services (Visser, 2008). Whether it is considered as CSR or not, charity, donation, compensation, disaster relief is the most common popular especially for Indonesian companies. Despite the fact that phyilanthropic action is very popular especially for Indonesian small and medium enterprises, this approach believed as the obsolete one. This philanthropic action known in another term as corporate social stewardship and had been used formally in 1950s-1960s (Lawrence & Webber, 2014). Genest (2005) noted, “Corporate philanthrophy can be defined as a group of people authorized to act as an individual, especially in business, who share a concern for the good furtune, happiness, health and prosperity of mankind and demonstrate this concern through acts that are good, friendly, and helpful”.

Furthermore, Schnurbein, Seele, and Lock (2016) noted that corporate philanthropy generally takes on three different forms: corporate giving, corporate volunteering and corporate foundations. In addition, we use the framework of Anheler and Leat (2006) to further differentiate corporate philanthropy in a charity/service, scientific philanthropy and new scientific philanthropy approach. Corporate giving entails all kinds of contributions – money and in kind – that are donated by the corporation. Noble, Cantrell, Kyriazis, and Algie (2008) list four different motivational categories why enterprises give to charity: strategic profit maximization, altruistic motivation, political motivation and managerial utility motivation. In practice, decisions on giving are driven by a combination of the four categories and were found to be triggered by specific community claims.

# CSR Disclosure on Employment of Indigenous Staff (CSRDEIS)

Internal CSR practices refer to employee-oriented CSR activities which are directly related to the physical and psychological working environment of employees, their health and well-being, training and participation in the organization, equal opportunities and work- life balance (Turker, 2009). Internal corporate social responsibility is mainly concerned with the welfare of employees beyond the strategic and legal bounds of organizations. It has its own importance. The internal operations of organizations to their employees are associated with internal corporate social responsibility. The study of Turker (2009) saw the internal corporate social responsibility as a psychological endowment for working environments. Laurinavičius and Romeris (2013) claimed that corporate social responsibility (CSR) was the commitment of an organization to meet the needs and interests of their stakeholders, shareholders, suppliers, employees, customers, community and others.

For instance, there has been a resurgence of interest in indigenous employment in the Australian minerals industry, as indicated by the signing of the Memorandum of Understanding (MOU) between the peak industry body, the Minerals Council of Australia and the Australian Federal Government in June 2005. The MOU commits both parties to deliver improved employment outcomes for indigenous communities in specific mining regions over five years (Australian Government & MCA, 2006). Several mining companies and government agencies have adopted indigenous employment policies and programmes (Archer, 2005; DEWR, 2005a, DITR, 2005; Fowler, 2005; Hall & Driver, 2002; IMETF, 2003; Lenegan, 2005). Employment and training provisions have also become a common feature of Indigenous Land Use Ageements (ILUAs) between Tradition Owner groups, mining companies and State governments (O’Faircheallaigh, 2002; Quinn, 2005).

Underpinning these intiatives is the assumption that greater indigenous representation in the mining workforce will promote a greater sharing of benefits between mining companies and indigenous communinties (DEWR, 2005a; Render, 2005). With mineal and engery exports set to rise by 26 per cent to $93.1 billion in 2005-06 (ABARE, 2006), there are increased expectations and assurances that this will create more indigenous employement opportunities. For example, recent proposals of several mine related projects were accompanied by announcements that these developments will create better employment prospects for Aboriginal people (ABC, 2006; Brechley, 2006; Office of Territory Development, 2004; Tanami, 2005).

Furthermore, the treatment of employment conditions of Aboriginal workers within the resource industries were often substandard to the point of being comparable to those experienced by servants or indentured labourers (Elder, 2003; Kidd, 2003). According to Broome (1982) as recently as 1969 Aboriginal workers at the Weipa mining operation were not eligible for all the employment benefits provided to their non-aboriginal counterparts, such as bonuses, holiday pay and lodgings. Gientzotis and Welch (1997) further characterized the treatment of Aboriginal workers as a surplus and expensable reserve labour force in the Australian mining industry. It has also been alleged that the rapid expansion of large scale mining operations in the Pilbara region since the mining boom in the 1960s, displaced or excluded Aboriginal workers who were previously employed in smaller-scale mines (Holcombe, 2004; Rogers, 1973).

# CSR Disclosure on Environmental Activities (CSRDEA)

Compliance with environmental policy in relation to the environment is also another important dimension of CSR. CSR reporting evolved from information on the corporate environmental and social policies included in annual reports to stand-alone combined

reports that include social, environmental and economic/financial (Buhr, 2002; Cho, Michelon & Patten, 2012; Milne & Gray, 2007). Recent trends in environmental disclosure and reporting practices suggest a largely increasing number of social, environmental and economic/financial information stand-alone reports (Cho, 2011). The issuance of such sustainability reports has now become almost a standard among the world’s largest corporations. These are obviously deduced from the reputation index, whch is the first of the two generally accepted methods of measuring CSR (Cochran & Wood, 1984).

Environmental corporate social responsibility (ECSR) is a concept where companies integrate environmental concerns in their business operations and the interaction with stakeholders, without compromising economic performance. After witnessing an increase in environmental catastrophes that was contributed by the unscrupulous business interest and human careless attitude (Banyte, Brazioniene, & Gadeikiene, 2010), business organizations is turning to CSR as its payback tool. Companies would actively seek to integrate environmental consideration into their operation and activities. These includes promoting the advantages of eco-friendly products (Jansson, 2010; Pickett-Baker, 2008; Ramayah, Lee, & Mohamad, 2010), encouraging eco-tourism; (Chiutsi, Mukoroverwa, Karigambe, & Mudzengi, 2011; Stronza & Gordillo, 2008; Weaver & Lawton, 2007), developing environment friendly behaviour through workplace climate (Nik Ramli, 2007; Nik Ramli & Naja, 2011) and many more.

An organization that truly embraced enviormental protection and sustainability has to have a holistic and consistent strategic management approach (Velasquez-Manoff, 2009). Its organizational members are expected to hold shared assumptions and beliefs about the importance of balancing economic efficiency, social equity and environmental

accountability (Bertels, Papania & Papania, 2010). The motivation to be consistent when implementing an environmental sustainable approach in every aspect of the CSR initiatives is an outcome of the holistic organizational worldview.

Implementation of socially responsible activities results in reduction of negative impacts on the environment rhough more efficient use of recourses, reduced water consumption, lower waste disposal costs, savings from lower material and energy consumption of the enterprises’ activities (Klimek, 2014). Generally it can be said that between the company implementing socially responsible actions and the “the silent stakeholder” a kind of feedback exists. The influence of the stakeholder changes the company, and the influence of the company changes the stakeholder.

To obey CSR rules in case of environmental aspects corporations can measure their environmental impact and implement the environmental management. Environmental impacts can be measured in several ways through eniornmentally extended input-output tables, material input per serve unit (MIPS) calculations, ecological footprint and life cycle assessment, etc. To truly commit to its environmental responsibilities a company should change its traiditional modes operation towards a more environmentally oriented one. The environmentally more responsible perpective could include such issues as an emphasis on increased resource productivity, cleaner production and active dialogue with the company’s stakeholders (Uddin, Hassan & Tarique, 2008). In Poland enterprises choose mostly the standard ISO 14001 defining the environmental management system to support application of the principles of CSR. Its main objective is to improve the relationsip between the business effects of human activities and the natural environment (Misztal & Jasiulewicz-Kaczmarek, 2014).

# Determinants of Corporate Social Responsibility Disclosure

According to Kamal and Yousef (2013), corporate social responsibility disclosure is determined by different factors. These factors are:

# Profitability

Profitability as defined by Pimentel and Patzek (2005) is the final measure of economic success by a company in relation to the capital invested in it. Company’s profitability gives an indication about the effectiveness of corporate management. Profitability is defined based on net profit before tax. Profitability is achieved on management’s rate of return, earnings margin, return on assets or return on capital. These rate/ratio set by management tends to help in observing when the operations will be profitable enough to accommodate the costs associated with CSR activities. Giner (1997) argued that managers of profitable companies were more likely to provide more voluntary CSR disclosure in the annual reports to support the continuation of their current positions and boost the levels of current and future compensation.

It is very likely to see profitable companies providing detailed information of CSR in order to attract users to their accounts and highlight management effectiveness. Profitable companies have positive messages to signal to the users of the accounts. It is therefore, understandable for profitable companies to disclose more information than non-profitable companies. However, it is possible to see some companies sustaining losses and still disclosing detailed information in order to explain what went wrong and how they intend to correct it (Roberts, 1992).

# Level of Leverage

It is expected that highly leveraged firms are more likely to voluntarily disclose more information. Although Brammer and Pavelin (2008) and Purushothaman, Hancock,

Tower, and Taplin (2000) found a negative association between CSR disclosure and gearing ratio, Purushothaman et al (2000) posited that highly leveraged companies could have closer relations with their creditors and hence, disclose more CSR information in their annual report narratives. A highly leveraged company will be asked by lenders to disclose more detailed information than a company with a low leverage ratio. Lenders ask for detailed information before granting loans. In addition, banks and other lending organizations are more likely to lend to successful and reputable companies. Hence, highly leveraged companies are likely to disclose more information than others in order to meet the banks and other lending organizations’ expectations (Commors & Gao, 2009).

# Industry Type

Companies operating in different industries embark on different activities. Hence, manufacturing companies get involved in more activities than services companies. They purchase various types of materials that need to be handled and stored before being used in production. They also have work in progress and finished goods to handle and store before being dispatched to the final users. Manufacturing companies are also capital intensive as they require large capital investments that force them to look for external sources of funding. Manufacturing companies are generally large in size, and they embark on various operations. According to the legitimacy theory, manufacturing companies are expected to disclose more social information concerning environmental health and safety issues than companies that belong to other sectors in order to avoid public pressure and additional regulations (Purushothaman, et al., 2000).

# Status of the Audit Firm

The relationship between the extent of corporate reporting and the status of the audit firm have been investigated in many studies, such s those by Signhvi and Desai (1971);

McNally McNally (1982); Malone, Gilbert, Tafarodi, and Malone (1993); Wallace (1994); Raffournier (1995); Wallace and Naser (1995); Inchausti (1997); Owusu-Ansah (1998); Naser, Jamal, and Naser (2002); Camfferman and Cooke (2002); Glaum and Street (2003); Au (2004); Al-Shammari (2008); Barako (2007) and Aly (2010). Big international firms possess intensive knowledge of the IFRSs and they audit large international companies. They, therefore, charge higher audit fees than other firms. Hence, it is very likely for large and profitable companies to hire big international audit firms since they can pay their fees. Intensive knowledge of IFRSs and experience with multinational companies of the big audit firms’ staff would have a positive effect on the extent of reporting by companies audited by these firms.

# Location of the Listed Company’s Head Office

Previous studies pointed to a possible association between accounting system development and economic level development (Cooke & Wallace, 1990; Doupnik & Salter, 1995; Salter, 1998; Williams, 1999). In other words, highly developed countries are more likely to have a highly developed accounting system than the less developed countries. Companies listed on the Abu Dhabi Securities Exchange are located in seven Emirates. The level of economic development varies among the Emirates. It is argued that companies located in urban areas would be usually more visible (Loughran & Schultz, 2005) than companies located in rural areas since these areas tend to have many institutional investors, brokers, bankers, financial analysts, and lobby groups.

# Ownership Structure

Government companies tend to disclose more CSR information than privately owned companies although management of some privately owned companies may opt to disclose social responsibility information in order to attract investments and signal that they

operate in line with society’s expectations. Government ownership can affect agency conflict between agents (managers) and principals (shareholders). According to Eng and Mak (2003), due to the conflict between corporate financial objectives and society’s expectations, companies’ communication with shareholders becomes greater with government ownership.

# Corporate Size

According to Cormier and Gordon (2001), large companies are expected to have financial and human resources to compile, analyse and disclose information more than small companies. Since they have the resources, they are expected to hire big international audit firms that are likely to force a better disclosure. Large companies are also subjected to the scrutiny of the public. To assure the public, they tend to disclose more information than small companies. Needless to say, large companies are more likely to be involved in activities that require disclosure more than small companies. Furthermore, large companies are closely monitored by the stock markets more than small companies (Hazrati, Eskandari, Majlesi & Gholami, 2015).

Using total asset or total revenues to measure corporate size, prior research that examined the association between the CSR disclosure and firm size found a significant positive association (Adam, Anderson, Motto, Price, Johnson, & Welsh, 1998; Oeegan & Gordon, 1996, Gutherie & parker 1989; Hackson & Milns, 1996, 1998, Patten, 1992). This tells us that large companies are more likely to disclose more CSR information than smaller ones because large companies receive more attention from the public since they are more likely to be diversified across geographical and product market and hence, might have larger and more diverse stakeholder groups (Brammer & Pavelin, 2008). Large firms are more likely to report CSR information in their annual reports because the firms are more likely to

cover the costs associated with reporting this information. Also, large companies tend to disclose more voluntary information to reduce agency costs resulting from potential conflicts between management and the stakeholders (Othman, Thani & Ghani, 2009) and also political costs as they are usually more publicly visible than small companies (Archel, 2003; Cormier & Magnan, 2003).

Another determinant not mentioned above is **liquidity**. According to Shim and Siegel (2000), liquidity is the company’s capacity to liquidate maturing short-term debt (within one year) and also the availability of ready money or the ease with which an asset can be converted to cash in order to meet the deposit withdrawal needs of the depositors on demand (Rotimi, 2007). High liquid companies are more likely to report more voluntary information to distinguish their companies from low liquid firms. On the other hand, one might argue that corporate managers of companies with a low liquidity ratio may publish more voluntary information in their annual reports to satisfy the information requirement of stakeholders (Khaled, Mohammed & Marwa, 2011).

# Role of CSR Disclosure in Community Development

Community is generally defined as a group of people who are interdependent on the fulfilment of certain needs, live in close proximity and interact on a regular basis. There are shared expectations for all members of the group and responsibility taken from those expectations. The group is respectful and considerate of the individuality of other persons in the community. In an environment, there is a sense of community which is defined as the feelings of cooperation, commitment to the group welfare, willingness to communicate openly, and responsibility to and for others as well as to one’s self. Most importantly, there exists community leaders who are responsible for the success of any community event, depending on the needs of the community and the individual’s own feelings. The

community leaders are individuals who strive to influence others to take responsibility for their actions, achievements, and the community’s welfare (Bitchta, 2003).

According to Ismail (2009), community development (CD) refers to initiatives undertaken by a community in partnership with external organizations or corporations to empower individuals and groups of people by providing them with the skills they need to effect a change in their own communities. These skills are often centred on making use of local resources and building political power through the formation of large social groups working for a common agenda. Community developers must understand how to both work with individuals and affect communities’ positions within the context of larger social institutions.

CD is the process of developing active and sustainable communities based on social justice and mutual respect. It is about influencing power structures to remove the barriers that prevent people from this process. They enable linkages to be made between communities and the development of wider policies and programmes. CD expresses values of fairness, equality, accountability, opportunity, choice, participation, mutuality, reciprocity and continuous learning. Educating, enabling and empowering are at the core of CD (Federation of Community Development Learning, FCDL, 2009).

CD is the combined processes, programmes, strategies and activities that make a community sustainable as compared to economic development which is the marketing of its potential for growth followed by local efforts to act on opportunities. The entire set of approaches to community development practice may be considered a specialized form of addressing, coordinating and building the social infrastructure in a location. CD may be defined as a process of challenging the undesirable and unacceptable disparity of conditions and infrastructure that negatively affects the quality of life in a place where

people live and work. It functions best as a process in locations where all strata of society and citizenry are engaged with a sense of community solidarity (Community Glossary, 2009).

The widely used meaning of CD is the one given by the United Nations (United Nations, 1971). It defines CD as the organized effort of individuals in a community conducted in such a way to help solve community problems with minimum help from external organizations. External organizations include non-government organizations and corporations of various types and sizes such as small and medium enterprises (SMEs) and multinational corporations (MNCs). The implication of UN’s definition of CD is, therefore, emphasizing creativity and self-reliance in the community for short and long term goals, but not to defy the CSR roles of the various types of business firms. In relation to the people, the definition of CD is essentially both an educational and organizational process. Another term closely related to CD is community work which is about the active involvement of people in the issues that affect their lives. It focuses on the relationship among individuals, groups and the institutions which shape their everyday experience.

According to Federation of Community Development Learning (FCDL) (2009), it is a developmental process that is both a collective and individual experience. It is based on a commitment to equal partnership between all those involved to enable a sharing of skills, awareness, knowledge and experience in order to bring about a change. It takes place in both neighbourhoods and communities of interest whenever people come together to identify what is relevant to them and act on issues of common concern. The key purpose is to work with communities experiencing a disadvantage, enable them to collectively identify needs and rights, clarify objectives and take action to meet these within a democratic framework which respects the needs and rights of others. Community work

recognizes the need to celebrate diversity and appreciate differences among ethnic and social groups in the community.

From the above meanings of CSR and CD, it is undeniable that CSR has implications on community and CD in many ways. Based on Perrin’s (2009) report, CSR is the third most important driver of employee engagement over all others.

The roles of CSR in CD are any direct and indirect benefits received by the community as a result of the social commitment of corporations to the overall community and social system. These common roles of CSR in CD are discussed as follow:

To share the negative consequences as a result of industrialization. This is related to increasing conscience-focused market places necessitating more ethical business processes, for instance, a higher UK road tax for higher emission vehicles thus reducing the burden of small vehicle owners in a community. By doing so, small vehicle owners share less tax burden hence, they can re-channel the money for more productive uses in the community.

Closer ties between corporations and the community. Through CSR, the existence of corporations in the social system is felt beyond the perception that a corporation is a place to get employment, and produce goods and services. By doing so, corporations and community would stay in peace and harmony. This becomes a social capital that is essential in community development (Community Glossary, 2009).

Helping to get talents: Organizations with a reputation for CSR can take advantage of their status and strengthen their appeal as an attractive employer by making their commitment a part of their value proposition for potential candidates. It is also true that when employees view their organizations’ commitment to socially responsible behaviour more favourably,

they also tend to have more positive attitudes in other areas that correlate with a better performance. They believe their organizations recognize and reward great customer service, act quickly to address and resolve customer concerns, and are led by people in senior management who act in the best interest of customers (Federation of Community Development Learning, FCDL, 2009).

Confidence in senior management is higher in other areas, too, when employees give their company high marks for being socially responsible. For example, if a large number of employees perceive that their organizations’ senior managements support new ideas and new ways of doing things, this would result in a better perception of employees to the organization, hence, their trust and loyalty to the organization. A company’s success in the marketplace is often influenced by its capacity for innovation, and the perception of the employees of the organization. It is also a factor in attracting and retaining talents. In relation to CD, good employees’ perceptions of a corporation can lead to the community treating the corporation as an important economic asset (Federation of Community Development Learning, FCDL, 2009).

Role in transfer of technology (TOT): Closer ties help in TOT between Multi—National Corporations (MNCs) that give concerns on CSR and communities in the host countries. MNC is a corporation that has its facilities and other assets in at least one country other than its home country. Such companies have offices and/or factories in different countries and usually have a centralized head office where they coordinate global management. Very large multinationals have budgets that exceed those of many small countries. Barton (2007) focused on three mechanisms of international technology transfer: the flow of human resources; the flow of public-sector technology support; and the flow of private technology from MNCs to developing countries. He argued for greater mobility within and the globalization of the world’s scientific enterprise, and reasserted an economic rationale

for investing in public sector research in developing countries. Through TOT coupled with CSR processes, the targeted community would gain in the various aspects of product development and marketing such as better price and quality as well as concern for people’s wellbeing (CSR @Intel, 2009).

CSR helps to protect environment: Some of the world’s largest companies have made a highly visible commitment to CSR, for example, with initiatives aimed at reducing their environmental footprint. These companies take the view that financial and environmental performance can work together to drive company growth and social reputation. This attitude can only serve to enhance the employment value proposition such as an interest in “going green” gains attraction (Towers, 2009). “We green the earth” slogan made by some MNCs in Malaysia who owned large golf areas within the vicinity of residential areas was another CSR initiative which seemed to protect the environment. Many non-profit organizations have been involved in learning the advocacy of environmental protection of CSR such as those reported by the United Nations. They are, for example, (1) “Friends of the Earth” who highlight the environmental impact of some MNCs and campaign for stronger laws on environmental responsibility; (2) “Green Peace mission” is another example of CSR initiative that gives benefit to societies and communities in preserving the latter’s rights to reaping a healthy environment.

# Corporate social responsibility disclosure and corporate financial performance

Presently, CSR remains at a premature developmental stage. It seems inevitable that CSR will be a part of financial reporting standards (Lemus, 2016). For example, in accounting, the areas that are related to CSR are financial accounting, managerial accounting, and income tax reporting. In the 21st century, CSR is an emerging field in the accounting and finance industry. The three most important financial reporting standards under CSR are

Global Reporting Initiative (GRI) G3 standards, AA 1000 series, and the UN Global Compacts Communication on Progress (COP, Tschopp & Huefner, 2015).

Empirical research on the link between CSR and financial performance has given a lot of varied and heterogeneous results. In particular, there is a great variety in the sign of the relation studied. The first study to find a negative relationship between CSR and financial performance was Vance (1975). The study looked at share price and found that in building a portfolio, an investor would be better off investing in companies which reported little or no CSR. His concluding comment, was that companies had more reasons to be socially responsible on the basis of how it affected the per share value of their common stock.

An opposing view to CSR influencing profitability is that it is a firm’s financial performance that influences CSR and not the other way round. This is contrary to what the majority of researchers think. The idea is that firms that have available ‘spare cash’ are more likely to invest in society and the environment (McGuire, Sundgreen & Scheemweis, 1988). The explanation provided for the adverse relationship observed between CSR and financial performance is that firms accept a responsibility to a range of different stakeholders. Firms take on the extra costs to benefit society as a whole but at the expense of their shareholders’ personal wealth (McGuirc et al. 1988).

Shane and Spicer (1983) also found a negative relationship between the level of social disclosures and economic returns. This is a direct contrast to Spicer’s 1978 paper which found a significant positive relationship. This highlights the inconsistency of the results obtained by different studies. The explanation that Shane and Spicer (1983) provided for the negative results was that investors were put off by CSR. This is consistent with the research by Riahi-Belkaoui (2006) who found a negative relationship between external perceptions of a company’s CSR activities and executive compensation schemes, thus

providing a new angle to the relationship. Riaha-Belkaoui’s findings suggested that top management could be discouraged from undertaking CSR activities due to the fact that the shareholders did not appreciate their profits being spent on activities they did not consider beneficial to them.

Waddock and Graves (1997) assumed that companies with responsible behaviour could have a competitive disadvantage since they had unnecessary costs which fell directly on the bottom line and would necessarily reduce shareholders’ profits and wealth (Preston and O’Bannon, 1997). Both short-term analyses which were based on measuring abnormal returns (Wright & Ferris, 1997), market measures (Vance, 1975) and long-term studies (Vance, 1975) had a negative relationship between performance and CSR. Ullman (1985) explained that no clear tendency could be recorded among connections on social information, social performance and economic results. The main reasons for this were the theory’s inadequacy, inappropriate keyword definitions, and lack of empirical material. The author observed that important aspects were not just social performance and economic results but also “information” about social performance, and that only a few studies had analysed the three-dimensional relations.

Other studies highlighted the impossibility of defining the sign of the existing relationship between CSR and performance in the short term on the basis of abnormal return measure (Welch & Wazzan 1999) and market actions in the long term (Aupperle, Carroll, & Hatfield, 1985).

Waddock and Graves (1997), using the theory of scarce resources, identified the adoption of responsible social behaviour as a consequence and not a cause of performance improvement. The idea is that during a positive trend, there will probably be fewer limited resources. Some of these resources could be liberated in a secondary activity such as CSR.

Preston and O’Bannon (1997) made use of a similar hypothesis called “available funds”, because a firm’s behaviour depends on accessible resources. The authors presented an alternative theory to “good management” called “the hypothesis of social impact”, that is, a better financial performance follows a stronger company’s reputation. By considering stakeholders’ implicit needs, a company increases its reputation and this improves its financial performance.

Luce, Barber and Hiliman (2001) studied the relation between CSR enterprise’s appeal to employees and a firm’s public profile. They claimed that a firm’s reputation had a positive influence on the relationship between CSR and appeal. Short term studies based on abnormal return measure (Posnikoff, 1997) and market actions (Moskowitz, 1972) showed a positive relationship between performance and CSR. Markowitz (1972) noticed that the average of common stock returns of 14 selected ethical enterprises for the first half of 1972 was 7.28%, an amount that was higher than the Dow Jones’s industrial index.

In the long run, Cochran and Wood (1984) showed a positive relationship between social responsibility and financial-economic valuation (after controlling for the age of the company). Spicer (1978) found a positive correlation between a firm’s economic performance and its level of pollution control in the paper and pulp industry. The study found that the higher the level of pollution control, the greater the profitability and size of the firm, and the lower the systematic and total risks. Spicer also concluded that the benefits seen were short lived.

Anderson and Frankle (1980) took a different approach by using a firm’s market value to measure financial performance and its relationship with corporate social responsibility. A positive relationship between market value and corporate social responsibility was found. It meant that investors had invested more in firms which reported CSR than those which

did not. It provided some evidence of the existence of the ‘ethical investors.’ Griffin and Mahon (1997) looked at the chemical industry and found that a high CSR was linked to a high financial performance and that low amounts of CSR reporting were linked to a lower financial performance for the firm. Griffin and Mahon’s empirical study was one of only a handful of studies that was industry-specific. Industry is a moderating variable. However, the internal validity of the empirical research was low as Griffin and Mahon only studied six firms.

Joyner and Payne (2002) also found a positive correlation between reporting CSR with performance and firm value. Joyner and Payne noted the difficulty of measuring the benefits of CSR. There were also limitations as only a small sample of two firms was studied in detail. So, their results could not be generalized adequately. The authors also saw some indications of a time lag between when CSR was reported and the financial benefits seen. The findings conflicted with the results by Spicer (1978) who found that the financial benefits were short lived.

Parket and Eilbirt (2006) undertook some research that looked at a couple of directly related issues. The first was that managers performed a cost-benefit analysis of reporting CSR. The empirical research showed no evidence to suggest that managers performed a cost- benefit analysis on corporate social responsibility. One company may be more inclined to report CSR while another which has spare money to invest in CSR is more likely to do so (Parket & Eilbirt 1975). This adds to the strength of the argument for companies being motivated by increased financial performance when reporting corporate social responsibility as the company could invest the excess money in other revenue earning investments such as bonds, share portfolios or even leave it in the bank instead of investing in CSR. Parket and Eilbirt were able to find a positive relationship between

profitability and corporate social responsibility thereby providing more evidence of the relationship between the two variables.

According to Margolis and Walsh (2002), empirical studies of the relationship between CSR and financial performance comprise essentially two types. The first uses the event study methodology to assess the short-run financial impact (abnormal returns) when firms engage in either socially responsible or irresponsible acts. The results of the studies were mixed. Wright and Ferris (1997) discovered a negative relationship, Posnikoff (1997) reported a positive relationship, while Welch and Wazzan (1999) found no relationship between CSR and financial performance. Other studies discussed in McWilliams and Siegel (1997) were similarly inconsistent on the relationship between CSR and short run financial returns. Cochran and Wood (1984) located a positive correlation between social responsibility and accounting performance after controlling for the age of assets.

Aupperle, Carroll and Hatfield (1985) detected no significant relationship between CSR and a firm’s risk adjusted return on assets. In contrast, Waddock and Graves (1997) found significant positive relationships between an index of CSR and performance measures such as ROA in the following year. Studies using measures of return based on the stock market also indicated diverse results. Vance (1975) rectified a previous research by Moskowitz by extending the time period for analysis from 6 months to 3 years, thereby producing results which contradicted Moskowitz and which indicated a negative relationship between CSR and corporate performance. However, Alexander and Buchholz (1978) improved on Vance’s analysis by evaluating the stock market performance of an identical group of stocks on a risk adjusted basis. They got an inconclusive result.

Previous studies underlined the differential effects of CSR dimensions on firm performance (e.g., Brammer & Pavelin, 2006). Therefore, it is likely that the impact of

corporate social responsibility on firm performance is contingent upon which dimension of social responsiveness is taken into consideration. For instance, several studies found a positive relationship between environmental practices or performance and financial performance (e.g., Konar & Cohen, 2001; King & Lennox, 2001), but other results appeared to be negative or non-significant (Barla, 2007; Filbeck and Gorman, 2004). The same types of results may be found for social and business behaviours performance measures. Applying social screens may appear to affect performance positively (Statman, 2006), negatively or insignificantly (Geczy, Stambaugh, & Levin 2005).

From the customers and suppliers’ dimension, many scholars noted their importance for firms and an increasing number of recent studies examined whether investment in customers and suppliers’ policies mades business sense. The results appeared mixed as well (Zhu & Nakata, 2007; Hult, Griffith, Ketchen, & Chabowski, 2007; Reitzing & Wagner, 2010). An investment in better relations with suppliers may improve a firm’s knowledge about what can be transformed in improved performance outcomes (Hult, Griffith, Ketchen, & Chabowski, 2007). On the other side, an investment in better relations with suppliers may create for firms opportunity costs of not learning which could be reflected in its performance (Reitzing & Wagner, 2010).

Concerning the impact of regulatory constraints on firm performance, the literature also presented mitigating results. Theoretically, the threat of fines and other regulatory costs may induce a higher corporate social responsibility, but corporate social responsibility may also be a response to government (regulatory) failure. CSR and stricter regulations may thus be complements or substitutes (Lyon & Maxwell, 2008; Maxwell & Decker, 2006). Empirically, many studies have tested the so-called “Porter hypothesis” whereby stricter environmental constraints would contribute to make firms more profitable by spurring innovation and competitiveness. However, when examining the relationship

between environmental regulation and firm performance, some studies suggested a positive relationship, other studies implied a negative relationship while still others showed no relationship at all (Sanchez, 1997).

Recent research has tended to provide more consistent results and show preliminary evidence of a positive impact of corporate social responsibility on firm performance and also a bi-directional causality, namely, from financial to social and environmental performance (Scholtens, 2008; Margolis, Walsh, & Efenbien, 2007). These new results seem to confirm the theory and estimations proposed by Surroca, Tribo and Waddock (2010) which drew upon instrumental stakeholder theory and the resources-based view of the firm to account for the recursive causal link between corporate social responsibility (CSR) and firm performance via the mediating role of firms’ intangibles. The proposed theoretical argument states that by developing close relationships with primary stakeholders, a firm can develop certain intangible resources (technology, human resources, reputation and culture) which enable the most efficient and competitive use of the firm’s assets and help it to acquire a competitive advantage over its rivals.

Mackey, Mackey and Barney (2007) developed a theoretical model in which the supply of and demand for socially responsible investment opportunities were analysed to determine which activities would improve, reduce, or have no impact on a firm’s market value. The model showed that firms might fund socially responsible activities that did not maximise the present value of their firms’ future cash flows yet it could still maximise the market value of the firm. A positive correlation between firm choices about investing in corporate social responsibility activities and firm value was shown, suggesting that corporate social responsibility could improve an organization’s performance. The proposition was supported by Deckop, Merriman and Gupta (2006) whose empirical research also indicated that CSR was positively related to corporate financial performance.

In their 1999 article, Harrison and Freeman (1977) examined the relationship between stake- holder management and the perception that a firm was socially responsible, and the performance implications of both stakeholder management and social responsibility. A key factor in the review was the concept of a theoretical problem in determining whether a corporate social responsibility (CSR) programme improved corporate performance because ‘economic effects’ are also social, and ‘social effects’ were also economic. The article made it clear that the true effect of CSR effects could not often be determined because the benefits were long-term and subtle. A company that invests in a CSR initiative today might not receive a benefit from the programme directly, but rather through more subtle consumer loyalty derived from the idea that they are buying from a company that is socially conscious.

A survey of Americans commissioned by the National Consumers League and Fleishman Hillard International Communications, released on May 31, 2006, clearly showed that two-third of Americans would patronize or buy the products of companies they adjudged socially responsible, especially those that were seen to treat their employees very well. In the survey, 76 per cent of American consumers agreed that to be socially responsible, companies should place employees’ salary and wage increases above making charitable donations. In the same vein, 76 percent of American consumers believed that a company’s treatment of its employees played a big role in consumer purchasing decisions. A major implication of the findings is that for CSR to enhance firm performance, its content should not simply depict what the firms favour but what the consumers favour since it is their purchasing decisions that make the difference in the patronage build up to enhance firm financial performance. In a 2008 global study of consumer thinking by Good Purpose TM titled “Putting More Meaning into Marketing”, it was shown that almost seven out of 10

(68%) consumers said that they would remain loyal to a brand during an economic downturn if it supported a good cause (Margolis, Walsh, & Efenbein, 2007).

Laura and Sergio’s (2009) study titled “Does Corporate Social Responsibility Affect the Performance of Firms?” also found that CSR firms were more virtuous, and had a better long run performance. They added that although such firms could bear some initial costs arising from their involvement in CSR, they nonetheless obtained higher sales and profits due to the reputation effect of their corporate social responsibility involvements or programmes, as well as a reduction of long run costs and increased socially responsible demands. A study by Nicholas and O’Brien (2007) investigated whether social responsibility practices of Global Australian firms enhanced economic performance of the firms over a three year period. The study titled “investigating Social Responsibility Practices of Global Australian Firms and how those Practices Enhance Economic Success” found that CSR had a positive and strong effect on the firm in terms of community related stakeholder concerns. The results of the study also suggested that it paid for firms to be moderately socially responsible.

# Review of Empirical Studies

Empirical studies revealed mixed results of the impact of corporate social responsibility disclosure on financial performance of quoted firms.

According to Gallardo-Vizquez, Barroso-Mendez, Pajuelo-Moreno and Sanchez-Meca (2019), there is currently a lack of consensus in the literature on the link between performance and corporate social responsibility disclosure (CSRD). A meta-analysis was carried out to shed light on this controversial topic, using the ABI/Inform Complete and EconLit databases as search tools. To isolate articles with substantive, methodological relevance, various filters were used. In addition to other criteria, all articles had to contain

certain keywords related to the study’s variables and at least one of the seven keywords indicating empirical data analysis. As a result of the procedure, the meta-analysis included only 95 articles. To process the sample, we employed the procedure developed by Hunter and Schmidt. The results showed that the CSRD-performance relationship was not significant enough for practical purposes. However, an analysis of moderating variables revealed that the connection became of practical importance when moderated by three key variables: region, type of disclosure and measures of organization size. This study’s findings made a significant contribution by clarifying the links between CSRD and performance, and identifying which variables could explain the diverse results of previous research. Regarding limitations, the meta-analysis was subject to the availability of published research and included only studies that reported Pearson correlation coefficients and standardized beta coefficients.

Ehioghiren and Eneh (2019) examined corporate social responsibility accounting of bank and insurance companies in Nigeria. The population of the study consisted of all the 16 banks and 40 companies quoted on the Nigerian Stock Exchange as at December, 2018. The research design adopted for the study was the ex post facto research design. A sample of 11 banks and insurances companies was selected based on their size from the population of the bank and insurance companies. Data for the study were obtained from annual reports for the period of ten (10) years, ranging from 2007 to 2016. Independent sample test was used to compare the social responsibility expenditure of insurance companies with those of banks. It was established that there existed a significant difference in the social responsibility expenditure of banks and insurance companies in Nigeria. The implication of the findings could be linked to lack of legal prescriptions and ignorance of the benefits of social accounting and reporting.

Ibrahim and Hamid (2019) examined the impact of corporate social responsibility on financial performance of listed non-financial services companies in Nigeria. The study used ex-post factor research design and utilized secondary data collected from the annual reports and accounts of twenty three (23) sampled listed non-financial services companies in Nigeria for a period of 10 years (2008-2017). The sample of the study was arrived at by using concensus sampling technique in which all the elements of the population were used for the study. The data were analysed using descriptive statistics, correlation and regression analysis (GLS Fixed Effect) with the aid of Stata Version 14.0. Robustness tests, namely multicollinearity, heteroscedasticity, normality of residuals, Hausman specification and F-Test were conducted to validate the results.

Gololo (2019) empirically examined the relationship between corporate social responsibility disclosure and financial performance of quoted cement companies in Nigeria. Secondary data were sourced from the quoted Nigerian cement companies’ annual reports. A sample of three [3] companies emerged from the population of five [5] companies using purposive sampling technique method. The study utilized annual reports of ten [10] years period covering [2008-2017] to obtain data for the study. Pooled OLS and Random Effect [RE] Panel Estimation analysis methods were used to display and discuss the results using STATA Version 12. The results revealed that corporate social responsibility disclosure had a significant and positive impact on the employed return on equity and return on capital employed. However, leverage and company size as control variables had a positive significant effect on the financial performance of quoted cement companies in Nigeria. Thus, CSRD was an important component to consider in determining financial performance of companies.

Erhirhie and Ekwueme (2019) examined corporate social sustainability reporting and financial performance of oil and gas industry in Nigeria. This study assessed the effect of corporate social sustainability reporting on return on assets, return on equity, and return on capital employed of oil and gas companies listed on the Nigerian Stock Exchange. Ten oil and gas companies were sampled for the study. The study utilized secondary data collected via financial ratios and accounts of the individual companies and content analysis. The findings showed that social sustainability reporting exerted a negative effect on all three performance proxies, howbeit, only its effect on return on equity was statistically significant.

Oyewumi, Ogunmeru and Oboh (2018) used panel data set from banks in Nigeria, a developing country to examine the effects of corporate social responsibility (CSR) investment and disclosure on corporate financial performance. The results from the Wallace and Hussain estimator of component variances (a two way random and fixed effects panel) suggested that CSR investment without due disclosure would have little or no contribution to corporate financial performance. This paper supported the argument that firms could benefit both financially and non-financially from a strategic CSR agenda.

Oladipupo and Oladimeji (2018) investigated the association that subsisted between firm social responsibility and stock price market. The data for the study were gathered from secondary sources which were from the audited financial records as well as accounts of the listed companies in Nigeria. The study was highly descriptive and empirical as it embraced the use of panel regression technique as the tool of analysis. The findings of regression analysis confirmed as a whole that firm social responsibility did not correlate with stock price market. It also discovered that corporate social responsibility would not be influenced by stock price market.

Seungwoo, Junseok and Ahreum’s (2017) research analysis of CSR on firm financial performance in stakeholders perspective explored the R&D, technology commercialization and CSR motivation as enhancement of corporate performance through CSR from the stakeholders theory. It also investigated both traditional and strategic CSR relationships with financial performance. It used questionnaire survey method and relied on primary data. Questionnaires were only distributed to a specialized company. A research carried out on Safaricom Ltd, a telecommunication company by Wekesa (2017) on corporate social responsibility and financial performance showed an insignificant positive relationship between CSR and financial performance and its indicators, revenue, net income and earnings per share (EPS). The study used correlation research design and also secondary data in collecting the annual financial reports from 2009 to 2017.

Adina and Dumitru (2017) investigated the differences in the market stock price (and other market variables such as dividends and stock return) of companies that showed CSR compared with those that did not. For this study, we used three statistical techniques: discriminant analysis; probit analysis model; and logistic regression. There was no significant difference in the prediction ability of the models in the context where probit model and logistic regression had an average correct classification of 70.29%, while discriminant analysis recorded 71.26%. Our analysis showed that stock return had a significant impact on CSR activities of a company. Moreover, all discriminants had a positive impact on CSR.

Isa and Madaki (2017) examined the impact of Corporate Social Responsibility Disclosure (CSRD) on the financial performance of listed consumer goods companies in Nigeria. The data were collected from the annual reports and accounts of the sampled companies for a period of ten years, from 2005 to 2014. The data were analysed by means of descriptive

statistics to provide a summary of the variables. Ordinary Least Square (OLS) and Generalized Least Square (GLS) regression were used to test the study’s hypotheses using STATA software version 12.00.Thus, a panel data regression technique was employed. The result showed a negative and significant relationship between CSRD and ROA; and a negative but an insignificant relationship between CSRD and ROE; Leverage had a positive but an insignificant relationship with CSR; Tobin’s Q had a positive and statistically insignificant relationship with CSRD while EPS had a positive and significant relationship with CSRD. It was found that the control variables (firm size and age) had a positive and significant relationship with CSRD.

Iqbal (2017) sheds light on the impact of CSR on financial performance (FP) of banking sector of Pakistan, using a sample of 30 commerical banks listed with Pakistan stock exchange for the period of 10 years from 2006 to 2015, selected base upon market capitalization. We applied pooled regression models to investigate the impact of CSR on FP. Empirical findings signify the robustness of pooled model that documented a positive and significant impact of CSR on return on assets, return on equity and earnings per share. This premise holds that CSR has positive and significant impact on FP of selected commercial banks of Pakistan. Based upon key findings, this study postulates CSR phenomenon is consider as an essential growth element and FP-boosting tool by banking industry of Pakistan.

Wan and Muhammad’s (2016) study on corporate social responsibility and financial performance used Malaysia as a case study. The study investigated the relationship between corporate social responsibility and firm performance in Malaysian public listed companies. Independent variables like workplace, community, environment and market place were used, accompanied by some dependent variables like earnings per share (EPS)

and return on equity (ROE). The study discovered a positive relationship between CSR and financial performance.

Sampath (2015) examined the corporate social responsibility activities which were divided into three categories, named: CSR activities to environment; CSR activities to employees; and CSR activities to community. Each sample consisted of thirty listed companies that disclosed their corporate social responsibilities activities from 2010 to 2014. Weighted ranking method was used to measure the CSR activities while average share price was used to determine the share price. Correlation was used to find out the association between corporate social responsibility and share price. Regression was used to check the relationship between corporate social responsibility and share price. The findings revealed a positive relationship between share price and CSR activities for employees or environment. R2 showed that CSR activities were not the crucial factor when making buy or sell decisions of shares.

Fiori, Donato and Izzo (2015) investigated the impact of corporate social performance on stock prices in Italian listed companies. The main stream of literature focused on the relation between CSR and financial performance showing contradictory results that still fed a debate which had not yet reached a unanimous and widely shared position. Concerning the selection of the measure of performance, we chose stock prices as a proxy for financial performance in order to measure the perception and reaction of financial markets to the companies’ social responsible behaviours. Using different social performance indicators concerning environment, community and employment activities, we found evidence that a good social performance had a negative influence on stock prices on the Italian Stock Exchange Market. The phenomenon was particularly evident when the environmental strategies of the Italian listed companies were considered. This evidence is

consistent with the peculiarities of the Italian capitalism structure, which, because of its backwardness in CSR topics and related issues, seems not mature enough to evaluate appropriately the value of these policies.

Noor (2015), in his research on corporate social responsibility practice and corporate financial performance: a case study of Nigerian listed companies, described the nature and trend of the practice of CSR and also the relationship between CSR and corporate financial performance among Nigerian listed companies; Content analysis was used to extract data from annual reports of 68 companies listed on the floor of the Nigerian Stock Exchange. And also, an hierarchical multiple regression analysis was used to examine the relationship between CSR and CFP. The result of the study showed a negative relationship between environmental disclosure and corporate financial performance.

Mahbuba and Farzana (2013) on Corporate Social Responsibility, based their research on the relationship between corporate social responsibility expenditure and bank profitability, and made Dutch Bangla Bank Ltd. (DBBL) in Bangladesh their case study. The hypothesis formulated was tested and the result showed a significant relationship between corporate social responsibility and profitability of DBBL. So, the CSR expenditure provided good returns for the banks in the short run, and in the long run, it would surely provide better returns. The study concluded that there was a significant relationship between CSR and profitability, and the null hypothesis was rejected.

The authors however, pointed out the limitations of the study. First, the study was based only on the net profit after tax of the bank which was one of the major indicators of the bank’s financial performance but not the only one. Second, the study considered only one bank in Bangladesh which did not reflect the overall banking sector of Bangladesh. In Bangladesh, CSR initiatives by banks had risen significantly. So, Bangladesh Bank should

carefully monitor the activities of the banks whether they comply with the mandatory involvement in the CSR activities from net profit which is 10% or more from its previous year’s net profit. Above all, new laws regarding CSR legal restrictions to do CSR activities for the betterment of the people, not for profit making or marketing strategies, will surely bring more sustainable growth to the Bangladesh banking sectors (Mahbuba & Farzana, 2013).

Uwuigbe and Egbide (2012) empirically investigated the relationship between firms’ corporate financial performance and the level of corporate social responsibility disclosures among selected firms in Nigeria. It also looked at the relationship between firms’ financial leverage and the level of corporate social responsibility disclosures among selected firms. While the annual reports for the period 2008 were utilized as the main source of data collection for the sampled 41 listed firms, the multiple regression analysis was employed as a statistical technique for analysing the collected data. The paper revealed that firms’ corporate financial performance and the size of audit firm had a significant positive relationship with the level of corporate social responsibility disclosures among selected firms. Also, the paper, as part of its findings, observed that a significant negative relationship existed between firms’ financial leverage and the level of corporate social responsibility disclosures.

El Mosaid and Boutti (2012) evaluated the degree of CSR in Islamic banks using return on asset (ROA) and return on equity (ROE). The sample size was got from 8 Islamic banks, from 2009 to 2010. Simple regression model was used and the results showed no significant relationship between CSR and firm performance.

The research of corporate social responsibility and its contributions to the development of business in society with Nigeria as a case study by Uadiale and Fagbemi (2012) used a

sample size of 40 quoted companies and a measure for firm performance as return on asset and return on equity. Findings gave corporate social responsibility a positive significant relationship with firm performance.

Amole, Adebiyi and Awolaja (2012) investigated the relationship between CSR and profitability of banks in Nigeria. First Bank Nigeria Plc was used as a case study. Secondary data were obtained from audited annual reports of the bank. The outcome of the regression analysis gave a positive significant relationship between CSR and profitability in the stated case study.

Babalola (2012) conducted a study on corporate social responsibility and profit. Nigeria was used as a case study, and listed firms on the Nigerian Stock Exchange were used to gather secondary data. The findings of the study showed a negative relationship between corporate social responsibility and profit.

Kakakhel, Ilyas, Iqbal, and Afeef (2012) investigated the impact of corporate social responsibility on financial performance of cement sector listed firms on Karachi Stock Exchange (Pakistan). Sample size of fifteen companies selected on the basis of availability of data of companies. For data used annual reports during time period of 2008-2014. For analysis purpose used fixed and random effect models and on the basis of Hausman test fixed model is best for analysis. From the results it is concluded that there is positive and significant relationship between corporate social responsibility and financial performance. These results support the theoretical relationship between corporate social responsibility and financial performance. The Hypotheses of positive and significant relationship of corporate social responsibility and financial performance has been supported. This work also supports the view of all those researchers whose empirical evidence found positive

and significant relationship between corporate social responsibility and financial performance.

Iqbal (2012) analysed the positive impact of CSR on firm performance in his research on the impact of CSR and firm performance in Pakistan. The secondary data used were got from audited annual reports of 156 listed companies on the Karachi Stock Exchange by using correlation and regression analyses. Return on asset and return on equity were used to measure firm performance, while to measure corporate social responsibility, he used social compliance, corporate governance, community investment, social report, product integrity, corporate giving, environmental compliance, and business ethical principle. The findings revealed a positive impact of CSR on firms’ financial performance.

Iqbal (2012) estimates the relationship of corporate social responsibility, financial performance, market value of the share and financial leverage. In this particular study, 156 listed companies on Karachi Stock Exchange (KSE) from textile sector, chemical sector, cement sector and the tobacco sector are taken. The observations are taken for the entire period of 2010 and 2011 from the published resources of state bank of Pakistan. In aggregate, the results of the study conclude that corporate social performance (CSR) has no effect on financial performance (CFP). It is obvious from the results that CSR has negative effect on the market value of the share but no relationship to D/Ea behaviour of the firm, significantly. Moreover, the investors do not have the same level of information as the information is captured by the management abou the company affairs. In addition, the debt singling hypothesis indictes that the further incorporation of debt into capital structure should include the behaviour of the investor, regarding to the investment in the shares positively, but due to information asymmetry, it is negative.

Prior studies by Kamal (2012), Webb (2009), Cetin, Dammar and Husoy, (2007), Carroll, (1999), Garry (1995), and Chrong (1993) reported that the introduction of CSR was generated from economic, political, agency, stakeholder, legitimacy, and ethical theories. Stakeholder theory, which was the main theory on which this research was based, posits that an organization exists primary not only for itself and owners but also for the benefit of society at large. Firms that engage in CSR do so as a way of giving back to society.

A research on the relationship of corporate social responsibility and firm performance of banks in the US, UK and Japan by Keffas and Olulu-Briggs (2011) utilized 38 financial and economic ratios that covered asset quality, capital, operations and liquidity. Data Envelopment Analysis was used. The findings showed that banks which incorporated CSR were more efficient in managing their asset portfolios. Therefore, its results were positive.

Corporate social responsibility in some firms do not prevent a drop in their market value. CSR activities engender no improvement in some companies’ value performance, only long-term growth in return on equity (Cho, Lee, & Park, 2012). Nelling and Webb (2004) asserted that corporate social responsibility was driven more by unobservable firm characteristics than by financial performance. They suggested that stock market performance led to a greater firm investment in the aspect of corporate social responsibility devoted to employee relations, but CSR activities did not affect financial performance. The authors however, stated that the only aspect of corporate social responsibility that was driven by stock market performance was employee relations. This suggests that if corporate social responsibility activities provide benefits to the firm, such benefits appear to manifest in unrelated dimensions to financial performance.

According to a popular opinion, seven out of ten consumers said that they would remain loyal to a brand during an economic downturn if it supported a good cause. Poddi and

Vergalli (2009) also found that corporate social responsibility firms were more virtuous, and had long run performance. They added that although such firms could bear some initial costs arising from their involvement in corporate social responsibility, they, nonetheless, obtained higher sales and profits due to the reputation effect of their corporate social responsibility involvements or programmes, as well as a reduction of long run costs, and increased socially responsible demands.

Heal (2009) asserted that poor shouldering of CSR cost organizations dearly through the loss of reputation and goodwill. This means that organizations that properly integrate corporate social responsibility into their business strategy develop good programmes to implement this strategy, and also go ahead to implement the CSR strategy effectively to enjoy a high reputation and accumulate high reputational assets. He also stated that corporate social responsibility could reduce a firm’s cost of capital through the impact of corporate social responsibility Investing (SRI).

Sweeney and Coughlan (2008), researched on reporting the corporate social responsibility that corporate entities engaged in and if different industries reported corporate social responsibility differently. The authors investigated how annual reports addressed the CSR concerns of various groups of stakeholders to determine whether the group’s orientation was stakeholder and industry specific. Based on stakeholder theory, significant emphasis is given to stakeholder attributes and characteristics including power, legitimacy, and agency, as well as to primary and secondary stakeholder categorization. A content analysis approach was utilized to examine annual reports of 30 large public global companies, by industry, for CSR messaging. The analysis identified strong similarities in the targeting of CSR communications in the annual reports and intra-industries, and even though some companies had separate CSR reports, the information was always summarized in the

annual reports. The research also pointed out a lack of clear focus on the benefits of CSR for the shareholder as a specific stakeholder, as only one out of the seven industries in the study put any focus on them.

Mackey, Mackey and Barney (2007) found that sometimes, when firms began socially responsible activities, their market value would increase and sometimes, it would reduce instead of increasing. They also found that sometimes, when firms ended socially responsible activities, their market values would decrease while in some other firms, the market value would increase. Also, continuing current socially responsible activities, either by continuing to invest or not to in these activities increases a firm’s market value. This is a classic example of mixed findings. The authors concluded by stating that only by examining the supply of a demand for socially responsible investment opportunities at the time those decisions were made could the relationship between a firm’s social responsibility strategies and its market value be understood (Mackey, et al., 2007).

Matthew, Rebecca and Greg (2007) researched corporate social responsibility and firm performance using Australia as a case study. Their research stated that corporate social responsibility had endangered the interests of Australian economy in recent years. The method used cut across 300 ASX listed companies for 2005 financial year. A sample of 277 companies was used after eliminating companies with missing data (McWilliams & Siegel 2000). The result stated that there was no significant relationship between corporate social responsibility and firm performance.

Colbert and Kurucz (2007) reported that 68 per cent of the 250 largest multinational corporations had adopted CSR reporting by 2005. The most recent Klynveld Peat Marwick Goerdeler (KPMG) Survey (2011) showed that 95 per cent of the Global Fortune 250 companies reported their CSR activities and that reporting, overall (in the 34 companies

surveyed), had increased by 11 percent in 2008 to 64 per cent. According to some authors, what particularly makes these stand-alone reports remarkable is that they represent a clear engagement of corporations with the increasingly critical issues of environmental and social responsibility as well as business sustainability (Gray & Herremans, 2011).

According to Egwuonwu (2006), the three methods of evaluating corporate social responsibility performance are the accounting or financial measures, market/stock market value measures and the mixed measure which include the reputational assets accumulated through engagement in corporate social responsibility programmes.

There is quite a large amount of literatures, empirical and otherwise that positively associates corporate social responsibility with enhanced firm performance. The effort appears so overwhelming that even firms with conservation spending increasingly indulge in corporate social responsibility efforts. This is true even for Nigeria where a lot of firms are into the practice of corporate social responsibility. A survey of Americans in 2006 clearly showed that two thirds of Americans would patronize or buy the products of companies they adjudged socially responsible, especially those that were seen to treat their employees very well. A major implication of the findings is that for corporate social responsibility to enhanced a firm’s financial performance, its content should not simply depict what the firm favours but also what the consumers favour since it is their purchasing decisions that make the difference in the patronage build up to enhance firm financial performance (Egwuonwu, 2006).

One major way the practice of corporate social responsibility has been found to enhance firm value is through the reduction of conflict with stakeholders. Majority of literatures underscore this reality, especially as it is noted that firms use corporate social responsibility to reduce the risks in their environment. When firms are at peace with their

environments and host communities, wastage that arise from conflicts is eliminated and the firm is placed in the right frame of mind to concentrate on the business of adding value to its numerous stakeholders, especially the shareholders. That is why some researchers assert that doing CSR is good business, that the avoidance or reduction of conflicts is indeed a major contribution to effective firm corporate social responsibility programme (Egwuonwu, 2006).

A few empirical literatures did also not find any positive relationship between corporate social responsibility and firm performance. Becchetti and Ciciretti (2006) found that individual social responsibilities firm stocks, on average, had significantly lower returns and unconditional variance than control sample stock when controlling for industry effects. Again, corporate social responsibility activities may affect the productive impacts of efficiency, technical change and economies of scale as well as increase input costs composition. Also, the exact impact of CSR on organizational value or performance is dependent on firm characteristics such as the motivation for socially responsible actions, tax laws, location, plant age and innovation activities.

Dentchev (2004) proved that the CSR strategy could harm the competitive advantage of the firm if not carefully conducted. His result revealed positive but also negative consequences of a corporate policy based on CSR. On the positive side, corporate social responsibilities could lead to improved stakeholder relationship, enhance corporate reputation and strengthen the business model of the firm. On the negative side, the freely assumed corporate responsibilities could lead to reputation damage, misunderstanding and wrong perceptions mainly based on a lack of knowledge, lack of credibility and lack of information. The conclusion was that the theory on information asymmetry should also be used in explaining the strategic importance of corporate social responsibility.

A study carried out by Mangos and O’Brien (2000) showed that corporate social responsibility had a positive and strong effect on the firm in terms of community related stakeholder concerns. The results of the study also suggested that it paid for firms to be moderately socially responsible.

A corporation’s relationship with regulators can be of real significance in heavily- regulated industries. A reputation for being green (supporting or promoting the protection of the environment) can also be of use to an oil company in negotiations for access to potential oil reserves in environmentally sensitive areas. Applications for exploration permits in such areas are generally contested by environmental groups, and a reputation for environmental sensitivity may be an asset in overcoming the reservations raised. In general, a regulatory decision in favor of a company with a strong reputation for socially responsible behaviour will be greeted more positively than one in favor of a company seen as anti-social in its conduct. This must influence regulators in their decisions (Abbey, 2002).

Simpson and Kohers (2002) supported the hypothesis that the link between corporate social responsibility and financial performance of the firm was quite positive. Preston and O’Brien (2008) also saw no significant negative relationship between corporate social responsibility and firm financial performance. Various studies on corporate social responsibility observe that total sales per employee is significantly higher in firms that carry out corporate social responsibility, notwithstanding the fact that smaller portions of the financial benefits so derived go to shareholders, suggesting that returns on equity may be lower in CSR firms. But this seeming penalty of relative lower return on equity is compensated for by reduced conditional volatility on social responsibility. Negative consequences are the portion of firms that abandon corporate social responsibility. Zsolnai (2006) stated that caring organizations were rewarded for the higher costs of their socially

responsible behaviour by their ability to form commitments among owners, managers and employees, and from established trust relationships with customers and sub-contractors. He went ahead to state that people who were basically motivated to adhere to ethical norms often prospered in competitive environments; and that socially responsible firms could survive in competitive environments because social responsibility brought substantial benefits to firms. According to Small and Zivin (2005), when a sizable fraction of investors prefer corporate philanthropy to direct charitable giving (e.g., to avoid taxation of corporate profits), firm valuations will be maximized by following social policies that involve strictly positive levels of corporate philanthropy. Abbey (2002) also asserted that a strong social and environmental performance led to a strong financial performance.

McWilliams and Siegel’s (2000) research on corporate social responsibility and financial performance estimated the effects of CSR by regressing firm performance on corporate social performance. Two models were used: the specification model and the correlation model. Results showed that R&D and corporate social performance were highly correlated. Therefore, when R&D intensity was infused in corporate social performance, there was a neutral effect on profitability.

Two studies that used risk adjusted measures of investor returns were by Anderson and Frankle (1980) and Alexander and Buchholz (1978). However, there is a problem with the use of even a “clean” measure of investor returns for this type of study. This problem is summarized by one of the tenets of modern finance theory, the efficient markets hypothesis. Simply stated, this tenet posits that as information that might affect future cash flows of a firm becomes available, it immediately will be reflected in its current share price. The implication of this is that even if CSR does lead to an improved financial

performance, as soon as the market becomes aware of any change in a firm’s CSR rating, it will immediately alter price per share to reflect that information. As Alexander and Buchholz (1978) noted, after such a reaction, only new information regarding a firm’s social responsibility would have any affect on the firm’s financial performance. Thus, if the perception of a firm’s social responsibility changed in 1975 and a naive researcher examined only the period 1977-1979, then he or she probably would conclude that CSR and financial performance were unrelated. In order to employ investor returns measures of financial performance properly, the researcher must conduct an “event study.” Failure to do so can lead the researcher, incorrectly, to the conclusion that there is no relationship between CSR and financial performance, even if one actually exists.

As noted earlier, the previous empirical work in this area reached no real consensus on the nature of the relationship between CSR and financial performance. Out of the 14 studies examined, nine, Anderson and Frankle (1980), Ingram (1978), Preston (1978), Spicer (1978), Sturdivant and Ginter (1977), Bowman and Haire (1975), Bragdon and Marlin (1972), Heinze (1976), and Moskowitz (1972) found some positive relationship between CSR and financial performance. However, as noted earlier, because of the incorrect specification of the financial performance proxy, small sample size and questionable methodology, the results must be viewed with suspicion.

Three studies by Abbott and Monsen (1979), Alexander and Buchholz (1978), and Folger and Nutt (1975) found no real link between these variables. Alexander and Buchholz (1978) as well as Abbott and Monsen used forms of investor returns as proxies for financial performance. Abbott and Monsen, however, failed to account properly for risk. Alexander and Buchholz did properly account for risk, but they did not employ an event study and thus failed to discover a relationship even if one did exist. One study (Vance,

1975) found a negative relationship between the variables. However, as discussed earlier, his proxy for investor returns (only change in share price) was clearly insufficient.

In order to overcome this problem, several researchers, Abbott and Monsen (1979), Alexander and Buchholz (1978), Preston (1978), Vance (1975), and Moskowitz (1972) compared their samples to broad market averages such as the Standard and Poors 500. This step represents an improvement, but comparison to industry control groups is superior. Accounting practices, operating leverage, and other variables that may influence test results will be more homogeneous within industries. Sturdivant and Ginter (1977) recognized this problem and grouped their sample into four somewhat homogeneous subgroups. Unfortunately, by doing so, they reduced their overall sample size and did not, necessarily, create subgroups with sufficient homogeneity. Finally, the time period(s) employed in a number of the previous studies was too short. Seven of the studies employed time periods equal to or less than two years. Only five of the studies used time periods greater than or equal to five years.

One particularly innovative methodology that avoids many of the earlier problems with investor returns was employed by Ingram (1978). He tested for a correlation between social responsibility disclosures (used by others as a proxy for CSR) and financial performance while controlling for both risk and industry effects. The procedure may be viewed as a reverse cluster analysis where the sample is iteratively split into subgroups, with the grouping criterion being maximization of the difference of a functional relationship between each of the two subgroups at each iteration. The functional relationship that Ingram used was excess market return for each firm as the dependent variable. He used fiscal year, excess accounting earnings, and industry as explanatory variables. Ingram’s procedure divided his sample of 116 firms into 10 subgroups wherein

each subgroup had two sets of firms—one having higher excess market returns than the other. In seven of those subgroupings, firms in the higher excess market return category had better CSR ratings than those in the lower excess market return category. The reverse was true for the remaining three subgroups (Ingram, 1978).

Although the technique avoided many of the problems encountered by earlier studies, one must be cautious in interpreting Ingram’s results as a support for a correlation between CSR and financial performance. If, in fact, in Ingram’s null hypothesis there is no relationship between social responsibility disclosures and financial performance, then 7 or more of the 10 groups would have disclosure ratings in the higher financial performance categories with a frequency of 11.32 percent. This clearly is not a strong rejection of the null hypothesis (Ingram, 1978).

Most of the previous work in this area employed samples that were too small to result in any safely generalizable results. The Folger and Nutt’s (1975) study, for example, examined only nine firms. In fact, 6 out of the 14 studies examined here had samples of less than 30 firms. Secondly, the control groups in a number of those studies were too small. In several of the studies, the small sample of CSR firms was segmented and subgroups were compared. In others, the sample was matched with an external control group of a similar size. All but four of the studies employed control groups smaller than 100 firms.

# Theoretical Framework

It is the “blueprint” or guide for a research (Grant & Osanloo, 2014). It is a framework based on an existing thory in a field of inquiry that is related and/or reflects the hypothesis of a study. It is a blueprint that is often ‘borrowed’ by the researcher to build his/her own house or research inquiry. It serves as the foundation upon which a research is constructed.

Sinclair (2007) as well as Fulton and Krainovich-Miller (2010) compare the role of the theoretical framework to that of a map or travel plan. Thus, when travelling to a particular location, the map guides your path. Likewise, the theoretical framework guides researcher so that he/she would not deviate from the confines of the accepted theories to make his/her final contribution scholarly and academic. Thus, Brondizio, Leemans, and Solecki (2014) concur that theoretical framework is the specific theory or theories about aspects of human endeavour that can be useful to the study of events. Theoretical framework consists of theoretical principles, constructs, concepts, and tenents of a theory (Grant & Osanloo, 2014). In this study, the theories applicable are: Shareholders theory; Stewardship theory; and Stakeholder theory.

# Shareholders Theory

This theory states that an organization’s commitment to operate in an economic and environmentally sustainable manner while recognizing the interest of the stakeholders will lead to a positive significant result in the financial performance (Freeman 1984, 1994). This theory, proposed by Milton Friedman, stated that profit making is the primary responsibility of any company, business or organization. In the theory, social responsibility is to be ignored while recognition is based only on shareholders’ wealth. Resources are not used effectively when companies engage in different CSR activities (Henderson, 2001) so, managers are believed to work on behalf of shareholders to perform important functions. This theory also points out that owners/entrepreneurs are special stakeholders of the company therefore, their interest should be prioritized over other stakeholders’ because they are the major providers of fund to the business. Therefore, companies should incorporate the interest of shareholders that affects the company positively or negatively.

Ancrum (2006) posited that the new framework for companies to embrace was derived from the recognition that profit alone did not guarantee sustainable success but it needed to be balanced with other factors: reputation; brand value; and retention of human capital. This new framework is the value-creation business model which implies the combination of personal principles, corporate ethics and commercial sustainability.

# Stewardship Theory

Stewardship theory is a relatively new concept (Karns, 2011) and assumes that the manager is a steward of the business with behaviours and objectives consistent with those of the owners. The theory suggests that the firm’s purpose is to contribute to humanity by “serving customers, employees and the community” (Karns, 2011). At the center of the theory’s foundation is the concept that the business is here to serve rather than prouce a profit. However, to be able to serve, the firm must be able to sustain itself economically and this theory promotes efficient use of resources through working with stakeholders. It views profits as necessary and an important funding mechanism to the primary objective of meeting the service-oriented mission.

A stewardship focused firm aligns itself with the needs of society and through risk taking and innovation, attempts to improve the life of others utilizing a business approach (Karns, 2011). The managers of such a firm are not motivated by personal needs and desires, but rather see themselves as stewards with the same motives and objectives as the owners of the firm (Davis, Schoorman, & Donaldson, 1997). Integrity, justice, and respect are the core values of the firmand serve as the foundation for management’s actions on all decisions. The pursuit of wealth building is secondary to serve for the common good from sustainable business functions focused on the betterment of people and planet.

Underlying this philosophy of service is the perception that management is composed of trustworthy individuals working together with all levels of employees and other stakeholders (customers, suppliers, communities) who share the same philosophy (Davis, Schoorman, & Donaldson, 1997). This behaviour is a collective effort and will result in positive bneefits to the owners of the business through increased sales and profits. Decisions are made by management based on the perception of what is best for the grup rather than the individual. The more groups satisfied, the more profits will be created, and the greater the financial rewards. Consequently, stewardship theorists build structures that empower and facilitate management believing that it is not necessary to develop control or monitoring mechanisms since management has the same intrinsic values as the owners (Davis, Schoorman, & Donaldson, 1997).

Stewardship theory is much more of an altruistic approach to business than agency theory. It promotes a broader focus and purpose than agency theory and assumes not only that management’s incentives are not in conflict with those of the owners but also that the role of business is to promote the health of our society. Given the history of business scandals and failures, one could argue that maybe business is not capable of implementing such a concept today or in the near future.

Stewardship theory is a framework which argues that people are intrinsically motivated to work for others or for organisations to accomplish the tasks and responsibilities with which they hae been entrusted. It argues that people are collective minded and pro- organizational, rather than individualistic and therefore work towards the attainment of organizational, group, or societal goals because doing so gives them a higher level of satisfaction. Stewardship theory therefore provides one framework for characterizing the motivations of managerial behaviour in various types of organisations (Caldwell, Hayes, Karri, & Bernal, 2008).

The steward theory states that a steward protects and maximizes shareholders wealth through firm performance. Stewards are company executives and managers working for the shareholders, protects and make profits for the shareholders. The stewards are satisfied and motivated when organizational success is attained. It stresses on the position of employees or executives to act more autonomously so that the shareholders’ returns are maximized. The employees take ownership of their jobs and work at them diligently.

The assumptions of stewardship theory are that long-term contractual relations are developed based on trust, reputation, collective goals, and involvement whre alignment is an outcome that results from relational reciprocity.

# Stakeholder Theory

It is understood that the meaning of stakeholders is very broad indeed as it goes beyond those who have purely formal or contractual ties to the organization. Other authors writing on the subject have defined stakeholders similarly. Evan and Freeman (1988) clarified the definition by stating that stakeholders were those groups of people who had a stake in or a claim in the firm. They specifically outlined suppliers, customers, employees, stockholders, the local community and management as the stakeholder groups in an organization. Carroll (1993) defined a stakeholder as any individual or a group of people who could affect or were affected by the actions, decisions, policies, practices, or goals of the organization.

Stakeholders can be identified by the legitimacy of their claims which is substantiated by a relationship of exchange between them and the organization. Hence, stakeholders include stockholders, creditors, managers, employees, customers, suppliers, local communities and the general public. Hill and Jones (1992) noted that the term, stakeholder, refered to groups of constituents which had a legitimate claim on the firm. This legitimacy is

established through the existence of an exchange relationship, that is, an identifiable contract that can be shown to exist between two parties. Each of these groups can be seen as supplying the firm with critical resources (contributions), and in exchange, each expects its interests to be satisfied (by inducements).

Some early studies by Clarkson (1995) and Freeman (1984) also found it useful to define stakeholders as either primary or secondary. Clarkson (1995) argued that a primary stakeholder was one without whose continuing participation the corporation could not survive as a going concern; and secondary stakeholders as those who influenced or affected, or were influenced or affected by the organisation, but were not engaged in transactions with the organization and therefore, not essential to its survival. According to Freeman (1984), primary stakeholders are those upon which the organization depends for its survival (customers, shareholders, government and employees) and secondary stakeholders are those who have an interest in the organization or the organization’s activities, although the organization may not depend on these groups for its survival. The stakeholder theory suggests that stakeholders have intrinsic value in and of themselves, and the company therefore, has an obligation to uphold their rights and serve their interests simply because they exist (Goodijk, 2003; Donaldson & Preston, 1995).

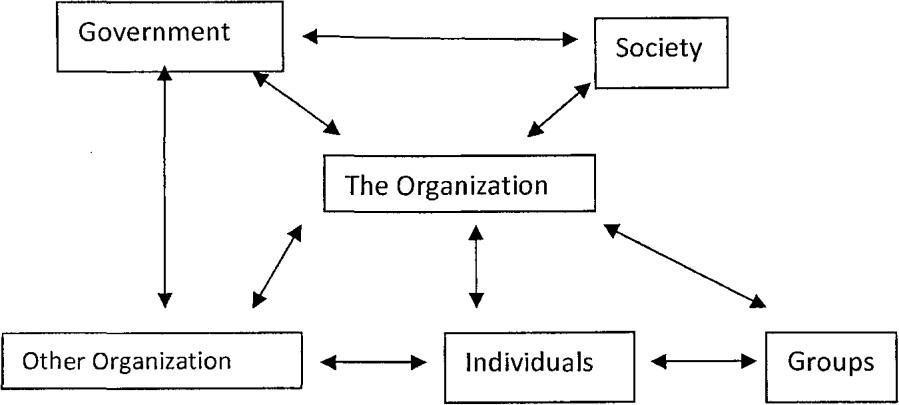
In 1984, Freeman introduced the stakeholder theory and mentioned that the core value of the theory was social responsibility. In order for a company to reduce information asymmetry, there needs to be equilibrium among stakeholders and CSR financial reporting. Therefore, the stakeholder theory should be viable to companies and ease the relationship among stakeholders (Bonson & Bednarova, 2015). Numerous theories have been advanced why MNCs practise CSR but the most dominant paradigm is stakeholder theory (Freundlieb & Teuteberg, 2013) which proposes that all organizations have various

groups of people or individuals that affect or are affected by the activities of the firm (Sweeney & Coughlan, 2008). The primary reason for CSR/Sustainability reporting is to provide stakeholders with the information they need to make decisions (Tschopp, 2011). Nemetz (2013), in his environmental performance model, listed four main stakeholder groups: the government; internal stakeholders; external stakeholders; and financial stakeholders. Government policies, laws and regulations affect CSR/sustainability reporting. Internal stakeholders include board members, executives, employees, and various departments such as human resources, legal and accounting. External stakeholders include unions, non-governmental organizations, professional organizations, customers, and the general public. Financial stakeholders include banks, investors and insurers (Nemetz, 2013). An MNC has both obligations and responsibilities towards the stakeholders which it needs to discharge.

The theory simply states that the needs of the various stakeholders (suppliers, government, creditors, employees, shareholders, etc) have to be satisfied by the managers. The grouping of the stakeholders under six (6) main headings of shareholders, employees, customers, government, community, environment, and other business agents include: suppliers, trade unions, competitors and other business associates (Mullins 2002). The theory was originally detailed by Freeman (1984). Other developments of the theory point to Mitchell, Agle and Wood (1997), Phillips (2003) and Donaldson and Preston (1995). The theory is divided into normative, instrumental and visually descriptive theories. Normative perspective deals with the level of motivation of CSR in generating corporate performance while the explanatory perspective deals with the emergence of CSR in relation to corporate management. In other words, the infusion of stakeholders’ interest into firm performance may be positively enhanced (Freeman 1984).

According to Freeman (1984), a stakeholder is any group of people or individuals who can affect or are affected by the achievement of the firm’s objectives. Lipunga (2013) opined that stakeholder theory presupposed the existence of a number of groups within and outside the organization with each having a stake, and expecting accountability from the organization. Stakeholder theory suggests that since people voluntarily associate in a firm, their interests must be pursued single-mindedly. Uddin (2008) stated that a company was a group of people getting together so that they could accomplish something collectively that they could not get separately, and contribute to society. Because the company lives within society, it is the same society that tells the number of stakeholders to which the organization has responsibility. Furthermore, the responsibility may be broad or narrow depending on the industry in which the firm operates and its perspective. Ullmann (1985) suggested that stakeholders’ (owners, creditors or regulators) power to influence corporate management decision depends on the stakeholders’ degree of control over resources required by the corporation. The more critical stakeholders’ resources are to the continued viability and success of the corporation, the greater the expectation that the stakeholders’ demands will be addressed.

# Fig. 2.1 Stakeholder group



**Source:** David and Gulier (2008)

Clarkson (1995) divided stakeholder group into primary economic and secondary groups. Primary stakeholder group are those people without whose continuous participation the corporation cannot survive as a going concern. They include shareholders, employees, creditors, customers, suppliers and the public (government and communities). The secondary group, also known as the social group, include media, local and international organization. Every stakeholder being important to an organization means that proper understanding will naturally motivate any rational individual, group or organization to intrinsically and willingly give to society. Management’s overall attainment of objectives should no longer be viewed in terms of how much it has satisfied the need of the internal members and perhaps the government; the local community must be taken into consideration (Bessong & Tapong, 2012).

But Mele (2008) asserted that any attempt by the firm to bring fairness into stakeholder representation would present some difficulty in corporate decision making apart from portraying the firm as merely existing to service the interest of stakeholders.

The theories that are very important to this study were the shareholders theory and most importantly, the stakeholder theory. According to Freeman (1984, 1994), shareholder theory states that an organization’s commitment to operate in an economic and environmentally sustainable manner while recognizing the interest of the stakeholders will lead to a positive signifnicant result in its financial performance. On the other hand, Carroll (1993) defined a stakeholder as any individual or a group of people who could affect or was affected by the actions, decisions, policies, pratices, or goals of the organization. Similarly, Freeman (1984) defined a stakeholder as any group of people or individuals who could affect or were affected by the achievement of the firm’s objectives. The stakeholder theory suggests that stakeholders have intrinsic value in themselves and in

the company; therefore, they have an obligation to uphold their rights and serve their interests simply because they exist (Goodijk, 2003; Donaldson & Preston, 1995).

Stakeholder theory, which is the main theory on which this research was based, posits that the organization exists primarily not only for itself and the owners but also for the benefit of society at large. Firms that engage in CSR do so as a way of giving back to society.

# CHAPTER THREE METHODOLOGY

# Introduction

Research methodology indicates the specification of the procedure employed by a researcher in putting together the raw facts and data for processing and the estimation techniques to be utilized. This chapter contains information on the population, sample and sampling procedures, method of data collection, sources of data, research design, method of data analysis, model specification, and operationalization of variables. In most cases, the success of a research study, to a large extent, depends on the method applied in the collection of research materials (Akindele, 1997).

# Research Design

Nachmias and Nachmias (2009) posited that research design was the logical model of proof that allowed the researcher to draw inferences concerning an investigation. Designing a study helps the researcher to plan and implement it in a way that helps the researcher obtain intended results, thus increasing the chances of obtaining information that could be associated with the real situation (Burns & Grove, 2001). Research design means the structuring of investigation aimed at identifying variables and their relationships to other variables. It is used for the purpose of containing data to enable the researcher to test hypotheses through the various stages of the research (Asika, 2008). It does not mean the specified method for collecting data, but the more fundamental question of how the study’s subjects will be brought into the scope of the research and how they will be employed within the research setting to yield the required data (Abdellah & Levine, 1979).

It can therefore, be seen as a framework or plan that is used as a guide to collect and analyse the data for a study (Baridam, 1999).

The ex-post facto research design was used in this research. Kerlinger (1970) noted that *ex post facto* research was one in which the independent variable or variables had already occurred and in which the researcher started with the observation of a dependent variable or variables. Ex-post facto design is a quasi-experimental study which involves collecting and analysing data from some variables which are already in place without manipulating any of them in order to find out how some of them influence or are related to other variables (Nwankwo, 2006; Simon & Goes, 2013). It is a method in which groups with qualities that already exist are compared to some dependent variables (Cohen, Manion & Morison, 2000).

Ex-post facto study or after-the-fact research is a category of research design in which the investigation starts after the fact has occurred without interference from the researcher (Salkind, 2010). The ex-post facto research design was chosen for the study because of its special characteristics which are that the independent variable(s) is(are) not manipulated and may have already occurred. Again, it is less costly and time-consuming to conduct.

# Philosophical Underpinning of the Study

The justification for a research philosophy must be made by taking into consideration the nature of the research questions and objectives. The choice of the particular research philosophy and the approach or underpinning is crucial and can help the researcher to clarify various research designs, recognize which design is suitable to the research, and resrach designs that may be outside the researcher’s experience. Research philosophy relates to the development of knowledge, and it is epistemological in nature. According to

Saunders, Lewis and Thornbill (2009), there are six philosophical perspectives which are positivism, realism, pragmatism, interpretivism, objectivism and constructionism.

This research is premised on the positivist philosophy whih entails working with an observable social reality in which the researcher is independent of and neither affects nor is affected by the subject of the research. The study thus involved a structured methodology employed to facilitate replication with emphasis on quantifiable observatiosn that lend themselves to statistical analyses. Research approaches can also be deductive or inductive (Baridam, 1999). Deductive owes more to positivism and inductive to interpretivism. This study adopted a deductive strategy where existing theories provide the basis of explanation which gives room for the prediction and control of social phenomenon. The hypotheses formulated and tested assisted the researcher to make meaningful deductions in this respect.

# Study Population

A population is the aggregate of all cases that conform to the same designated set of specifications (Nachmias & Nachmias, 2009). According to Adegbiji (2015), population of study is the totality of people in a particular area. The population of a research has been defined by Nwankwo (2006) as a universe of some group of people or objects who or which an investigator is interested in. It is used to denote the total number of people in any particular geographical area to whom the results of the study will be generalized.

The population of this study was made up of all the non-financial companies listed on the Nigerian Stock Exchange in the period covered in the study, from 1997 to 2018. As at 21st September, 2019 the number of listed non-financial companies on the Nigerian Stock Exchange was 109, it was made up as follows:

|  |  |  |
| --- | --- | --- |
| Consumer Services Sector | = | 13 |
| Healthcare Sector | = | 11 |
| Basic Materials Sector | = | 12 |
| Consumer Goods Sector | = | 28 |
| Industrial Sector | = | 25 |
| Oil & Gas Sector | = | 13 |
| Technology Sector | = | 7 |
| (**Source:** NSE, 2019). |  |  |

# Sample and Sampling Technique

The basis for sampling is justified by the law of statistical regularity which holds that, on average, a sample selected from a given population will exhibit the properties of its source (Green, 2003). According to Ogbole (2013), sampling techniques are the procedure for collecting information from the representative sample of the population for the purpose of generalizing from the sample to the population. A sample is precisely a part of the population. The procedure for drawing samples from a population is known as sampling. Therefore, to select our sample size from the total population, the study adopted Yaro Yamane’s method (Yamane, 1967, 1973) with 95% confidence level. This technique was recommended by the National Educational Association (NEA) and it requires only the knowledge of the population (Nwankwo, 2006).

The justification for the use of the sampling technique was that most of the recent studies such as Baridam (1999), Ukwuije (2003) and Nwankwo (1999, 2006) adopted it. Hence, the technique was considered fit to be used in this study. It is mathematically expressed as:

n = N 1 + N(e)2

(Source: Yamane Yaro, 1967, 1973)

Where n = Sample size

N = Total population e = Margin error

|  |  |
| --- | --- |
| n = | 109 |
|  | 1 + 109(0.05)2 |
| n = | 109 |
|  | 1 + 109(0.0025) |

n = 86 (rounded)

Therefore, the sample size was 86 listed non-financial companies representing 79% of the population under study.

In order to avoid bias, the simple random sampling technique was adopted to select the 86 listed non-financial companies that formed the sample size (see 1.7). The specific random sampling method adopted was the balloting or hand drawing method. This is preferred to other methods of simple random sampling because it is easy to use, less costly, less time consuming and less complex (Nwankwo, 2006). The technique has been described as the most fundamental method of probability sampling and it is well suited for determining the sample as it provides an equal probability of selection, and as such, minimizes selection bias.

# Sources of Data

There are basically two sources of data, primary and secondary sources. The **primary data** sources include the questionnaires, personal interviews, etc, while the **secondary data** are sourced from literatures, textbooks, journals, publications, etc (Baridam, 1999). Secondary data were used for the study. The justification for the use of this method in this study was supported by recent studies by Jayeola, Agbatogun and Akinrinlola (2017), Ndubuisi and Ezechukwu (2017), Uwuigbe, Uwuigbe and Bernard (2015), Omokhudu and Ibadin (2015) and Olugbenga and Atanda (2014). The data for the sampled listed companies were sourced from the Nigerian Stock Exchange Fact Books and the Companies’ Annual Financial Reports and Footnotes for the periods covered in the study. The data were personally collected by the researcher and his assistants.

It should be noted that although there are a variety of media or documents for CSR disclosure which include advertisements or articles published detailing a company’s activities, booklets or leaflets and Websites, annual reports are broadly viewed as the main official and legal documents which are produced on a regular basis and act as an important piece for the presentation of a firm’s communication within political, social and economic systems. They are the most publicized by companies. Therefore, this study was restricted to CSR measurements in annual reports of the selected quoted companies.

# Data Analysis technique

The study made use of Panel Least Square (PLS) regression analysis as the data analysis method. Gujarati (2003) suggested four critical assumptions that must be met before utilizing the regression analysis. Firstly was the assumption of normality which required that samples be drawn from normally distributed populations and they be examined using the Jacque-bera statistics. Second was the assumption of linearity of the model parameters.

A numerical test of linearity (White, 1980) should also be conducted. Thirdly was the assumption of homoscedasticity which required the variance or standard deviation of the dependent variables within the group to be equal, and fourthly was the assumption of independence of error terms. Under this assumption, the error terms are independent from one another and therefore, no serial correlation exists. To test the homoscedasticity assumption, the auto regressive conditional heteroskedasticity (ARCH) test was utilized. Finally, to test for multicollinearity, this study applied correlation coefficient and variance inflation factors (VIF) tests. Given the above discussion, the various tests were conducted to test the data against the regression assumptions. Thereafter, preliminary analysis was conducted and then the regression estimates were computed. Indicators of the models statistical fit such as the R2 were examined alongside the indicators of parameter significance such as the t-test and the probability values (White, 1980).

# Model Specification

In the definition of what constitutes corporate social responsibility disclosure, the study built on the findings by Owolabi (2010). In a comprehensive analysis of corporate social responsibility disclosure data for selected quoted companies in Nigeria sampled from 2006 to 2010, Owolabi (2010) identified the following CSR disclosures in financial statements which were coded and defined below. However, the model was re-specified to examine the effect of selected variants of CSR activities often reported in financial statements on specific corporate performance indices.

Adopting Owolabi’s model, then;

*FPit = f(CSRD) (1)*

We decompose CSRD into core dimensions as specified in equation 2 below;

*FPit = f(GD, EIS, EA) (2)*

The econometric specification with the control variables included is presented in equation 3 below;

*FPit = β0 + β1GD + β2EIS + β3EA + β4LEV + β5FSIZE + μit (3)*

In this study, four measures of financial performance are employed, this include ROE, ROA, EPS and SP. Specifying them as dependent variable expands the model specifications as shown below;

*ROEit = β0 + β1CSREIS + β2CSREA + β3CSRGD + β4LEV + β5FSIZE + μit (4)*

*ROAit = β0 + β1CSREIS + β2CSREA + β3CSRGD + β4LEV + β5FSIZE + μit (5)*

*EPSit = β0 + β1CSREIS + β2CSREA + β3CSRGD + β4LEV + β5FSIZE + μit (6)*

*SPit = β0 + β1CSREIS + β2CSREA + β3CSRGD + β4LEV + β5FSIZE + μit (7)*

Where;

FP = Financial performance

CSRD = corporate social responsibility disclosure ROE= Return on equity

ROA= Return on assets EPS=Earnings per share SP = Share Price **Control variables:**

LEV = Leverage FSIZE = Firm size

CSRDEIS = Corporate social responsibility disclosure on employment of indigenous staff; CSRDGD= Corporate social responsibility disclosure on gifts and donations; and CSRDEA= Corporate social responsibility disclosure on environmental activities

# Operationalization of Variables

These are the operational definitions (tabulated) of the variables used in the study, i.e. the dependent and independent variables.

# Table 3.1: Operationalization of Variables (financial performance measures) Dependent variable

|  |  |  |
| --- | --- | --- |
| Variable | Measurement | Source |
| Return on Equity (ROE) | ROE is equal to a fiscal year’s net income (after preferred stock dividends but before common stock dividends) divided by total equity (excluding preferred shares), expressed as a percentage. | Waddock and Grave (1997) Preston and O’Bannon (1997); Bowmwan and Haire (1975); Bregdon and Marlin (1972); Perket and Eilbirt (1975); Spicer (1978); Preston (1978); Cowen et al. (1987); Reily and Brown (2012); Traub (2001); Chienjien  (2010); Uadiale (2010. |
| Return on Assets (ROA) | ROA is equal to a fiscal year’s net income (after preferred stock dividends but before common stock dividends) divided by total assets | McWilliams and Siegel (2001) Lucey, Barber and Hillman (2001); Aupperle, Carroll and Hatfield (1985); Belkaoui and Karpik (1989), Waddock and Grave (1997) Preston and O’Bannon (1997); Hongren, Harrison and Oliver (2009); Alexandri and Anjani (2014);  Kyereboah-Coleman (2007. |
| Earnings per Share (EPS) | Earnings after interest and taxes divided by total ordinary shares. Also known as price earnings ratio, it is  measured by the stock price. | Tendelilin (2010); Azhar, Osman and Prinduri (2009); Chisholm (2009); Gottwald (2011) |
| Share Price (SP) | Share price or stock price is measured by price earnings ratio | Azhar, Osman And Parinduri (2009); Chisholm (2009);  Gottwald (2011); Capozzi (2010);  Mauboussin (2012); Gosh (2010); Mulford & Comiskey (2011) |

Source: Researcher’s compilation, 2019

# Table 3.2: Operationalization of Variables (corporate social responsibility measures) Independent variable and Control variables

|  |  |  |
| --- | --- | --- |
| Variable | Measurement | Source |
| Corporate social responsibility disclosure on employment of  indigenous staff (CSRDEIS) | This is the ratio of number of indigenous staff employed by the firm to the total number of staff in the firm. | Financial Statements/ Annual Report and Accounts of the companies (1997 – 2018); Owolabi  (2010) Cormier (2004) and Ismail and Ibrahim (2009). |
| Corporate social responsibility disclosure on gifts and donations  (CSRDGD) | This is the amount of gifts and donations by the firm expressed in monetary terms. |
| Corporate social responsibility disclosure on environmental activities (CSRDEA) | The total number of activities carried out by the firm to nurture and protect the environment  expressed in monetary terms. |
|  | **Control Variables** |  |
| LEV (Leverage) | This is expressed as Debt to equity ratio | Investopedia (2019) |
| FSIZE (Firm size) | This is expressed as Natural logarithm of total assets | Bonga (2015); Dada, Malomo and Ojediran  (2015); and Anderson, Mansi and Reeb (2004). |

Source: Researcher’s compilation, 2019

# CHAPTER FOUR PRESENTATION AND ANALYSIS OF DATA

# 4.1. Introduction

This chapter contains the presentation, analysis and interpretation of the data collected for this research study. Consequently, it entails the application of both mathematical and statistical techniques to provide the basis for the testing of the research hypotheses. Hence, it is a vital part of any research study, since it forms the basis for recommendation and conclusions at the end of the research. The models specified in the previous chapter are examined empirically. The preliminary analysis of the data is first conducted (descriptive and correlation analysis). Thereafter, the regression analysis is conducted. The results are presented and interpreted below. The study data is on Appendix I.

# Presentation and Analysis of Data

This section examined the presentation and analysis of the estimations conducted using the various statistical methods. The preliminary analysis was first examined and then, we discussed the descriptive statistics results and the Pearson product moment correlation results while the variance inflation factor test for multicollinearity was also examined. After that, the test for endogeneity regression was conducted. The results were presented and analysed below;

# Preliminary Analysis

Table 4.1: Descriptive Statistics

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Mean | Max | Min | Std. Dev. | Jarque-Bera | Prob |
| SP | 34.48802 | 1555.99 | 0.5 | 115.0286 | 183895.3 | 0.000 |
| CSRD-GD | 0.911765 | 1 | 0 | 0.283869 | 1914.201 | 0.000 |
| CSRD-EIS | 0.985294 | 1 | 0 | 0.120471 | 107889 | 0.000 |
| CSRD-EA | 0.181373 | 1 | 0 | 0.385642 | 292.7556 | 0.000 |
| LEV | 0.586373 | 2.03 | 0 | 0.236074 | 492.81 | 0.000 |
| FSIZE | 7.059722 | 9.22 | 5.09 | 0.781306 | 7.541791 | 0.023 |
| ROE | 0.239651 | 2.5496 | 0.04 | 0.283278 | 2265.714 | 0.000 |
| EPS | 0.61732 | 2.01 | 0.03 | 0.226255 | 442.958 | 0.000 |
| ROA | 0.493801 | 2.966 | 0.006 | 0.302815 | 1856.99 | 0.000 |

Source: Researcher’s compilation (2019) using Eviews 10.0.

Table 4.1 showed the descriptive statistics for the variables and as observed, the mean for the share price was 34.488, with a standard deviation of 115.02 which was high and suggested the presence of volatility in the share price behaviour of the distribution of companies. The price of the shares ranged from the minimum of 0.5 to a maximum of 1555.99. The maximum and minimum values stood at 2.549 and 0 respectively. The mean for CSRD-GD, had a value of 0.911 which suggested that about 91% of the firms in the distribution engaged in community development, gifts and donation activities with a standard deviation of 0.2838. In terms of CSRD-EIS, the mean was 0.985 and it implied that about 99% of the listed companies engaged in disclosures concerning activities related to employment of indigenous staff. In relation to CSRD-EA, the mean for the distribution was 0.1813 which implied that a very small number of firms, about 18.13% in the distribution, disclosed on environmental activities. The mean for ROE was 0.2396 with a standard deviation of 0.282. EPS had a mean value of 0.617 with a standard deviation of

0.226. The mean for firm size (FSIZE) as measured using the log of total assets was 7.057, with a standard deviation of 0.781. The average value for leverage (LEV) was 0.586, with a standard deviation of 0.236.

Table 4.2. Variance Inflation Factor Test

|  |  |
| --- | --- |
| **Variable** | **VIF** |
| CSRD-GD | 1.708008 |
| CSRD-EIS | 3.133199 |
| CSRD-EA | 2.207941 |
| FSIZE | 2.144613 |
| LEV | 1.619738 |

Source: Researcher’s compilation (2019) using Eviews 10.0.

Multicollinearity among the independent variables implied that they were perfectly correlated. If there existed a perfect correlation between the independent variables, the parameter coefficients would be indeterminate. In the presence of multicollinearity, there would be large standard errors of the estimated coefficients. In this study, the variance inflation factor test was constructed to test for multicollinearity. The variance inflation factor (VIF) explained how much of the variance of a coefficient estimate of a regressor had been inflated as a result of collinearity with the other regressors. Essentially, VIFs above 10 are seen as a cause of concern. As observed, none of the variables had VIF’s values more than 10 and hence, none gave any serious indication of multicollinearity.

Table 4.3: Pearson Correlation

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | CSRD- EA | CSRD-EIS | CSRD- GD | ROE | ROA | SP | LEV | FSIZE | EPS |
| CSRD-EA | 1 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| CSRD-EIS | 0.0597 | 1 |  |  |  |  |  |  |  |
| p-value | 0.137 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| CSRD-GD | 0.0273 | 0.0501 | 1 |  |  |  |  |  |  |
| p-value | 0.497 | 0.2127 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| ROE | 0.0418 | -0.0123 | -0.03887 | 1 |  |  |  |  |  |
| p-value | 0.2979 | 0.7605 | 0.3339 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| ROA | -0.04775 | 0.0504 | 0.06521 | -0.0396 | 1 |  |  |  |  |
| p-value | 0.2352 | 0.2093 | 0.1048 | 0.324 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| SP | 0.2761\* | 0.0330 | 0.07213\*\* | -0.1212\* | -0.00536 | 1 |  |  |  |
| p-value | 0.000 | 0.4114 | 0.0727 | 0.0025 | 0.8941 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| LEV | 0.0061 | 0.0359 | -0.01237 | -0.0178 | -0.01167 | 0.073505 | 1 |  |  |
| p-value | 0.8781 | 0.3711 | 0.7586 | 0.6581 | 0.7719 | 0.0674 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| FSIZE | 0.2279\* | 0.1189\* | 0.027492 | -0.157\* | 0.050545 | 0.3331\* | 0.1053\* | 1 |  |
| p-value | 0.000 | 0.003 | 0.4944 | 0.0001 | 0.2088 | 0.000 | 0.0087 |  |  |
|  |  |  |  |  |  |  |  |  |  |
| EPS | -0.0288 | 0.1356\* | 0.0625 | -0.0405 | -0.01397 | -0.0667\*\* | 0.017003 | 0.016993 | 1 |
| p-value | 0.4746 | 0.0007 | 0.12 | 0.3136 | 0.7285 | 0.0973 | 0.6726 | 0.6728 |  |

Source: Researcher’s compilation (2019) using Eviews 10.0

The Pearson correlation result examined the relationship between CSR disclosure and corporate financial performance measures. Particularly, the Pearson correlation statistic was employed in the study. The results showed that CSRD-EA was positively correlated with ROE (r= 0.0418) although not significant at 5% (p=0.2979) and negatively correlated with ROA (r=-0.04775) although not significant at 5% (p=0.2352). In addition, CSRD-EA was positively correlated with SP (r=0.2761) and was significant at 5% (p=0.000), and negatively correlated with EPS (-0.0288) although not significant at 5% (p=0.4746). The results showed that CSRD-EIS was negatively correlated with ROE (r=- 0.0123) although it was not significant at 5% (p=0.7605), positively correlated with ROA

(r=0.0504) although was not significant at 5% (p=0.2093). Furthermore, CSRD-EIS positively correlated with SP (r=0.0330) but was insignificant at 5% (p=0.4114), and positively correlated with EPS (r=0.11356) and was significant at 5% (p=0.000). The correlation results showed that CSRD-GD negatively correlated with ROE (r= -0.03887) although was not significant at 5% (p=0.3339), and positively correlated with ROA (r= 0.0652) although was not significant at 5% (p=0.12). In addition, CSRD-GD positively correlated with SP (r=0.07213) and was significant at 10% (p=0.0727), and positively correlated with EPS (0.0625) and was not significant at 5% (p=0.4746). The correlation analysis provided an insight into the direction and degree of the relationship between the variables. However, it was limited in its inferential capacity as it did necessarily imply functional dependence between the variables. Regression estimations were more suited for this purpose.

# Test for Endogeneity in CSRD-FP Relationship

The testing for endogeneity between CSRD and corporate financial performance was premised on the findings from extant literatures which revealed two shades of opinion on corporate social responsibility and financial performance studies. First is the impact of corporate social responsibility on financial performance (Ismail & Adegbemi, 2013; Rapti & Medda, 2012; Tilakasiri, 2012) and the impact of financial performance on corporate social responsibility (Hirigoyen & Poulain-Rehm, 2015; Ilaboya & Omoye, 2013; Makni, Francoeur & Bellavance, 2009). These two shades of studies have thrown up arguments in recent times on the presence of endogeneity arising from potential reverse-causality between CSRD and financial performance estimation. In the presence of endogeneity, the parameter estimates tend to be biased due to the relationship in the residuals. Therefore, aside depending on aprori facts on the issue, the study proceeded to test for the presence of endogeneity.

Table 4.4. CSRD and Corporate financial performance Endogeneity Test Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Variable*** | **Aprori Sign** | CSRD dimensions | | |
| EA  Endogeneity Test | GD  Endogeneity Test | EIS  Endogeneity Test |
| *C* |  | -422.2478 | -160.5912 | -251.135 |
|  | (153.1561) | (25.5399) | (50.8239) |
|  | {0.0060) | {0.000} | {0.000} |
| *CSRD-EA* |  | -229.937 | -0.4493 | -1.73116 |
|  | + | (231.510) | (3.6131) | (0.59742) |
|  |  | {0.3211} | {0.9011} | {0.0039} |
| *CSRD-GD* |  | 11.6009 | -2884.33 | -2.3963 |
|  | + | (9.4894) | (456.82) | (1.4853) |
|  |  | {0.2220} | {0.000} | {0.1073} |
| *CSRD-EIS* |  | 47.8914\* | 35.4089 | 146.615 |
|  | + | (14.1668) | (11.2869) | (46.335) |
|  |  | {0.0008} | {0.0018} | {0.0016} |
| *FSIZE* |  | 62.2256\* | 391.653 | -24.6471\* |
|  | + | (24.7199) | (55.5886) | (-15.873) |
|  |  | {0.0121} | {0.000} | {0.0000} |
| *CSRD-EA-Residual* |  | 230.723 |  |  |
|  | (235.298) |
|  | {0.3272} |
| *CSRD-GD-Residual* |  |  | 2887.079\* |  |
|  | (457.377) |
|  | {0.000} |
| *CSRD-EIS-Residual* |  |  |  | -129.342 |
|  | (42.3644) |
|  | {0.0024} |
| *Model Parameters* | | | | |
| R2 |  | 0.8424 | 0.0739 | 0.781 |
| Adjusted R2 |  | 0.8111 | 0.066 | 0.746 |
| F-statistic |  | 26.862 | 9.929 | 22.4422 |
| Prob(F-stat) |  | 0.000 | 0.00 | 0.000 |

Source: Researcher’s Compilation (2019) using Eviews 10.0. \* sig at 5%, \*\* sig at 10%

Here, the form for CSRD variables was estimated by regressing them on *all* exogenous variables including those in the structural equation. Then the residuals, (res) were obtained, and following that, the residuals were included in the structural equation and test for significance of “res” in OLS regression. If the coefficient on “res” was statistically

different from zero, we concluded that CSRD was indeed endogenous. From the results in table 4.4, CSRD-EA residual was not significant at 5% (p=0.3272), CSRD-GD-residual was significant (p=0.000) and CSRD-EIS-residual was also significant at 5% (p=0.0024). Hence, the study concluded that from the CSRD structure components, CSRD-GD and CSRD-EIS were endogenous with financial performance. Consequently, the study, aside from estimating the panel regression, also estimated the more robust Arrelano and Bond GMM regression to address the presence of endogeneity. The results were presented below;

# Regression Analysis

The regression analysis was conducted to identify the relationship between the dependent and independent variables, provide the relevant statistics for assessing the performance of the specified model in the previous chapter, and test the hypotheses raised in the study. The panel regression estimation was employed in this study and the fixed and random effects estimates were presented and based on the hausman test, while the suitable estimates were selected and utilized in the inferential analysis. Though panel effect models mainly control for unobserved heterogeneity, they do not account for the endogeneity problem (Cameron & Trivedi 2005). Therefore, in order to then address the endogeneity as shown in table 4.4, the Arellano and Bond (1991) GMM estimator which controls for potential endogeneity problem was also employed and thus provided a more robust estimation parameter. The results and analysis were presented below:

Table 4.5. CSRD and Share Price Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Variable*** | **Aprori Sign** | FE  estimates | RE  estimates | Arrelano and Bond GMM  estimates |
| *C* |  | -178.47\* | -255.59\* | -127.0343 |
|  | (9.699) | (46.590) | (19.486) |
|  | {0.000) | {0.000} | {0.000} |
| *CSRD-GD* |  | 2.1591 | 3.7832 | 17.5513 |
|  | + | (0.5609) | (8.4226) | (9.2354) |
|  |  | {0.000} | {0.6535} | {0.0580} |
| *CSRD-EA* |  | -1.5786 | 16.19473 | 85.1088\* |
|  | + | (2.4748) | (20.8567) | (12.5502) |
|  |  | {0.5239} | {0.4378} | {0.000} |
| *CSRD-EIS* |  | 2.1896\* | 9.8775 | -25.8445\* |
|  | + | (1.283) | (6.1364) | (4.41664) |
|  |  | {0.088} | {0.1080} | {0.000} |
| *LEV* |  | 4.7501\* | 5.6542 | 21.1603\* |
|  | + | (0.7864) | (13.0538) | (10.2831) |
|  |  | {0.000} | {0.6651} | {0.0402} |
| *FSIZE* |  | 29.907\* | 37.9588\* | 18.41752\* |
|  | + | (1.3218) | (5.9718) | (2.3896) |
|  |  | {0.000} | {0.000} | {0.0000} |
| *Model Parameters* | | | | |
| R2 |  | 0.6424 | 0.0739 | 0.2976 |
| Adjusted R2 |  | 0.6111 | 0.066 | 0.2896 |
| F-statistic |  | 26.862 | 9.929 |  |
| Prob(F-stat) |  | 0.000 | 0.00 |  |
| Durbin-Watson |  | 1.7 | 1.926 |  |
| *Model Diagnostics* | | | | |
| Hausman | 0.042 | | | |
| Ramsey Reset test |  | 0.425 |  |  |
| Period Hetero.Test |  | 0.209 |  |  |
| Cross-section Hetero.Test |  | 0.120 |  |  |
| Pesaran CD for serial correlation |  | 0.106 |  |  |
| Instrument Rank |  |  |  | 10 |
| j-statistics |  |  |  | 5.8395 |
| Prob-j-stat |  |  |  | 0.21146 |
| AR(1) |  |  |  | 0.0491 |
| AR(2) |  |  |  | 0.8165 |

Source: Researcher’s compilation (2019) using Eviews 10.0. \* sig @ 5%, \*\*sig@10%

Table 4.5 showed the regression results which examined the impact of CSR disclosures on SP. The Hausman test statistic p-value = 0.042 indicated that the FE was the preferred model to the random effects and hence, the FE estimation results were reported for the analysis in the study. Furthermore, the study attempted to model a dynamic relationship between share price and CSR disclosures. The white adjusted standard errors were employed to control for potential heteroskedasticity in the estimation and hence, the estimation results were free from heteroskedasticity. Both panel period heteroskedasticity [p=0.209] and cross-sectional heteroskedasticity [p=0.120] were examined and the estimations were found to be free from such. The Peseran cross- dependence test [p=0.106] was employed to confirm the threat of the serial correlation in the errors and the statistic revealed the absence of cross-section dependence in the residuals. The FE estimates showed that R2 was 0.6424 with a degree of freedom adjusted the R2 of 61.1%. The F-stat was 26.862 (p-value = 0.00) significant at 5% and suggested that the hypothesis of a significant linear relationship between the dependent and independent variables could not be rejected. It was also indicative of the joint statistical significance of the model.

The analysis of coefficients revealed CSRD-GD had a positive (2.1591) effect on SP and was statistically significant at 5% (p=0.000). CSRD-EA impact on SP was not significant at 5% although with a negative (-1.5786) coefficient. CSRD-EIS had a positive (2.1896) impact on SP and was statistically significant (p=0.088) at 10%. Looking at the control variables, FSIZE had a positive beta (29.907) and a statistically significant (p=0.000). LEV also showed a positive coefficient (4.7501) and was significant at 5%. . The Arrelano and Bond estimation results revealed that CSRD-GD had a positive (17.5513) significant effect (p=0.058) on SP at 10%, CSRD-EIS had a negative impact (- 25.8445) on SP which was significant (p=0.000) at 5% and CSRD-EA had a positive beta

(85.1088) and significant (p=0.000) at 5%. One point to be emphasised for the GMM estimation results was the J-stat test of over-identifying restrictions and the Arellano-Bond test for autocorrelation error. The J-stat tests yielded all *p*-values above 0.10, which meant that a null hypothesis could not be rejected. Hence, over identification restrictions were valid. The AR(1) tests indicated that the residuals in first differences correlated as expected, while the AR(2) tests gave *p*-values above 0.10, which meant that a null hypothesis of no second-order serial correlation could not be rejected. Therefore, all results of the GMM model were valid. The Ramsey Reset Test for model specification confirmed the absence of misspecification errors [p=0.425].

Table 4.6. Quantile process Estimates for CSRD and Share Price Regression

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Quantile | Coefficient | Std. Error | t-Statistic | Prob. |
| CSRD-EA | 0.1 | 0.711662 | 1.039489 | 0.684627 | 0.4938 |
|  | 0.2 | 1.868677 | 1.254911 | 1.489091 | 0.137 |
|  | 0.3 | 4.3636 | 1.618583 | 2.695938 | 0.0072\* |
|  | 0.4 | 10.69988 | 3.776289 | 2.833438 | 0.0048\* |
|  | 0.5 | 19.32703 | 7.641811 | 2.529116 | 0.0117\* |
|  | 0.6 | 24.58955 | 5.995698 | 4.101199 | 0.000\* |
| 0.7 | 29.15904 | 8.050913 | 3.62183 | 0.0003\* |
| 0.8 | 39.75388 | 19.63272 | 2. 024879 | 0.0433\* |
| 0.9 | 51.67891 | 38.40637 | 1.345582 | 0.1789 |
| CSRD-GD | 0.1 | 0.080749 | 0.641452 | 0.125884 | 0.8999 |
|  | 0.2 | 0.18418 | 0.822728 | 0.223865 | 0.8229 |
|  | 0.3 | 0.413253 | 1.00641 | 0.410621 | 0.6815 |
|  | 0.4 | -0.07085 | 1.178422 | -0.06012 | 0.9521 |
|  | 0.5 | 0.671718 | 1.522346 | 0.441239 | 0.6592 |
|  | 0.6 | 0.918114 | 1.952841 | 0.470143 | 0.6384 |
| 0.7 | 4.772342 | 2.931457 | 1.627976 | 0.104 |
| 0.8 | 11.40213 | 4.370402 | 2.608942 | 0.0093\* |
| 0.9 | 25.34827 | 9.859555 | 2.570934 | 0.0104\* |
| CSRD-EIS | 0.1 | -0.4732 | 1.594758 | -0.29672 | 0.7668 |
|  | 0.2 | -3.44285 | 2.083494 | -1.65244 | 0.0989\*\* |
|  | 0.3 | -8.36666 | 4.227951 | -1.97889 | 0.0483\* |
|  | 0.4 | -15.9134 | 5.430406 | -2.93043 | 0.0035\* |
|  | 0.5 | -28.6178 | 12.93349 | -2.21269 | 0.0273\* |
|  | 0.6 | -50.0291 | 16.74466 | -2.98776 | 0.0029\* |
| 0.7 | -94.5807 | 21.40883 | -4.41783 | 0.000\* |
| 0.8 | -134.183 | 30.31529 | -4.42624 | 0.000\* |
|  | 0.9 | -258.944 | 66.96797 | -3.86669 | 0.0001 |
| LEV | 0.1 | -0.02037 | 0.77312 | -0.02635 | 0.979 |
|  | 0.2 | -0.08539 | 0.98012 | -0.08712 | 0.9306 |
|  | 0.3 | -0.31951 | 1.098158 | -0.29095 | 0.7712 |
|  | 0.4 | -0.6494 | 1.236198 | -0.52532 | 0.5995 |
|  | 0.5 | -1.91268 | 1.421401 | -1.34563 | 0.1789 |
|  | 0.6 | -2.19533 | 1.590736 | -1.38007 | 0.1681 |
| 0.7 | -2.33355 | 2.757069 | -0.84639 | 0.3977 |
| 0.8 | 10.67984 | 9.508423 | 1.123197 | 0.2618 |
| 0.9 | 28.89007 | 16.7931 | 1.720354 | 0.0859 |
| FSIZE | 0.1  0.2 | 0.135826  0.632559 | 0.251614  0.32502 | 0.539819  1.946217 | 0.5895  0.0521 |
|  | 0.3 | 1.4967 | 0.611922 | 2.445898 | 0.0147 |
|  | 0.4 | 2.854588 | 0.785162 | 3.635667 | 0.0003 |
|  | 0.5 | 4.953698 | 1.885291 | 2.627551 | 0.0088 |
|  | 0.6 | 8.45409 | 2.433158 | 3.474534 | 0.0005 |
| 0.7 | 15.34608 | 3.021663 | 5.078687 | 0.000 |
| 0.8 | 20.76521 | 4.353401 | 4.769883 | 0.000 |
| 0.9 | 39.71889 | 9.29474 | 4.273265 | 0.000 |

Source: Researcher’s compilation (2019) using Eviews 10.0.

Table 4.6 showed a significant positive relationship between CSRD-EA and SP; a positive significant relationship between CSRD-GD and SP, and also a significant positive relationship between CSRD-EIS and SP at 5%.

The usefulness of the quantile regression technique is unlike that of the panel regression which does not show the effect of an independent variable on different levels of the dependent but is regarded as a mean regression. The quantile regression parameter estimates the change in a specified quantile of the response variable. The conditional quantile regression traces the entire distribution of the independent variable, conditional on a set of categories for the dependent variable. As observed, the distributional dynamics for SP highlighted that the effect of CSRD-EA was significant at 5% for firms at high levels above average financial performance at Q[0.3.] and Q[0.4]. The effect of CSRD- EA was also significant at 5% for firms at average levels of financial performance Q[0.5] and even below average levels Q[0.6], Q[0.7] and Q[0.8]. The findings thus highlighted that the effect of environmental activities on share price could not necessarily be a function of the share price levels.

Therefore, whether firms have relative high, average or low share prices, the effect of CSRD-EA on SP is persistent. For CSRD-GD, the quantile estimates highlight that for firms at below average share price level (Q[0.8.] and Q[0.9]) for the distribution, the relationship with CSRD-GD is strongest. This may suggest that CSRD has stronger positive effects on SP for firms in the below distribution average SP. For CSRD-EIS, the outcome is similar to that of CSRD-EA. As observed, the distributional dynamics for SP highlighted that the effect of CSRD-EIS was significant at 5% for firms at high levels above average financial performance at Q[0.3.] and Q[0.4]. The effect of CSRD-EA was also significant at 5% for firms at average levels of financial performance Q[0.5] and even below average levels Q[0.6], Q[0.7] and Q[0.8]. The findings thus highlighted that the

effect of employment of indigenous staff on share price could not necessarily be a function of the share price levels. Therefore, whether firms had relative high, average or low share prices, the effect of CSRD-EIS on SP was persistent.

Table 4.7. CSRD and ROA Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Variable*** | **Aprori Sign** | FE  estimates | RE  estimates | GMM  Estimates |
| *C* |  | 0.41592\* (0.07241)  {0.000) | 0.4566\* (0.4536)  {0.0023} | -0.80587\* (0.09233)  {0.000} |
| *GD* | + | -0.01892  (0.0152)  {0.2145} | 0.04535  (0.03279)  {0.1672} | 0.1463\* (0.0117)  {0.000} |
| *EIS* | + | -0.0776  (0.0525)  {0.1399} | 0.03199  (0.1004)  {0.7501} | 0.6625\* (0.0476)  {0.000} |
| *EA* | + | 0.02516\* (0.0112)  {0.0251} | 0.0030  (0.0107)  {0.7772} | -0.2769\* (0.0416)  {0.000} |
| *LEV* | + | -0.0105  (0.0065)  {0.1063} | -0.01603  (0.0270)  {0.5540} | -0.0026  (0.0333)  {0.9378} |
| *FSIZE* | + | 0.0075  (0.0071)  {0.2928} | -0.0039  (0.0177)  {0.8263} | 0.0758\* (0.0187)  {0.0001} |
| *Model Parameters* | | | | |
| R2 |  | 0.6936 | 0.0734 | 0.358 |
| Adjusted R2 |  | 0.6901 | 0.066 | 0.112 |
| F-statistic |  | 195.12 | 9.895 |  |
| Prob(F-stat) |  | 0.000 | 0.00 | 0.000 |
| Durbin-Watson |  | 2.1 | 1.97 | 2.071 |
| *Model Diagnostics* | | | | |
| Hausman | 0.006 | | | |
| Ramsey Reset test |  | 0.410 |  |  |
| Period Hetero.Test |  | 0.81 |  |  |
| Cross-section Hetero.Test |  | 0.431 |  |  |
| Pesaran CD for serial correlation |  | 0.571 |  |  |
| Instrument Rank |  |  |  | 8 |
| j-statistics |  |  |  | 3.0344 |
| Prob-j-stat |  |  |  | 0.2193 |
| AR(1) |  |  |  | 0.0023 |
| AR(2) |  |  |  | 0.274 |

Source: Researcher’s compilation (2019) using Eviews 10.0. \* sig @ 5%, \*\*sig@10%

Table 4.7 showed the regression results which examined the impact of CSRD on Return on assets (ROA). From the Hausman test statistic p-value = 0.006, the FE was the preferred model estimate between the fixed and random effect estimations. However, to

address the presence of potential endogeneity bias in GD and EIS dimensions of CSRD, the generalized method of moments (GMM) estimator was also utilized. For statistical precaution, the white adjusted standard errors were employed to control for potential heteroskedasticity in the estimation and hence, the estimation results were free from heteroskedasticity. Both panel period heteroskedasticity [p=0.81] and cross-sectional heteroskedasticity [p=0.431] were examined and the estimations were found to be free from such. The Peseran cross-dependence test [p=0.571] was employed to confirm the threat of the serial correlation in the errors and the statistic revealed the absence of cross- section dependence in the residuals. The FE estimates showed that R2 was 0.6936 with a degree of freedom adjusted the R2 of 0.6901 which explained the extent to which the explanatory variables were able to account for systematic variations in the dependent variables. The F-stat was 195.12 (p-value = 0.00) significant at 5% and suggested that the hypothesis of a significant linear relationship between the dependent and independent variables could not be rejected. It was also indicative of the joint statistical significance of the model.

The analysis of coefficients revealed that CSRD-GD dimension had a negative (- 0.01892) effect on ROA although it was not statistically significant at 5% (p=0.2145). Employment of indigenous staff (CSRD-EIS) related disclosures had a negative (-0.0776) impact on ROA although not also significant (p=0.1399) at 5%. Environmental activities dimension (CSRD-EA) had a positive (0.0251) impact on ROA and was also significant (p=0.0251) at 5%. Looking at the control variables, none of FSIZE and LEV showed any statistical significance in their effects. Although the FE models mainly controlled for unobserved heterogeneity, they did not account for the endogeneity problem (Cameron & Trivedi 2005). To deal with the issue the Arellano and Bond (1991) GMM estimator controlled for potential endogeneity problem. The Arrelano and Bond estimation results

showed a substantial difference from the FE estimations with stronger beta’s thus confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that CSRD- GD had a positive (0.1463) significant effect (p=0.000) on ROA, CSRD-EIS had a positive impact (0.6625) on ROA which was significant (p=0.00) at 5% and CSRD-EA had a negative beta (-0.2769) and was significant (p=0.000) at 5%. The J-stat test of over- identifying restrictions and the Arellano-Bond test for autocorrelation error were examined. The J-stat tests yielded all *p*-values above 0.10, which meant that a null hypothesis could not be rejected. Hence, over identification restrictions were valid. The AR(1) tests indicated that the residuals in first differences correlated as expected, while the AR(2) tests gave *p*-values above 0.10, which meant that a null hypothesis of no second- order serial correlation could not be rejected. Therefore, all results of the GMM model were valid.

Table 4.8. Quantile process Estimates for CSRD and ROA Regression

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Quantile | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.100 | 0.001473 | 0.055984 | 0.026309 | 0.9790 |
|  | 0.200 | 0.013331 | 0.074827 | 0.178155 | 0.8587 |
|  | 0.300 | 0.047358 | 0.089860 | 0.527019 | 0.5984 |
|  | 0.400 | 0.154592 | 0.104885 | 1.473920 | 0.1410 |
|  | 0.500 | 0.586947 | 0.181413 | 3.235418 | 0.0013\* |
|  | 0.600 | 1.298439 | 0.211269 | 6.145900 | 0.0000\* |
|  | 0.700 | 1.476538 | 0.170457 | 8.662215 | 0.0000\* |
|  | 0.800 | 1.213097 | 0.187863 | 6.457336 | 0.0000\* |
|  | 0.900 | 1.139201 | 0.263177 | 4.328642 | 0.0000\* |
| CSRD-GD | 0.100 | -0.000594 | 0.021596 | -0.027485 | 0.9781 |
|  | 0.200 | -0.008180 | 0.028200 | -0.290063 | 0.7719 |
|  | 0.300 | -0.027545 | 0.033327 | -0.826494 | 0.4088 |
|  | 0.400 | -0.072562 | 0.040898 | -1.774202 | 0.0765\*\* |
|  | 0.500 | -0.093951 | 0.049405 | -1.901655 | 0.0577\*\* |
|  | 0.600 | -0.002486 | 0.051491 | -0.048283 | 0.9615 |
|  | 0.700 | 0.030228 | 0.043875 | 0.688944 | 0.4911 |
|  | 0.800 | 0.045817 | 0.047141 | 0.971903 | 0.3315 |
|  | 0.900 | 0.126026 | 0.055746 | 2.260728 | 0.0241\* |
| CSRD-EIS | 0.100 | 0.000307 | 0.040813 | 0.007527 | 0.9940 |
|  | 0.200 | 0.003814 | 0.055310 | 0.068949 | 0.9451 |
|  | 0.300 | 0.011034 | 0.067638 | 0.163126 | 0.8705 |
|  | 0.400 | 0.055458 | 0.077245 | 0.717956 | 0.4731 |
|  | 0.500 | -0.069898 | 0.150602 | -0.464122 | 0.6427 |
|  | 0.600 | -0.115949 | 0.127369 | -0.910339 | 0.3630 |
|  | 0.700 | -0.070929 | 0.099006 | -0.716413 | 0.4740 |
|  | 0.800 | -0.026141 | 0.076905 | -0.339914 | 0.7340 |
|  | 0.900 | -0.007405 | 0.077271 | -0.095831 | 0.9237 |
| CSRD-EA | 0.100 | 0.000149 | 0.013447 | 0.011084 | 0.9912 |
|  | 0.200 | -0.001100 | 0.018076 | -0.060866 | 0.9515 |
|  | 0.300 | 0.002217 | 0.021750 | 0.101924 | 0.9188 |
|  | 0.400 | -0.001432 | 0.025279 | -0.056636 | 0.9549 |
|  | 0.500 | 0.024300 | 0.035921 | 0.676499 | 0.4990 |
|  | 0.600 | 0.049922 | 0.043829 | 1.139026 | 0.2551 |
|  | 0.700 | 0.042747 | 0.038426 | 1.112450 | 0.2664 |
|  | 0.800 | 0.037938 | 0.045533 | 0.833205 | 0.4050 |
|  | 0.900 | 0.108476 | 0.077878 | 1.392891 | 0.1642 |
| LEV | 0.100 | 0.001148 | 0.034141 | 0.033640 | 0.9732 |
|  | 0.200 | 0.013824 | 0.045228 | 0.305660 | 0.7600 |
|  | 0.300 | 0.026957 | 0.053770 | 0.501341 | 0.6163 |
|  | 0.400 | 0.094190 | 0.056266 | 1.674007 | 0.0946 |
|  | 0.500 | 0.116690 | 0.060419 | 1.931360 | 0.0539 |
|  | 0.600 | 0.066988 | 0.055558 | 1.205732 | 0.2284 |
|  | 0.700 | 0.001524 | 0.043569 | 0.034973 | 0.9721 |
|  | 0.800 | 0.004088 | 0.044647 | 0.091571 | 0.9271 |
|  | 0.900 | -0.049097 | 0.059015 | -0.831927 | 0.4058 |
| FSIZE | 0.100 | -0.000191 | 0.006429 | -0.029646 | 0.9764 |
|  | 0.200 | -0.001818 | 0.008543 | -0.212764 | 0.8316 |
|  | 0.300 | -0.005295 | 0.010162 | -0.521035 | 0.6025 |
|  | 0.400 | -0.020507 | 0.011945 | -1.716740 | 0.0865 |
|  | 0.500 | -0.052711 | 0.021015 | -2.508322 | 0.0124 |
|  | 0.600 | -0.133342 | 0.021282 | -6.265492 | 0.0000\* |
|  | 0.700 | -0.150271 | 0.018162 | -8.273778 | 0.0000\* |
|  | 0.800 | -0.109370 | 0.023041 | -4.746788 | 0.0000\* |
|  | 0900 | -0.089681 | 0.032697 | -2.742757 | 0.0063\* |

Source: Researcher’s compilation (2019) using Eviews 10.0. \* sig @ 5%, \*\*sig@10%

Table 4.8 showed that CSRD-GD had a significant positive relationship with ROA at 5%. However, for CSRD-EIS and CSR-EA, there was no significant performance region which implied that either of them having an effect on performance, was indifferent to performance levels.

Employing quantile estimation, the study probed further into examining distributional dynamics in the behaviour of corporate social responsibility disclosure in relation to corporate financial performance at different levels of financial performance. The usefulness of the quantile regression technique is that the conditional quantile regression traces the entire distribution of the independent variable, conditional on a set of categories for the dependent variable.

The quantile estimates are relevant in providing an understanding and insight particularly, regarding any financial performance thresholds that must be met before CSR activities become significantly relevant. As observed, the distributional dynamics for ROA highlighted that the effect of CSRD-GD was significant at 5% for firms at low levels of financial performance at Q[0.9.] and significant at 5% for firms at above average levels of financial performance Q[0.4], Q[0.5]. For CSRD-EIS and CSRD-EA, the quantile estimates failed to highlight any significant financial performance region for which CSRD-EIS and CSR-EA would be significant. It suggested that either CSRD-EIS or CSRD-EA effects on financial performance was indifferent to the performance levels or the effect was generally weak for all performance quantiles.

Table 4.9. CSRD and ROE Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Variable*** | Aprori Sign | FE  estimates | RE  estimates | GMM  Estimates |
| *C* |  | 0.26889\* | 0.5455\* | 0.33201\* |
|  | (0.0173) | (0.1134) | (0.1139) |
|  | {0.0000) | {0.000} | {0.0039) |
| *CSRD-GD* |  | -0.02605\* | -0.0693 | 0.22573\* |
|  | + | (0.0099) | (0.0500) | (0.0282) |
|  |  | {0.0089} | {0.1666} | {0.0000} |
| *CSRD-EIS* |  | 0.02714 | 0.00632 | 0.2318\* |
|  | + | (0.01856) | (0.0554) | (0.0326) |
|  |  | {0.1443} | {0.9091} | {0.0013} |
| *CSRD-EA* |  | 0.02226\* | 0.07414\*\* | 0.1061\* |
|  | + | (0.0097) | (0.0408) | (0.0326) |
|  |  | {0.0221} | {0.0696} | {0.0013} |
| *LEV* |  | -0.00486 | 0.00208 | 0.04811\* |
|  | + | (0.00354) | (0.02327) | (0.0433) |
|  |  | {0.1706} | {0.9288} | {0.2682} |
| *FSIZE* |  | -0.0042\* | -0.03699\* | -0.0837\* |
|  | + | (0.00117) | (0.01360) | (0.008) |
|  |  | {0.0003} | {0.0067} | {0.000} |
| *AR(1)* |  | 0.1273\* | -0.0693 | 0.22573\* |
|  | + | (0.0467) | (0.0500) | (0.0282) |
|  |  | {0.0066} | {0.1666} | {0.0000} |
| *Model Parameters* | | | | |
| R2 |  | 0.669 | 0.0238 | 0.537 |
| Adjusted R2 |  | 0.663 | 0.0159 | 0.5215 |
| F-statistic |  | 161.852 | 3.0318 |  |
| Prob(F-stat) |  | 0.000 | 0.0103 |  |
| Durbin-Watson |  | 1.9 | 1.46 |  |
| *Model Diagnostics* | | | | |
| Hausman | 0.0119 | | | |
| Ramsey Reset test |  | 0.04 |  |  |
| Period Hetero.Test |  | 0.738 |  |  |
| Cross-section Hetero.Test |  | 0.265 |  |  |
| Pesaran CD for serial correlation |  | 0.381 |  |  |
| Instrument Rank |  |  |  | 8 |
| j-statistics |  |  |  | 4.4427 |
| Prob-j-stat |  |  |  | 0.731 |
| AR(1) |  |  |  | 0.392 |
| AR(2) |  |  |  | 0.681 |

Source: Researcher’s compilation (2019) using Eviews 10.0 \* sig @ 5%, \*\*sig@10%

Table 4.9 showed the regression results which examined the impact of CSRD on Return on equity (ROE). From the Hausman test statistic p-value = 0.0119, the FE was the preferred model estimates between the fixed and random effect estimations. However, to address the presence of potential endogeneity bias in GD and EIS dimensions of CSRD, the generalized method of moments (GMM) estimator was also utilized. For statistical

precaution, the white adjusted standard error was employed to control for potential heteroskedasticity in the estimation and hence, the estimation results were free from heteroskedasticity. Both panel period heteroskedasticity [p=0.738] and cross-sectional heteroskedasticity [p=0.265] were examined and the estimations were found to be free from such. The Peseran cross-dependence test [p=0.381] which was employed to confirm the threat of the serial correlation in the errors and the statistic revealed the absence of cross-section dependence in the residuals. The FE estimates showed that R2 was 0.669 with a degree of freedom adjusted the R2 of 0.663 which explained the extent to which the explanatory variables were able to account for systematic variations in the dependent variables. The F-stat was 161.852 (p-value = 0.00) significant at 5% and suggested that the hypothesis of a significant linear relationship between the dependent and independent variables could not be rejected. It was also indicative of the joint statistical significance of the model.

The analysis of coefficients revealed that CSRD-GD dimension had a negative (- 0.02605) effect on ROE and statistically was significant at 5% (p=0.0089). Employment of indigenous staff (CSRD-EIS) related disclosures had a positive (0.02714) impact on ROE although not significant (p=0.1443) at 5%. Environmental activities dimension (CSRD-EA) had a positive (0.0251) impact on ROE and was also significant (p=0.0221) at 5%. Looking at the control variables, FSIZE showed a statistical significance. The Arrelano and Bond estimation results showed substantial difference from the FE estimations with stronger beta’s thus confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that CSRD-GD had a positive (0.22573) significant effect (p=0.000) on ROE, CSRD-EIS had a positive impact (0.2318) on ROE which was significant (p=0.00) at 5% and CSRD-EA had a positive beta (0.1061) and was significant (p=0.000)

at 5%. The J-stat test for over-identifying restrictions and the Arellano-Bond test for autocorrelation error were examined. The J-stat tests yielded all *p*-values above 0.10, which meant that a null hypothesis could not be rejected. Hence, over identification restrictions were valid. The AR(1) tests indicated that the residuals in first differences correlated as expected, while the AR(2) tests gave *p*-values above 0.10, which meant that a null hypothesis of no second-order serial correlation could not be rejected. Therefore, all results of the GMM model were valid.

Table 4.10. Quantile process Estimates for CSRD and ROE Regression

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| C | 0.1 | 0.001473 | 0.055984 | 0.026309 | 0.979 |
|  | 0.2 | 0.013331 | 0.074827 | 0.178155 | 0.8587 |
|  | 0.3 | 0.047358 | 0.08986 | 0.527019 | 0.5984 |
|  | 0.4 | 0.154592 | 0.104885 | 1.47392 | 0.141 |
|  | 0.5 | 0.586947 | 0.181413 | 3.235418 | 0.0013\* |
|  | 0.6 | 1.298439 | 0.211269 | 6.1459 | 0.000\* |
| 0.7 | 1.476538 | 0.170457 | 8.662215 | 0.000\* |
| 0.8 | 1.213097 | 0.187863 | 6.457336 | 0.000\* |
| 0.9 | 1.139201 | 0.263177 | 4.328642 | 0.000\* |
| CSRD-GD | 0.1 | -0.00059 | 0.021596 | -0.02749 | 0.9781 |
|  | 0.2 | -0.00818 | 0.0282 | -0.29006 | 0.7719 |
|  | 0.3 | -0.02755 | 0.033327 | -0.82649 | 0.4088 |
|  | 0.4 | -0.07256 | 0.040898 | -1.7742 | 0.0765\*\* |
|  | 0.5 | -0.09395 | 0.049405 | -1.90166 | 0.0577 |
|  | 0.6 | -0.00249 | 0.051491 | -0.04828 | 0.9615 |
| 0.7 | 0.030228 | 0.043875 | 0.688944 | 0.4911 |
| 0.8 | 0.045817 | 0.047141 | 0.971903 | 0.3315 |
| 0.9 | 0.126026 | 0.055746 | 2.260728 | 0.0241\* |
| CSRD-EIS | 0.1 | 0.000307 | 0.040813 | 0.007527 | 0.994 |
|  | 0.2 | 0.003814 | 0.05531 | 0.068949 | 0.9451 |
|  | 0.3 | 0.011034 | 0.067638 | 0.163126 | 0.8705 |
|  | 0.4 | 0.055458 | 0.077245 | 0.717956 | 0.4731 |
|  | 0.5 | -0.0699 | 0.150602 | -0.46412 | 0.6427 |
|  | 0.6 | -0.11595 | 0.127369 | -0.91034 | 0.363 |
| 0.7 | -0.07093 | 0.099006 | -0.71641 | 0.474 |
| 0.8 | -0.02614 | 0.076905 | -0.33991 | 0.734 |
| 0.9 | -0.00741 | 0.077271 | -0.09583 | 0.9237 |
| CSRD-EA | 0.1 | 0.000149 | 0.013447 | 0.011084 | 0.9912 |
|  | 0.2 | -0.0011 | 0.018076 | -0.06087 | 0.9515 |
|  | 0.3 | 0.002217 | 0.02175 | 0.101924 | 0.9188 |
|  | 0.4 | -0.00143 | 0.025279 | -0.05664 | 0.9549 |
|  | 0.5 | 0.0243 | 0.035921 | 0.676499 | 0.499 |
|  | 0.6 | 0.049922 | 0.043829 | 1.139026 | 0.2551 |
| 0.7 | 0.042747 | 0.038426 | 1.11245 | 0.2664 |
| 0.8 | 0.037938 | 0.045533 | 0.833205 | 0.405 |
| 0.9 | 0.108476 | 0.077878 | 1.392891 | 0.1642 |
| LEV | 0.1 | 0.001148 | 0.034141 | 0.03364 | 0.9732 |
|  | 0.2 | 0.013824 | 0.045228 | 0.30566 | 0.76 |
|  | 0.3 | 0.026957 | 0.05377 | 0.501341 | 0.6163 |
|  | 0.4 | 0.09419 | 0.056266 | 1.674007 | 0.0946\*\* |
|  | 0.5 | 0.11669 | 0.060419 | 1.93136 | 0.0539 |
|  | 0.6 | 0.066988 | 0.055558 | 1.205732 | 0.2284 |
| 0.7 | 0.001524 | 0.043569 | 0.034973 | 0.9721 |
| 0.8 | 0.004088 | 0.044647 | 0.091571 | 0.9271 |
| 0.9 | -0.0491 | 0.059015 | -0.83193 | 0.4058 |
| FSIZE | 0.1 | -0.00019 | 0.006429 | -0.02965 | 0.9764 |
|  | 0.2 | -0.00182 | 0.008543 | -0.21276 | 0.8316 |
|  | 0.3 | -0.0053 | 0.010162 | -0.52104 | 0.6025 |
|  | 0.4 | -0.02051 | 0.011945 | -1.71674 | 0.0865\*\* |
|  | 0.5 | -0.05271 | 0.021015 | -2.50832 | 0.0124 |
|  | 0.6 | -0.13334 | 0.021282 | -6.26549 | 0.000\* |
| 0.7 | -0.15027 | 0.018162 | -8.27378 | 0.000\* |
| 0.8 | -0.10937 | 0.023041 | -4.74679 | 0.000\* |
| 0.9 | -0.08968 | 0.032697 | -2.74276 | 0.0063\* |

Source: Researcher’s compilation (2019) using Eviews 10.0. \* sig @ 5%, \*\*sig@10%

As observed, the distributional dynamics for ROE failed to strongly highlight any significant financial performance region for which corporate social responsibility (CSRD- GD, CSRD-EIS and CSRD-EA) would be significant and the effect appeared generally weak for all performance quantiles. Although for firms at the lowest financial performance region Q[0.9], their CSRD-GD activity tended to significantly affect ROE at 5%.

The analysis of coefficients revealed that CSRD-GD dimension had a negative (- 0.02605) effect on ROE and was statistically significant at 5% (p=0.0089). Employment of indigenous staff (CSRD-EIS) related disclosures had a positive (0.02714) impact on ROE although not significant (p=0.1443) at 5%. Environmental activities dimension (CSRD-EA) had a positive (0.0251) impact on ROE and was also significant (p=0.0221) at 5%. Looking at the control variables, FSIZE showed a statistical significance. The Arrelano and Bond estimation results showed a substantial difference from the FE estimations with stronger beta’s thus confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that CSRD-GD had a positive (0.22573) significant effect (p=0.000) on ROE, CSRD-EIS had a positive impact (0.2318) on ROE which was significant (p=0.00) at 5% and CSRD-EA had a positive beta (0.1061) and was significant (p=0.000) at 5%.

The J-stat test for over-identifying restrictions and the Arellano-Bond test for autocorrelation error were examined. The J-stat tests yielded all *p*-values above 0.10, which meant that a null hypothesis could not be rejected. Hence, over identification restrictions were valid. The AR(1) tests indicated that the residuals in first differences correlated as expected, while the AR(2) tests gave *p*-values above 0.10, which meant that a null hypothesis of no second-order serial correlation could not be rejected. Therefore, all results of the GMM model were valid.

Table 4.11. CSRD and EPS Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Variable*** | **Aprori Sign** | FE  Estimates | RE  estimates | GMM  Estimates |
| *C* |  | 0.4448\* | 0.41139\* | -0.13197 |
|  | (0.0334) | (0.0742) | (0.0791) |
|  | {0.000) | {0.000} | {0.0969} |
| *CSRD-GD* |  | 0.00175 | 0.01184 | 0.04179 |
|  | + | (0.0205) | (0.02679) | (0.0379) |
|  |  | {0.9320} | {0.6586} | {0.2721} |
| *CSRD-EIS* |  | 0.1391 | 0.18432 | 0.45269\* |
|  | + | (0.0435) | (0.0208) | (0.01361) |
|  |  | {0.0015} | {0.000} | {0.000} |
| *CSRD-EA* |  | -0.0303\* | 0.18432 | -0.15271 |
|  | + | (0.0099) | (0.02227) | (0.01087) |
|  |  | {0.0025} | {0.1173} | {0.000} |
| *LEV* |  | 0.01371 | 0.00233 | 0.15271 |
|  | + | (0.0075) | (0.02106) | (0.04994) |
|  |  | {0.0709} | {0.9119} | {0.0025} |
| *FSIZE* |  | 0.0045 | 0.00245\* | 0.03046\* |
|  | + | (0.0034) | (0.0095) | (0.00633) |
|  |  | {0.1991} | {0.7961} | {0.0000} |
| *Model Parameters* | | | | |
| R2 |  | 0.659 | 0.0166 | 0.716 |
| Adjusted R2 |  | 0.632 | 0.0087 | 0.709 |
| F-statistic |  | 31.0892 | 2.0925 |  |
| Prob(F-stat) |  | 0.000 | 0.0647 |  |
| Durbin-Watson |  | 2.1 | 1.077 |  |
| *Model Diagnostics* | | | | |
| Hausman | 0.018 | | | |
| Ramsey Reset test |  | 0.477 |  |  |
| Period Hetero.Test |  | 0.677 |  |  |
| Cross-section Hetero.Test |  | 0.892 |  |  |
| Pesaran CD for serial correlation |  | 0.492 |  |  |
| Instrument Rank |  |  |  | 8 |
| j-statistics |  |  |  | 4.285 |
| Prob-j-stat |  |  |  | 0.117 |
| AR(1) |  |  |  | 0.392 |
| AR(2) |  |  |  | 0.681 |

Source: Researcher’s compilation (2019) using Eviews 10.0. \* sig @ 5%, \*\*sig@10%

Table 4.11 showed the regression results which examined the impact of CSRD on earnings per share (EPS). From the Hausman test statistic p-value = 0.018, the FE was the preferred model estimates for the fixed and random effect estimations. However, as indicated earlier, to address the presence of potential endogeneity bias in GD and EIS dimensions of CSRD, the generalized method of moments (GMM) estimator was also utilized. Both panel period heteroskedasticity [p=0.677] and cross-sectional heteroskedasticity [p=0.892] were examined and the estimations were found to be free

from such. The Peseran cross-dependence test [p=0.492] was employed to confirm the threat of the serial correlation in the errors and the statistic revealed the absence of a cross- section dependence in the residuals.

The FE estimates showed that R2 was 0.659 with a degree of freedom adjusted the R2 of 0.632 which explained the extent to which the explanatory variables were able to account for systematic variations in the dependent variables. The F-stat was 31.0892 (p- value = 0.00) significant at 5% and it suggested that the hypothesis of a significant linear relationship between the dependent and independent variables could not be rejected. It was also indicative of the joint statistical significance of the model. The analysis of coefficients revealed that CSRD-GD dimension had a positive (0.00175) effect on EPS although it was not statistically significant at 5% (p=0.9320). Employment of indigenous staff (CSRD-EIS) related disclosures had a positive (0.1391) impact on EPS and was significant (p=0.0015) at 5%. In the case of environmental activities dimension (CSRD- EA), the effect on EPS was negative and also significant (p=0.0025) at 5%. Looking at the control variables, none of FSIZE and LEV showed any statistical significance in their effects.

The Arrelano and Bond estimation results showed a substantial difference from the FE estimations with stronger beta’s thus confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive with an adjusted R2 of 70.9% The analysis of the coefficients revealed that CSRD-GD had a positive (0.04179) although it was not significant (p=0.2721) on EPS, CSRD-EIS had a positive impact (0.45269) on EPS which was significant (p=0.00) at 5% and CSRD-EA had a negative beta (-0.15271) and significant (p=0.000) at 5%. The J-stat test of over- identifying restrictions and the Arellano-Bond test for autocorrelation error were examined. The J-stat tests yielded all *p*-values above 0.10, which meant that a null

hypothesis could not be rejected. Hence, over identification restrictions were valid. The AR(1) tests indicated that the residuals in first differences correlated as expected, while the AR(2) tests gave *p*-values above 0.10, which meant that a null hypothesis of no second- order serial correlation could not be rejected. Therefore, all results of the GMM model were valid.

Table 4.12. Quantile process Estimates for CSRD and EPS Regression.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Quantile | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.100 | -0.051178 | 0.100352 | -0.509988 | 0.6102 |
|  | 0.200 | 0.135159 | 0.113631 | 1.189456 | 0.2347 |
|  | 0.300 | 0.278781 | 0.102786 | 2.712242 | 0.0069 |
|  | 0.400 | 0.289074 | 0.090892 | 3.180404 | 0.0015 |
|  | 0.500 | 0.322900 | 0.094659 | 3.411196 | 0.0007\* |
|  | 0.600 | 0.369534 | 0.103747 | 3.561857 | 0.0004\* |
| 0.700 | 0.354116 | 0.116690 | 3.034667 | 0.0025\* |
| 0.800 | 0.430114 | 0.177472 | 2.423560 | 0.0157\* |
| 0.900 | 0.605496 | 0.171684 | 3.526815 | 0.0005\* |
| CSRD-GD | 0.100 | 0.065051 | 0.034208 | 1.901641 | 0.0577 |
|  | 0.200 | 0.055904 | 0.034585 | 1.616425 | 0.1065 |
|  | 0.300 | 0.054228 | 0.037132 | 1.460410 | 0.1447 |
|  | 0.400 | 0.046156 | 0.044775 | 1.030849 | 0.3030 |
|  | 0.500 | 0.043709 | 0.047437 | 0.921406 | 0.3572 |
|  | 0.600 | 0.010578 | 0.038823 | 0.272473 | 0.7853 |
| 0.700 | 0.027846 | 0.036766 | 0.757395 | 0.4491 |
| 0.800 | 0.054903 | 0.041295 | 1.329523 | 0.1842 |
| 0.900 | 0.029582 | 0.064199 | 0.460796 | 0.6451 |
| CSRD-EIS | 0.100 | 0.145709 | 0.048812 | 2.985100 | 0.0029 |
|  | 0.200 | 0.213599 | 0.054567 | 3.914465 | 0.0001\* |
|  | 0.300 | 0.271881 | 0.057956 | 4.691145 | 0.0000\* |
|  | 0.400 | 0.290221 | 0.054485 | 5.326669 | 0.0000\* |
|  | 0.500 | 0.274024 | 0.067630 | 4.051825 | 0.0001\* |
|  | 0.600 | 0.299803 | 0.068531 | 4.374691 | 0.0000\* |
| 0.700 | 0.318182 | 0.077098 | 4.126977 | 0.0000\* |
| 0.800 | 0.259774 | 0.112252 | 2.314203 | 0.0210\* |
| 0.900 | 0.274702 | 0.060203 | 4.562898 | 0.0000\* |
| CSRD-EA | 0.100 | -0.010249 | 0.027767 | -0.369104 | 0.7122 |
|  | 0.200 | -0.008197 | 0.027261 | -0.300679 | 0.7638 |
|  | 0.300 | 0.013511 | 0.031842 | 0.424308 | 0.6715 |
|  | 0.400 | -0.005424 | 0.031226 | -0.173690 | 0.8622 |
|  | 0.500 | -0.000450 | 0.030542 | -0.014740 | 0.9882 |
|  | 0.600 | -0.019097 | 0.028866 | -0.661566 | 0.5085 |
| 0.700 | -0.025003 | 0.029254 | -0.854686 | 0.3931 |
| 0.800 | -0.044029 | 0.029332 | -1.501049 | 0.1339 |
| 0.900 | -0.044233 | 0.039791 | -1.111635 | 0.2667 |
| LEV | 0.100 | 0.055136 | 0.047489 | 1.161029 | 0.2461 |
|  | 0.200 | 0.021773 | 0.048493 | 0.448979 | 0.6536 |
|  | 0.300 | 0.036389 | 0.033500 | 1.086258 | 0.2778 |
|  | 0.400 | 0.016591 | 0.036997 | 0.448440 | 0.6540 |
|  | 0.500 | 0.047761 | 0.052405 | 0.911365 | 0.3625 |
|  | 0.600 | 0.063506 | 0.048064 | 1.321275 | 0.1869 |
| 0.700 | 0.011096 | 0.044368 | 0.250093 | 0.8026 |
| 0.800 | -0.015504 | 0.038839 | -0.399185 | 0.6899 |
| 0.900 | 0.061009 | 0.101721 | 0.599762 | 0.5489 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| FSIZE | 0.100 | 0.025789 | 0.012368 | 2.085108 | 0.0375 |
|  | 0.200 | 0.003586 | 0.014721 | 0.243594 | 0.8076 |
|  | 0.300 | -0.018683 | 0.013866 | -1.347390 | 0.1783 |
|  | 0.400 | -0.011258 | 0.014100 | -0.798451 | 0.4249 |
|  | 0.500 | -0.008455 | 0.016007 | -0.528224 | 0.5975 |
|  | 0.600 | -0.006976 | 0.016751 | -0.416449 | 0.6772 |
| 0.700 | 0.002941 | 0.017949 | 0.163866 | 0.8699 |
| 0.800 | 0.008958 | 0.017794 | 0.503427 | 0.6148 |
| 0.900 | -0.007592 | 0.021618 | -0.351203 | 0.7256 |

Source: Researcher’s compilation (2019) using Eviews 10.0. \* sig @ 5%, \*\*sig@10%

As observed, the quantile distributional dynamics for EPS highlighted the effect of CSRD-EIS to be significant at 5% for firms at both above average financial performance levels and those below average financial performance region. Specifically, the result revealed that firms at Q[0.1], Q[0.2], Q[0.3] and Q[0.4], which were made up of distributions in the highest EPS region had coefficient and p-values of [0.146, p=0.0029], [0.2136, p=0.000], [0.2719,p=0.000] and [0.2902,p=0.000] respectively. The results suggested that for distributions in the high EPS region above the average, the influence of CSRD-EIS was positive and significant. A similar relationship was observed for EPS levels on the average and below average, for example, at Q[0.5], Q[0.6], Q[0.7] and Q[0.8], with coefficient and p-values of [0.274, p=0.000], [0.2998, p=0.000], [0.318,p=0.000] and [0.2598 ,p=0.0210] respectively. The results suggested that overall, the effect of CSRD-EIS was positive and significant across all levels of EPS.

The analysis of coefficients revealed that CSRD-GD dimension had a positive (0.00175) effect on EPS although it was not statistically significant at 5% (p=0.9320). Employment of indigenous staff (CSRD-EIS) related disclosures had a positive (0.1391) impact on EPS and was significant (p=0.0015) at 5%. In the case of environmental activities dimension (CSRD-EA), the effect on EPS was negative and also significant (p=0.0025) at 5%. Looking at the control variables, none of FSIZE and LEV showed any statistical significance in their effects.

The Arrelano and Bond estimation results showed a substantial difference in the FE estimations with stronger beta’s thus confirming that the Arrelano and Bond

estimations results, after correcting for endogeneity, were more impressive with an adjusted R2 of 70.9% The analysis of the coefficients revealed CSRD-GD had a positive impact (0.04179) although it was not significant (p=0.2721) at 5%, CSRD-EIS had a positive impact (0.45269) on EPS which was significant (p=0.00) at 5% and CSRD-EA had a negative beta (-0.15271) and was significant (p=0.000) at 5%. The J-stat test of over-identifying restrictions and the Arellano-Bond test for autocorrelation error were examined. The J-stat tests yielded all *p*-values above 0.10, which meant that a null hypothesis could not be rejected. Hence, over identification restrictions were valid. The AR(1) tests indicated that the residuals in first differences correlated as expected, while the AR(2) tests gave *p*-values above 0.10, which meant that a null hypothesis of no second- order serial correlation could not be rejected. Therefore, all results of the GMM model were valid.

# Test of Hypotheses

Hypotheses formulated previously in chapter one were tested in this section. Our decision rule is to accept hypothesis formulated if the calculated probability value is less than t- critical value at 0.05 (5%) significant level. Otherwise we reject it.

# Test of Hypothesis 1

## Gifts and donations (GD) has no significant impact on corporate performance (FP) of selected quoted firms in Nigeria.

Gifts and donations (GD) had a positive (2.1591) effect on SP and was statistically significant at 5% (p=0.000). This was in agreement with the findings of Sampath (2015). Also, the analysis of the coefficients revealed that GD had a positive (0.1463) significant effect (p=0.000) on ROA. This was not in agreement with findings of Erhirhie and Ekwueme (2019), Isa and Madaki (2017), El Mosaid and Boutti (2012), but in agreement

with the findings of Uadiale and Fagbemi (2012). More so, the analysis of the coefficients revealed that GD had a positive (0.22573) significant effect (p=0.000) on ROE. This was in agreement with the findings of Gololo (2019), Erhirhie and Ekwueme (2019), Uadiale and Fagbemi (2012), but not in agreement with the findings of Isa and Madaki (2017), El Mosaid and Boutti (2012). The analysis of fixed effects coefficients revealed that GD dimension had a positive (0.00175) effect on EPS although it was not statistically significant at 5% (p=0.9320). This was in agreement with the findings of Isa and Madaki (2017). *Following the decision rule, GD has a positive significant effect on CFP when considering the individual proxies of SP, ROA, and ROE, but showing no significant effect on EPS*.

# Test of Hypothesis Two

## Employment of indigenous staff (EIS) has no significant effect on financial performance (FP) of selected quoted firms in Nigeria.

From the results, the analysis of coefficients revealed that EIS had a positive (2.1896) impact on SP and was not statistically significant (p=0.088) at 5%. This was in agreement with the findings of Sampath (2019), but not in agreement with the findings of Fiori, Donato and Izzo (2015). The analysis of coefficients revealed that Employment of indigenous staff (EIS) related disclosures had a negative (-0.0776) impact on ROA although it was not also significant (p=0.1399) at 5%. This was in agreement with the findings of Erhirhie and Ekwueme (2019), Isa and Madaki (2017), El Mosaid and Boutti (2012), but was not in agreement with the findings of Uadiale and Fagbemi (2012), Iqbal (2012). The analysis of the coefficients revealed that EIS had a positive impact (0.2318) on ROE which was significant (p=0.00) at 5%. This was in agreement with the findings of Gololo (2019), Uadiale and Fagbemi (2012), Iqbal (2012), but not in agreement with the

findings of Erhirhie and Ekwueme (2019), Isa and Madaki (2017), El Mosaid and Boutti (2012). Employment of indigenous staff (EIS) related disclosures had a positive (0.1391) impact on EPS and it was significant (p=0.0015) at 5%. This was in agreement with the findings of Isa and Madaki (2017). *Following the decision rule, EIS was seen to have a positive significant effect on CFP when considering the individual proxies of ROA, ROE, and EPS, however showing a negative significant effect on SP.*

# Test of Hypothesis Three

## Environmental activities (EA) has no significant impact on financial performance (FP) of selected quoted firms in Nigeria.

The Arrelano and Bond estimation results revealed that EA had a positive beta (85.1088) impact on SP and was significant (p=0.000) at 5%. This was in agreement with the findings of Sampath (2015), Ibrahim adnn Hamid (2019) but not in agreement with the findings of Fiori, Donato and Izzo (2015). The analysis of fixed effects coefficients revealed that Environmental activities dimension (EA) had a positive (0.0251) impact on ROA and was significant (p=0.0251) at 5%. This was not in agreement with the findings of Erhirhie and Ekwueme (2019), Isa and Madaki (2017), Noor (2015), El Mosaid and Boutti (2012), but in agreement with the findings of Ibrahim and Hamid (2019), Uadiale and Fagbemi (2012), Iqbal (2012). The analysis of the coefficients revealed that EA had a negative beta (-0.2769) and it was significant (p=0.000) at 5%. The analysis of the fixed effects coefficients revealed that Environmental activities dimension (EA) had a positive (0.0251) impact on ROE and was also significant (p=0.0221) at 5%. This was in agreement with the findings of Gololo (2019), Ibrahim and Hamid (2019), Uadiale and Fagbemi (2012), Iqbal (2012), but was not in agreement with the findings of Erhirhie and Ekwueme (2019), Isa and Madaki (2017), Noor (2015), El Mosaid and Boutti (2012). The

analysis of the coefficients revealed that EA had a positive beta (0.1061) and significant (p=0.000) at 5%. The analysis of fixed effects coefficients revealed that environmental activities dimension (EA), the effect on EPS was negative and also significant (p=0.0025) at 5%. This was in agreement with the findings of Isa and Madaki (2017), Noor (2015), but in agreement with the findings of Ibrahim and Hamid (2019), Seungwoo, Junseok and Ahreum (2017). *Considering the decision rule, EA was seen to have a positive significant effect on CFP when considering the individual proxies of SP and ROE, on the other hand showing a negative significant effect on ROA and EPS.*

# CHAPTER FIVE DISCUSSION OF FINDINGS

# Introduction

This chapter examines the discussion of results and the test of hypotheses. The findings of the study are discussed in the light of existing extant literature and this forms the basis for the test of hypotheses.

# Discussion of Findings

The findings of the study are hereby discussed.

# Gifts and Donations on Share Price

The impact of corporate social responsibility disclosure as proxied by gifts and donations (GD) on share price (SP) was significantly positive.

From the results in table 4.5, the analysis of coefficients revealed that GD had a positive (2.1591) effect on SP and was statistically significant at 5% (p=0.000). However, the Arrelano and Bond estimation results revealed that GD had a positive (17.5513) significant effect (p=0.058) on SP at 10%. Consequently, on the basis of the Arrelano and Bond GMM estimation, the null hypothesis that corporate social responsibility disclosure on gifts and donations has no significant impact on share price was rejected. For GD, the quantile estimates showed that for firms at below average share price level (Q[0.8.] and Q[0.9]) for the distribution, the relationship with GD was strongest. That could suggest that GD had stronger positive effects on SP for firms in the below distribution average. That was in agreement with Sampath (2015) and Adina and Dumitru (2017) but in disagreement with Vance (1975), Fiori, Donato and Izzo (2015) Oladipupo and Oladimeji (2018).

# Employment of indigenous staff on Share Price

The impact of corporate social responsibility disclosure as proxied by employment of indigenous staff (EIS) on share price (SP) was significantly positive.

From the results in table 4.5, the analysis of coefficients revealed that EIS had a positive (2.1896) impact on SP and was statistically significant (p=0.088) at 10%. EIS had a negative impact (-25.8445) on SP which was significant (p=0.000) at 5%. As observed, the distributional dynamics for SP highlighted that the effect of EIS was significant at 5% for firms at high levels above average financial performance at Q[0.3.] and Q[0.4].

# Environmental activities on Share Price

The impact of corporate social responsibility disclosure as proxied by environmental activities (EA) on share price (SP) was significantly positive.

From the results in table 4.5, the analysis of coefficients revealed that EA’s impact on SP was not significant at 5% although with a negative (-1.5786) coefficient. However, the Arrelano and Bond estimation results revealed that EA had a positive beta (85.1088) and was significant (p=0.000) at 5%. The results from quantile regression showed that the effect of EA on share price could not necessarily be a function of the share price levels. Therefore, whether firms had relative high, average or low share prices, the effect of EA on SP was persistent.

# Gifts and Donations (GD) on Return on Assets (ROA)

Table 4.9 showed the regression results which examined the impact of GD on Return on Assets (ROA). The analysis of fixed effects coefficients revealed that GD dimension had a negative (-0.01892) effect on ROA although it was not statistically significant at 5% (p=0.2145). However, the Arrelano and Bond GMM estimation results showed a

substantial difference from the FE estimations with stronger beta’s thus, confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that GD had a positive (0.1463) significant effect (p=0.000) on ROA.

# Employment of indigenous staff (EIS) on Return on Assets (ROA)

Table 4.9 showed the regression results which examined the impact of EIS on Return on Assets (ROA). The analysis of fixed effects coefficients revealed that Employment of indigenous staff (EIS) related disclosures had a negative (-0.0776) impact on ROA although it was not also significant (p=0.1399) at 5%. However, the Arrelano and Bond GMM estimation results showed a substantial difference from the FE estimations with stronger beta’s thus, confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that EIS had a positive impact (0.6625) on ROA which was significant (p=0.00) at 5%.

# Environmental activities (EA) on Return on Assets (ROA)

Table 4.9 showed the regression results which examined the impact of EA on Return on Assets (ROA). The analysis of fixed effects coefficients revealed that Environmental activities dimension (EA) had a positive (0.0251) impact on ROA and was significant (p=0.0251) at 5%. However, the Arrelano and Bond GMM estimation results showed a substantial difference from the FE estimations with stronger beta’s thus, confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that EA had a negative beta (-0.2769) and it was significant (p=0.000) at 5%.

# Gifts and Donations (GD) on Return on Equity (ROE)

Table 4.8 showed the regression results which examined the impact of GD on Return on Equity (ROE). The analysis of the fixed effects coefficients revealed that GD dimension had a negative (-0.02605) effect on ROE and was statistically significant at 5% (p=0.0089). The Arrelano and Bond GMM estimation results showed a substantial difference from the FE estimations with stronger beta’s thus, confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that GD had a positive (0.22573) significant effect (p=0.000) on ROE. Although insights from the quantile regression for the distributional dynamics for ROE failed to strongly highlight any significant financial performance region for which corporate social responsibility [GD, EIS and EA] would be significant, but for firms at the lowest financial performance region Q[0.9], their GD activity tended to significantly affect ROE at 5%.

# Employment of indigenous staff (EIS) on Return on Equity (ROE)

Table 4.8 showed the regression results which examined the impact of EIS on Return on Equity (ROE). Employment of indigenous staff (EIS) related disclosures had a positive (0.02714) impact on ROE although it was not significant (p=0.1443) at 5%. The Arrelano and Bond GMM estimation results showed a substantial difference from the FE estimations with stronger beta’s thus, confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that EIS had a positive impact (0.2318) on ROE which was significant (p=0.00) at 5%. Although insights from the quantile regression for the distributional dynamics for ROE failed to strongly highlight any significant financial

performance region for which corporate social responsibility [GD, EIS and EA] would be significant, but for firms at the lowest financial performance region Q[0.9].

# Environmental activities (EA) on Return on Equity (ROE)

Table 4.8 showed the regression results which examined the impact of EA on Return on Equity (ROE). The analysis of the fixed effects coefficients revealed that Environmental activities dimension (EA) had a positive (0.0251) impact on ROE and was also significant (p=0.0221) at 5%. The Arrelano and Bond GMM estimation results showed a substantial difference from the FE estimations with stronger beta’s thus, confirming that the Arrelano and Bond estimations results, after correcting for endogeneity, were more impressive. The analysis of the coefficients revealed that EA had a positive beta (0.1061) and significant (p=0.000) at 5%. Although insights from the quantile regression for the distributional dynamics for ROE failed to strongly highlight any significant financial performance region for which corporate social responsibility would be significant.

# Gifts and Donations (GD) on Earnings per share (EPS)

Table 4.9 showed the regression results which examined the impact of GD on earnings per share (EPS). The analysis of fixed effects coefficients revealed that GD dimension had a positive (0.00175) effect on EPS although it was not statistically significant at 5% (p=0.9320). The Arrelano and Bond estimation results revealed that GD had a positive (0.04179) although no significant effect (p=0.2721) on EPS.

# Employment of indigenous staff (EIS) on Earnings per share (EPS)

Table 4.9 showed the regression results which examined the impact of EIS on earnings per share (EPS). Employment of indigenous staff (EIS) related disclosures had a positive (0.1391) impact on EPS and it was significant (p=0.0015) at 5%. The Arrelano and Bond

estimation results revealed that EIS had a positive impact (0.45269) on EPS which was significant (p=0.00) at 5%. Insights from the quantile distributional dynamics for EPS tended to highlight that the effect of EIS was significant at 5% for firms at both above average financial performance levels and those below average financial performance region. Specifically, the result revealed that firms at Q[0.1], Q[0.2], Q[0.3] and Q[0.4] which were made up of distributions in the highest EPS region had coefficient and p- values of [0.146, p=0.0029], [0.2136, p=0.000], [0.2719,p=0.000] and [0.2902,p=0.000]

respectively. The results suggested that for distributions in the high EPS region above the average, the influence of EIS was positive and significant. A similar relationship was observed for EPS levels on average and below average, for example, at Q[0.5], Q[0.6], Q[0.7] and Q[0.8], with coefficient and p-values of [0.274, p=0.000], [0.2998, p=0.000], [0.318,p=0.000] and [0.2598, p=0.0210] respectively. The results suggested that overall, the effect of EIS was positive and significant across all levels of EPS.

# Environmental activities (EA) on Earnings per share (EPS)

Table 4.9 showed the regression results which examined the impact of EA on earnings per share (EPS). The analysis of fixed effects coefficients revealed that environmental activities dimension (EA), the effect on EPS was negative and also significant (p=0.0025) at 5%. The Arrelano and Bond estimation results revealed that EA had a negative beta (- 0.15271) and it was significant (p=0.000) at 5%.

# CHAPTER SIX

**SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

# 6.1. Introduction

This chapter summarizes the research work and provides conclusion and recommendations in line with the topic of study. That is, it empirically investigates the relationship between CSR disclosure and financial performance of listed non-financial companies in Nigeria. Conceptual, theoretical and empirical literatures were used to identify the research gaps in knowledge. The study presented and analysed data in chapter four with specific attention given to the objectives and research questions of the study which were used as units of analyses. The discussion of findings was related to the concept and empirical studies reviewed in chapter two, followed by the test of hypotheses formulated in chapter one which compared our results with other existing ones in both developed and developing economies.

# 6.2 Summary of Findings

1. The results revealed a significant impact on corporate social responsibility disclosure and corporate financial performance measures. Specifically, the parameter estimates revealed that: CSRD-GD had a positive significant effect on SP at 10%, CSRD- EIS had a negative impact on SP which was significant at 5% and CSRD-EA had a positive impact and significant at 5%.
2. The results revealed a significant impact on corporate social responsibility disclosure and ROA. Specifically, the parameter estimates revealed that: CSRD-GD had a positive significant effect on ROA at 5%, CSRD-EIS had a positive impact on ROA which was significant at 5% and CSRD-EA had a negative impact and significant at 5%.
3. The results revealed a significant impact on corporate social responsibility disclosure and ROE. Specifically, the parameter estimates reveal that: CSRD-GD had a

positive significant effect on ROE at 5%, CSRD-EIS had a positive impact on ROE which was significant at 5% and CSRD-EA had a positive beta and was significant at 5%.

1. The results revealed a significant effect on corporate social responsibility disclosure and EPS. Specifically, the parameter estimates revealed that: CSRD-GD had a positive though not significant effect on EPS, CSRD-EIS had a positive impact on EPS which was significant at 5% and CSRD-EA had a negative effect on EPS and it was significant at 5%.

# Conclusion

In the past, corporate social responsibility disclosure used to get less attention from and minimum revelevance in the objectives of business corporations. However, it has become a crucial concern in recent times as a result of the global attention that the subject has attracted. One approach in evaluating a company’s CSR behaviour is to examine if it engages in CSR disclosure. It is believed that when a company engages in social responsibility disclosure, it presents a balanced reportage of its activities and impacts and provides a basis for stakeholders to evaluate its performance. It suffices to note that CSRD is seen to have developed rather voluntarily in the recent past and this implies that companies can choose what to disclose, and may even decide not to. Furthermore, the nexus between CSRD and corporate financial performance is complex and leaves much to be studied or researched. This is confirmed by the results-oriented empirical literatures in the field. The study has tried to verify whether certain corporate financial performance measures can be affected by a firm’s social responsible behaviour. The study analysed some descriptive statistics and used cross section and panel data econometrical approaches to verify whether CSR disclosure could affect corporate financial performance measures.

The study concludes that corporate social responsibility disclosure has a significant impact on firm’s financial performance. This implies that the practice of effective corporate social

responsibility disclosure (CSRD) can enhance a more harmonious coexistence and smooth operation of the companies in their host communities. This will equally promote the companies’ reputation even as they strive to nurture and safeguard the environment in which they operate, and hence, improve their financial performances.

# Recommendations

Based on the findings of this study, the following recommendations were made:

1. Given that there is a significant impact on corporate social responsibility disclosure and corporate financial performance measures, the study recommended among other things that; corporate social responsibility disclosure should be encouraged in order to improve the brand and image reputation of the companies.
2. The challenging situation of the weakness of state policy in the development of effective and enforceable CSRD framework especially, in most developing countries, lends credence to the view that contemporary CSR practices have drifted and evolved within a system skewed towards the spirit of free-market individualism without an effective state direction. Consequently, there is a need for effective regulation of CSRD practices of companies in Nigeria.
3. There is the issue of credibility of CSR disclosures. One problem with CSR disclosure is that the information reported tends to be selective and, as such, it is difficult to determine whether such disclosures are anything more than corporate branding which is motivated to enhance corporate image. Hence, there is the need for external verification of CSR claims as well as ascertaining the reliability and authenticity of CSR disclosure representations in the accounting record.
4. Finally, judging from the grave dangers posed by environmental degradation globally and Nigeria in particular, it is recommended that stiff sanctions be imposed on

companies with poor or even without corporate environmental responsibility measures and or policies.

# Recommendations for Further Studies

1. We recommend further studies on Corporate Social Responsibility Disclosure (CSRD) and Corporate Financial Performance (CFP) in the private sector of the economy.
2. We also recommend further studies on Corporate Social Responsibility and Corporate Financial Performance in both financial and non-financial sectors of the economy with larger samples.

# Contributions to Knowledge

The study contributed to the existing body of knowledge as the study analysed components of the dependent and independent variables in arriving at more conclusive findings. The time period employed in the study (22 years) which is relatively long as against previous studies is a contribution to the existing body of knowledge.

Some existing literatures dealt so much on the subject only in the financial sector making it seem as if the non-financial sector does little or nothing in the area of corporate social responsibility disclosure. This study, however, revealed that the non-financial sector is also involved in corporate social responsibility activities and the disclosure, in no small way.

Some of the existing studies in this area employed relatively small sample sizes, ranging from 1 to 10 companies. This makes generalization of results unreliable and inconsistent. In this study, however, a larger sample size (86 companies) representing 79% of the population was used to make generalization of results more reliable, realistic, consistent and acceptable.

Lastly, this study focused on the listed non-financial companies in Nigeria as against most of the previous studies which focused on Asia and European countries such as Malaysia, India, China, Italy, Bangladesh, to mention but a few.

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**APPENDIX I STUDY DATA**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Companies’ Name | Year | SP | CSR | GD | EMP | ENV | LEV | FSIZE | ROE | EPS | ROA |
| Nascon Allied Industries | 1997 | 39 | 1 | 1 | 1 | 0 | 0.73 | 7.52 | 0.0066 | 0.7 | 0.658 |
| Nascon Allied Industries | 1998 | 46.47 | 1 | 1 | 1 | 0 | 0.79 | 7.6 | 0.0074 | 0.75 | 0.775 |
| Nascon Allied Industries | 1999 | 42 | 1 | 1 | 1 | 0 | 0.77 | 7.65 | 0.0065 | 0.73 | 0.644 |
| Nascon Allied Industries | 2000 | 71.4 | 0 | 1 | 1 | 0 | 0.76 | 7.71 | 0.006 | 0.79 | 0.668 |
| Nascon Allied Industries | 2001 | 165.4 | 0 | 1 | 1 | 0 | 0.69 | 7.75 | 0.006 | 0.77 | 0.662 |
| Nascon Allied Industries | 2002 | 182 | 0 | 1 | 1 | 0 | 0.65 | 7.83 | 0.0055 | 0.76 | 0.8 |
| Nascon Allied Industries | 2003 | 129 | 1 | 1 | 1 | 1 | 0.63 | 7.83 | 0.0047 | 0.69 | 0.738 |
| Nascon Allied Industries | 2004 | 90 | 1 | 1 | 1 | 1 | 0.85 | 7.94 | 0.0045 | 0.65 | 0.796 |
| Nascon Allied Industries | 2005 | 2.54 | 1 | 1 | 1 | 0 | 0.52 | 7.29 | 0.0038 | 0.63 | 0.628 |
| Nascon Allied Industries | 2006 | 1.38 | 1 | 1 | 1 | 0 | 0.51 | 7.32 | 0.0057 | 0.85 | 0.595 |
| Nascon Allied Industries | 2007 | 1.35 | 1 | 1 | 1 | 0 | 0.55 | 7.36 | 0.0042 | 0.32 | 0.78 |
| Nascon Allied Industries | 2008 | 1.7 | 1 | 1 | 1 | 0 | 0.52 | 7.31 | 0.0047 | 0.37 | 0.725 |
| Nascon Allied Industries | 2009 | 1.31 | 1 | 1 | 1 | 1 | 0.57 | 7.38 | 0.0015 | 0.52 | 0.591 |
| Nascon Allied Industries | 2010 | 0.62 | 1 | 1 | 1 | 0 | 0.6 | 7.35 | 0.0039 | 0.51 | 0.336 |
| Nascon Allied Industries | 2011 | 0.96 | 1 | 1 | 1 | 0 | 0.69 | 7.31 | 0.0049 | 0.55 | 0.312 |
| Nascon Allied Industries | 2012 | 0.69 | 1 | 1 | 1 | 1 | 0.85 | 7.27 | 0.0025 | 0.52 | 0.273 |
| Nascon Allied Industries | 2013 | 3.68 | 0 | 0 | 1 | 0 | 0.76 | 6.31 | 0.3391 | 0.57 | 0.374 |
| Nascon Allied Industries | 2014 | 2.2 | 0 | 1 | 1 | 0 | 0.73 | 6.37 | 0.16 | 0.6 | 0.285 |
| Nascon Allied Industries | 2015 | 1.62 | 0 | 1 | 1 | 0 | 0.76 | 6.45 | 0.16 | 0.69 | 0.272 |
| Nascon Allied Industries | 2016 | 2.55 | 0 | 1 | 1 | 0 | 0.79 | 6.55 | 0.1687 | 0.85 | 0.229 |
| Nascon Allied Industries | 2017 | 1.18 | 0 | 1 | 1 | 0 | 0.79 | 6.58 | 0.1795 | 0.7 | 0.412 |
| Nascon Allied Industries | 2018 | 0.55 | 0 | 1 | 1 | 0 | 0.81 | 6.57 | 0.0344 | 0.69 | 0.4 |
| Academy Press | 1997 | 0.5 | 0 | 1 | 1 | 0 | 0.83 | 6.55 | 0.0413 | 0.76 | 0.714 |
| Academy Press | 1998 | 0.5 | 1 | 1 | 1 | 1 | 0.92 | 6.47 | 0.0373 | 0.73 | 0.519 |
| Academy Press | 1999 | 1.72 | 0 | 1 | 1 | 0 | 0.3 | 6.35 | 0.4969 | 0.76 | 0.449 |
| Academy Press | 2000 | 2.17 | 0 | 1 | 1 | 0 | 0.3 | 6.41 | 0.623 | 0.79 | 0.512 |
| Academy Press | 2001 | 4.18 | 0 | 1 | 1 | 0 | 0.27 | 6.48 | 0.6185 | 0.79 | 0.753 |
| Academy Press | 2002 | 3.2 | 0 | 1 | 1 | 0 | 0.38 | 6.54 | 0.766 | 0.81 | 0.661 |
| Academy Press | 2003 | 1.7 | 0 | 1 | 1 | 0 | 0.46 | 6.63 | 0.7631 | 0.83 | 0.582 |
| Academy Press | 2004 | 2.21 | 0 | 1 | 1 | 0 | 0.55 | 6.66 | 0.4034 | 0.92 | 0.513 |
| Academy Press | 2005 | 2.5 | 0 | 1 | 1 | 0 | 0.5 | 6.81 | 0.4034 | 0.6 | 0.27 |
| Academy Press | 2006 | 6.24 | 1 | 1 | 1 | 1 | 0.29 | 6.7 | 0.7512 | 0.44 | 0.234 |
| Academy Press | 2007 | 12.39 | 0 | 1 | 1 | 0 | 0.65 | 5.93 | 0.0006 | 0.3 | 0.321 |
| Academy Press | 2008 | 11.15 | 1 | 1 | 1 | 0 | 0.5 | 6.09 | 0.0006 | 0.3 | 0.421 |
| Academy Press | 2009 | 10.55 | 1 | 1 | 1 | 0 | 0.41 | 6.21 | 0.0002 | 0.27 | 0.395 |
| Academy Press | 2010 | 10.5 | 1 | 1 | 1 | 0 | 0.43 | 6.23 | 0.0002 | 0.38 | 0.441 |
| Academy Press | 2011 | 10.43 | 1 | 1 | 1 | 0 | 0.37 | 6.24 | 0.0002 | 0.46 | 0.779 |
| Academy Press | 2012 | 9.35 | 1 | 1 | 1 | 0 | 0.38 | 6.26 | 0.0002 | 0.55 | 0.625 |
| Academy Press | 2013 | 9.27 | 1 | 1 | 1 | 0 | 0.19 | 6.58 | 0.0002 | 0.5 | 0.596 |
| Academy Press | 2014 | 9.18 |  |  |  |  | 0.29 | 6.35 | 0.0002 | 0.29 | 0.162 |
| Academy Press | 2015 | 0.55 | 0 | 1 | 1 | 0 | 0.53 | 6.57 | 0.4729 | 0.76 | 1.198 |
| Academy Press | 2016 | 0.5 | 1 | 1 | 1 | 0 | 0.63 | 6.71 | 0.4785 | 0.66 | 0.823 |
| Academy Press | 2017 | 0.5 | 0 | 1 | 1 | 0 | 0.56 | 6.7 | 0.4594 | 0.65 | 0.889 |
| Academy Press | 2018 | 0.82 | 1 | 1 | 1 | 0 | 0.6 | 6.75 | 0.6153 | 0.5 | 1.098 |
| Aluminium Extrusion Indus | 1997 | 0.55 | 0 | 1 | 1 | 0 | 0.71 | 6.81 | 0.6228 | 0.41 | 1.076 |
| Aluminium Extrusion Indus | 1998 | 0.5 | 1 | 1 | 1 | 0 | 0.68 | 6.78 | 0.5695 | 0.43 | 0.808 |
| Aluminium Extrusion Indus | 1999 | 0.5 | 1 | 1 | 1 | 0 | 0.67 | 6.64 | 0.5695 | 0.37 | 0.765 |
| Aluminium Extrusion Indus | 2000 | 0.5 | 0 | 0 | 0 | 0 | 0.57 | 6.65 | 0.5693 | 0.38 | 0.757 |
| Aluminium Extrusion Indus | 2001 | 9.2 | 1 | 1 | 1 | 0 | 0.47 | 6.33 | 0.0007 | 0.19 | 0.86 |
| Aluminium Extrusion Indus | 2002 | 6.85 | 1 | 1 | 1 | 0 | 0.4 | 6.35 | 0.0006 | 0.29 | 0.406 |
| Aluminium Extrusion Indus | 2003 | 6.25 | 1 | 1 | 1 | 0 | 0.38 | 6.42 | 0.0006 | 0.58 | 0.299 |
| Aluminium Extrusion Indus | 2004 | 6.66 | 1 | 1 | 1 | 0 | 0.37 | 6.46 | 0.0006 | 0.57 | 0.281 |
| Aluminium Extrusion Indus | 2005 | 5.48 | 1 | 1 | 1 | 0 | 0.41 | 6.53 | 0.0006 | 0.53 | 0.287 |
| Aluminium Extrusion Indus | 2006 | 3.79 | 1 | 1 | 1 | 0 | 0.34 | 6.51 | 0.0001 | 0.63 | 1.086 |
| Aluminium Extrusion Indus | 2007 | 3.53 | 1 | 1 | 1 | 0 | 0.4 | 6.56 | 0.0001 | 0.56 | 0.71 |
| Aluminium Extrusion Indus | 2008 | 4.79 | 1 | 1 | 1 | 0 | 0.44 | 6.63 | 0.0102 | 0.6 | 0.748 |
| Aluminium Extrusion Indus | 2009 | 8.36 | 1 | 1 | 1 | 1 | 0.36 | 6.42 | 0.0441 | 0.71 | 0.782 |
| Aluminium Extrusion Indus | 2010 | 8.47 | 1 | 1 | 1 | 0 | 0.35 | 6.43 | 0.0442 | 0.68 | 0.583 |
| Aluminium Extrusion Indus | 2011 | 8.98 | 1 | 1 | 1 | 0 | 0.39 | 6.46 | 0.067 | 0.67 | 0.498 |
| Aluminium Extrusion Indus | 2012 | 8 | 0 | 1 | 1 | 1 | 0.31 | 6.55 | 0.092 | 0.57 | 0.683 |
| Aluminium Extrusion Indus | 2013 | 9 | 0 | 1 | 1 | 1 | 0.32 | 6.56 | 0.0209 | 0.6 | 0.613 |
| Aluminium Extrusion Indus | 2014 | 10 | 0 | 1 | 1 | 1 | 0.34 | 6.59 | 0.0225 | 0.55 | 0.579 |
| Aluminium Extrusion Indus | 2015 | 6.4 | 0 | 1 | 1 | 0 | 0.37 | 6.61 | 0.0587 | 0.47 | 0.504 |
| Aluminium Extrusion Indus | 2016 | 8.49 | 1 | 1 | 1 | 1 | 0.39 | 6.63 | 0.0635 | 0.4 | 0.533 |
| Aluminium Extrusion Indus | 2017 | 15.58 | 1 | 1 | 1 | 0 | 0.39 | 7.21 | 0.0025 | 0.38 | 0.594 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Aluminium Extrusion Indus | 2018 | 12.71 | 1 | 1 | 1 | 0 | 0.37 | 7.26 | 0.0006 | 0.37 | 0.535 |
| Afromedia, Capital Hotel | 1997 | 10.5 | 1 | 1 | 1 | 0 | 0.45 | 7.35 | 0.0006 | 0.41 | 0.779 |
| Afromedia, Capital Hotel | 1998 | 14.43 | 1 | 1 | 1 | 0 | 0.49 | 7.43 | 0.0005 | 0.34 | 0.666 |
| Afromedia, Capital Hotel | 1999 | 27.78 | 1 | 1 | 1 | 0 | 0.41 | 7.43 | 0.0005 | 0.4 | 0.656 |
| Afromedia, Capital Hotel | 2000 | 53.45 | 1 | 1 | 1 | 0 | 0.35 | 7.43 | 0.0005 | 0.44 | 0.53 |
| Afromedia, Capital Hotel | 2001 | 30.32 | 1 | 1 | 1 | 0 | 0.35 | 7.52 | 0.0001 | 0.4 | 0.521 |
| Afromedia, Capital Hotel | 2002 | 49.14 | 1 | 1 | 1 | 0 | 0.34 | 7.58 | 0.0001 | 0.41 | 0.52 |
| Afromedia, Capital Hotel | 2003 | 25.62 | 1 | 1 | 1 | 0 | 0.54 | 7.45 | 0.0052 | 0.36 | 0.461 |
| Afromedia, Capital Hotel | 2004 | 11.4 | 1 | 1 | 1 | 0 | 0.51 | 7.53 | 0.0054 | 0.35 | 0.412 |
| Afromedia, Capital Hotel | 2005 | 29 | 1 | 0 | 1 | 0 | 0.5 | 7.6 | 0.0298 | 0.39 | 0.435 |
| Afromedia, Capital Hotel | 2006 | 59.01 | 1 | 0 | 1 | 0 | 0.44 | 7.64 | 0.0298 | 0.31 | 0.484 |
| Afromedia, Capital Hotel | 2007 | 40 | 1 | 0 | 1 | 0 | 0.6 | 7.46 | 0.0048 | 0.32 | 0.249 |
| Afromedia, Capital Hotel | 2008 | 17.15 | 1 | 0 | 1 | 0 | 0.57 | 7.45 | 0.0051 | 0.34 | 0.287 |
| Afromedia, Capital Hotel | 2009 | 10.29 | 1 | 1 | 1 | 0 | 0.61 | 7.45 | 0.0051 | 0.37 | 0.479 |
| Afromedia, Capital Hotel | 2010 | 15.67 | 1 | 0 | 1 | 1 | 0.59 | 7.45 | 0.0003 | 0.39 | 0.538 |
| Afromedia, Capital Hotel | 2011 | 3.3 | 1 | 1 | 1 | 0 | 0.47 | 6.75 | 0.0012 | 0.48 | 0.724 |
| Afromedia, Capital Hotel | 2012 | 6.78 | 1 | 1 | 1 | 0 | 0.59 | 6.83 | 0.0011 | 0.36 | 0.572 |
| Afromedia, Capital Hotel | 2013 | 6.27 | 1 | 0 | 1 | 0 | 0.58 | 6.81 | 2.03 | 0.39 | 0.661 |
| Afromedia, Capital Hotel | 2014 | 4.55 | 1 | 0 | 1 | 0 | 0.5 | 6.81 | 0.75 | 0.37 | 0.563 |
| Afromedia, Capital Hotel | 2015 | 4.28 | 1 | 1 | 1 | 0 | 0.51 | 6.85 | 0.34 | 0.45 | 0.547 |
| Afromedia, Capital Hotel | 2016 | 3.87 | 1 | 1 | 1 | 1 | 0.48 | 6.88 | 0.38 | 0.49 | 0.43 |
| Afromedia, Capital Hotel | 2017 | 3.5 | 1 | 1 | 1 | 1 | 0.42 | 6.96 | 0.33 | 0.41 | 0.353 |
| Afromedia, Capital Hotel | 2018 | 3 | 1 | 1 | 1 | 1 | 0.37 | 6.99 | 0.45 | 0.35 | 0.433 |
| Beta Glass Company | 1997 | 0.5 | 0 | 1 | 1 | 0 | 0.18 | 6.35 | 0.31 | 0.35 | 0.387 |
| Beta Glass Company | 1998 | 0.5 | 0 | 1 | 1 | 0 | 0.26 | 6.44 | 0.47 | 0.34 | 0.358 |
| Beta Glass Company | 1999 | 0.5 | 0 | 1 | 1 | 0 | 0.49 | 6.27 | 0.57 | 1.13 | 0.519 |
| Beta Glass Company | 2000 | 0.5 | 0 | 1 | 1 | 0 | 0.52 | 6.23 | 0.63 | 0.5 | 0.466 |
| Beta Glass Company | 2001 | 0.5 | 0 | 1 | 1 | 0 | 0.54 | 6.22 | 0.66 | 0.54 | 0.456 |
| Beta Glass Company | 2002 | 0.5 | 0 | 1 | 1 | 0 | 0.68 | 6.12 | 0.54 | 0.51 | 0.43 |
| Beta Glass Company | 2003 | 0.5 | 0 | 1 | 1 | 0 | 0.8 | 6.05 | 0.31 | 0.5 | 0.414 |
| Beta Glass Company | 2004 | 15.49 | 1 | 1 | 1 | 0 | 0.55 | 7.03 | 0.25 | 0.44 | 0.422 |
| Beta Glass Company | 2005 | 4.35 | 1 | 1 | 1 | 0 | 0.44 | 7.1 | 0.21 | 0.6 | 0.374 |
| Beta Glass Company | 2006 | 5.3 | 0 | 1 | 1 | 0 | 0.46 | 7.15 | 0.48 | 0.57 | 0.533 |
| Beta Glass Company | 2007 | 11.75 | 0 | 1 | 1 | 0 | 0.4 | 7.18 | 0.43 | 0.61 | 0.499 |
| Beta Glass Company | 2008 | 10.39 | 0 | 1 | 1 | 0 | 0.4 | 7.2 | 0.37 | 0.59 | 0.489 |
| Beta Glass Company | 2009 | 9.35 | 0 | 1 | 1 | 0 | 0.41 | 7.23 | 0.35 | 0.51 | 0.445 |
| Beta Glass Company | 2010 | 5 | 1 | 1 | 1 | 0 | 0.43 | 7.3 | 0.24 | 0.49 | 0.376 |
| Beta Glass Company | 2011 | 9.5 | 1 | 1 | 1 | 0 | 0.42 | 7.39 | 0.21 | 0.47 | 0.261 |
| Beta Glass Company | 2012 | 2.23 | 0 | 1 | 1 | 0 | 2.24 | 6.45 | 0.47 | 0.59 | 0.208 |
| Beta Glass Company | 2013 | 4.03 | 0 | 1 | 1 | 0 | 1.3 | 6.84 | 0.49 | 0.58 | 0.253 |
| Beta Glass Company | 2014 | 4.15 | 1 | 1 | 1 | 0 | 1.5 | 6.83 | 0.42 | 0.5 | 0.313 |
| Beta Glass Company | 2015 | 16.91 | 1 | 1 | 1 | 0 | 1.5 | 6.96 | 0.56 | 0.51 | 0.313 |
| Beta Glass Company | 2016 | 6.98 | 1 | 1 | 1 | 0 | 0.39 | 6.98 | 0.63 | 0.48 | 0.315 |
| Beta Glass Company | 2017 | 3.37 | 0 | 1 | 1 | 0 | 0.31 | 7.01 | 1 | 0.42 | 0.249 |
| Beta Glass Company | 2018 | 2.45 | 0 | 1 | 1 | 0 | 0.23 | 7 | 1 | 0.37 | 0.511 |
| Cement Comy Of Northern Nig | 1997 | 2.08 | 1 | 1 | 1 | 1 | 0.19 | 7 | 1 | 0.55 | 0.563 |
| Cement Comy Of Northern Nig | 1998 | 0.5 | 1 | 1 | 1 | 0 | 0.39 | 6.93 | 1 | 0.57 | 0.554 |
| Cement Comy Of Northern Nig | 1999 | 0.5 | 1 | 1 | 1 | 0 | 0.48 | 6.89 | 0.4 | 0.55 | 0.544 |
| Cement Comy Of Northern Nig | 2000 | 0.5 | 1 | 1 | 1 | 0 | 0.48 | 6.94 | 0.52 | 0.44 | 0.517 |
| Cement Comy Of Northern Nig | 2001 | 0.5 | 1 | 1 | 1 | 0 | 0.56 | 7.03 | 0.52 | 0.46 | 0.498 |
| Cement Comy Of Northern Nig | 2002 | 0.5 | 1 | 1 | 1 | 0 | 0.51 | 7.08 | 0.55 | 0.4 | 0.556 |
| Cement Comy Of Northern Nig | 2003 | 0.5 | 1 | 1 | 1 | 0 | 0.61 | 6.93 | 0.53 | 0.4 | 0.641 |
| Cement Comy Of Northern Nig | 2004 | 0.5 | 1 | 1 | 1 | 0 | 0.7 | 6.78 | 0.51 | 0.41 | 0.614 |
| Cement Comy Of Northern Nig | 2005 | 0.5 | 1 | 1 | 1 | 0 | 0.88 | 6.68 | 0.42 | 0.43 | 0.615 |
| Cement Comy Of Northern Nig | 2006 | 7.6 | 0 | 1 | 1 | 0 | 0.7 | 6.97 | 0.43 | 0.42 | 0.429 |
| Cement Comy Of Northern Nig | 2007 | 6.43 | 0 | 0 | 0 | 0 | 0.9 | 7.04 | 0.42 | 0.18 | 0.401 |
| Cement Comy Of Northern Nig | 2008 | 5.71 | 1 | 0 | 1 | 0 | 0.79 | 7.17 | 0.45 | 0.25 | 0.317 |
| Cement Comy Of Northern Nig | 2009 | 4.15 | 1 | 0 | 1 | 0 | 0.71 | 7.19 | 0.44 | 0.39 | 0.267 |
| Cement Comy Of Northern Nig | 2010 | 3.95 | 1 | 0 | 1 | 0 | 0.74 | 7.22 | 0.72 | 0.48 | 0.193 |
| Cement Comy Of Northern Nig | 2011 |  | 1 | 1 | 1 | 0 | 0.94 | 7.26 | 0.65 | 0.48 | 0.226 |
| Cement Comy Of Northern Nig | 2012 |  | 1 | 1 | 1 | 0 | 0.9 | 7.14 | 0.68 | 0.56 | 0.257 |
| Cement Comy Of Northern Nig | 2013 | 3.08 |  |  |  |  | 0.87 | 7.13 | 0.7 | 0.51 | 0.343 |
| Cement Comy Of Northern Nig | 2014 | 34.03 | 1 | 1 | 1 | 1 | 0.57 | 6.37 | 0.72 | 0.61 | 0.466 |
| Cement Comy Of Northern Nig | 2015 | 14.5 | 1 | 1 | 1 | 1 | 0.52 | 6.49 | 0.78 | 0.7 | 0.282 |
| Cement Comy Of Northern Nig | 2016 | 28 | 1 | 1 | 1 | 1 | 0.61 | 6.46 | 0.84 | 0.88 | 0.23 |
| Cement Comy Of Northern Nig | 2017 | 48.45 | 1 | 1 | 1 | 1 | 0.58 | 6.48 | 0.84 | 0.64 | 0.225 |
| Cement Comy Of Northern Nig | 2018 | 37.5 | 1 | 1 | 1 | 1 | 0.62 | 6.49 | 0.84 | 0.75 | 0.24 |
| Cascon Allied Industries | 1997 | 37.6 | 1 | 1 | 1 | 1 | 0.55 | 6.53 | 0.37 | 0.7 | 0.226 |
| Cascon Allied Industries | 1998 | 32 | 1 | 1 | 1 | 1 | 0.54 | 6.69 | 0.32 | 0.9 | 0.288 |
| Cascon Allied Industries | 1999 | 34 | 1 | 1 | 1 | 0 | 0.55 | 6.7 | 0.37 | 0.79 | 0.277 |
| Cascon Allied Industries | 2000 | 1.53 | 0 | 0 | 1 | 0 | 0.84 | 7.11 | 0.38 | 0.71 | 0.245 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cascon Allied Industries | 2001 | 0.63 | 0 | 0 | 1 | 0 | 0.87 | 7.1 | 0.26 | 0.74 | 0.218 |
| Cascon Allied Industries | 2002 | 0.5 | 0 | 0 | 1 | 0 | 0.9 | 7.3 | 0.31 | 0.94 | 0.275 |
| Cascon Allied Industries | 2003 | 0.5 | 0 | 0 | 1 | 0 | 0.77 | 7.34 | 0.22 | 0.9 | 0.12 |
| Cascon Allied Industries | 2004 | 0.5 | 0 | 0 | 1 | 0 | 0.75 | 7.37 | 0.25 | 0.87 | 0.11 |
| Cascon Allied Industries | 2005 | 0.5 | 0 | 0 | 1 | 0 | 0.81 | 7.47 | 0.2 | 0.69 | 0.115 |
| Cascon Allied Industries | 2006 | 0.5 | 0 | 0 | 1 | 0 | 0.79 | 7.58 | 0.25 | 0.65 | 0.15 |
| Cascon Allied Industries | 2007 | 1.29 | 0 | 0 | 1 | 1 | 0.8 | 7.65 | 0.3 | 0.57 | 0.134 |
| Cascon Allied Industries | 2008 | 0.5 | 0 | 1 | 1 | 0 | 0.1 | 6.46 | 0.52 | 0.52 | 0.144 |
| Cascon Allied Industries | 2009 | 0.5 | 0 | 1 | 1 | 0 | 0.14 | 6.49 | 0.52 | 0.61 | 0.132 |
| Cascon Allied Industries | 2010 | 0.5 | 1 | 1 | 1 | 0 | 0.33 | 6.62 | 0.57 | 0.58 | 0.133 |
| Cascon Allied Industries | 2011 | 0.67 | 0 | 1 | 1 | 0 | 0.32 | 6.64 | 0.57 | 0.62 | 0.175 |
| Cascon Allied Industries | 2012 | 0.5 | 0 | 1 | 1 | 0 | 0.32 | 6.67 | 0.56 | 0.55 | 0.141 |
| Cascon Allied Industries | 2013 | 0.5 | 0 | 1 | 0 | 0 | 0.29 | 6.64 | 0.49 | 0.54 | 0.114 |
| Cascon Allied Industries | 2014 | 0.5 | 1 | 1 | 1 | 0 | 0.22 | 6.6 | 0.47 | 0.55 | 0.066 |
| Cascon Allied Industries | 2015 | 0.5 | 1 | 1 | 1 | 1 | 0.22 | 6.61 | 0.51 | 0.73 | 0.063 |
| Cascon Allied Industries | 2016 | 2.21 | 0 | 1 | 1 | 0 | 0.55 | 6.03 | 0.52 | 0.78 | 0.056 |
| Cascon Allied Industries | 2017 | 1.55 | 0 | 1 | 1 | 0 | 0.47 | 5.97 | 0.48 | 0.84 | 0.055 |
| Cascon Allied Industries | 2018 | 1.53 | 0 | 1 | 1 | 0 | 0.46 | 5.97 | 0.59 | 0.87 | 0.057 |
| Courteville Business Solutions | 1997 | 1.78 | 0 | 1 | 1 | 0 | 0.44 | 6.03 | 0.6 | 0.9 | 0.056 |
| Courteville Business Solutions | 1998 | 1.3 | 1 | 1 | 1 | 0 | 0.6 | 6.24 | 0.59 | 0.77 | 0.061 |
| Courteville Business Solutions | 1999 | 1.66 | 1 | 1 | 1 | 0 | 0.62 | 6.29 | 0.7 | 0.75 | 0.051 |
| Courteville Business Solutions | 2000 | 1.8 | 1 | 1 | 1 | 0 | 0.54 | 6.28 | 0.7 | 0.81 | 0.041 |
| Courteville Business Solutions | 2001 | 2.01 | 1 | 1 | 1 | 0 | 0.56 | 6.37 | 0.69 | 0.79 | 0.491 |
| Courteville Business Solutions | 2002 | 0.5 | 0 | 1 | 1 | 0 | 0.57 | 7.5 | 0.75 | 0.8 | 0.506 |
| Courteville Business Solutions | 2003 | 0.5 | 1 | 1 | 1 | 0 | 0.45 | 7.51 | 0.68 | 0.49 | 0.481 |
| Courteville Business Solutions | 2004 | 0.5 | 1 | 1 | 1 | 0 | 0.29 | 7.4 | 0.74 | 0.49 | 0.34 |
| Courteville Business Solutions | 2005 | 0.5 | 1 | 1 | 1 | 0 | 0.47 | 7.36 | 0.75 | 0.55 | 0.348 |
| Courteville Business Solutions | 2006 | 0.5 | 1 | 1 | 1 | 0 | 0.42 | 7.31 | 0 | 0.47 | 0.371 |
| Courteville Business Solutions | 2007 | 0.5 | 1 | 1 | 1 | 0 | 0.31 | 7.29 | 0 | 0.46 | 0.717 |
| Courteville Business Solutions | 2008 | 0.5 | 1 | 1 | 1 | 0 | 0.38 | 7.26 | 0.0019 | 0.44 | 0.512 |
| Courteville Business Solutions | 2009 | 0.5 |  |  |  |  | 0.48 | 7.31 | 0.0017 | 0.6 | 0.416 |
| Courteville Business Solutions | 2010 | 120 | 1 | 1 | 1 | 0 | 0.47 | 8.6 | 0.0017 | 0.62 | 0.407 |
| Courteville Business Solutions | 2011 | 110.77 | 0 | 1 | 1 | 0 | 0.45 | 8.72 | 0.0018 | 0.54 | 0.274 |
| Courteville Business Solutions | 2012 | 128.1 | 0 | 1 | 1 | 0 | 0.38 | 8.83 | 0.002 | 0.56 | 0.287 |
| Courteville Business Solutions | 2013 | 218.99 | 0 | 1 | 1 | 0 | 0.35 | 8.93 | 0.002 | 0.44 | 0.203 |
| Courteville Business Solutions | 2014 | 200 | 0 | 1 | 1 | 1 | 0.4 | 8.99 | 0.002 | 0.46 | 0.261 |
| Courteville Business Solutions | 2015 | 170 | 0 | 1 | 1 | 1 | 0.42 | 9.05 | 0.8526 | 0.34 | 0.246 |
| Courteville Business Solutions | 2016 | 173.99 | 1 | 1 | 1 | 1 | 0.48 | 9.18 | 0.038 | 0.46 | 0.504 |
| Courteville Business Solutions | 2017 | 230 | 1 | 1 | 1 | 0 | 0.53 | 9.22 | 0.0382 | 0.44 | 0.607 |
| Courteville Business Solutions | 2018 | 16 | 0 | 1 | 1 | 0 | 0.34 | 7.79 | 0.0554 | 0.44 | 0.591 |
| Dangote Sugar | 1997 | 4.7 | 0 | 1 | 1 | 0 | 0.46 | 7.86 | 0.0551 | 0.45 | 0.534 |
| Dangote Sugar | 1998 | 6 | 0 | 1 | 1 | 0 | 0.44 | 7.92 | 0.0553 | 0.43 | 0.333 |
| Dangote Sugar | 1999 | 11.7 | 0 | 1 | 1 | 0 | 0.44 | 7.92 | 0.0553 | 0.63 | 1.081 |
| Dangote Sugar | 2000 | 6.35 | 0 | 1 | 1 | 0 | 0.45 | 7.97 | 0.0555 | 0.52 | 0.622 |
| Dangote Sugar | 2001 | 6.11 | 0 | 1 | 1 | 0 | 0.43 | 8.01 | 0.0555 | 0.55 | 0.719 |
| Dangote Sugar | 2002 | 6.03 | 1 | 1 | 1 | 0 | 0.63 | 8.25 | 0.0842 | 0.69 | 0.683 |
| Dangote Sugar | 2003 | 20 | 1 | 1 | 1 | 1 | 0.52 | 8.29 | 0.0939 | 0.78 | 0.659 |
| Dangote Sugar | 2004 | 3.51 | 0 | 1 | 1 | 0 | 0.78 | 6.43 | 0.0933 | 0.75 | 0.675 |
| Dangote Sugar | 2005 | 1.07 | 1 | 1 | 1 | 0 | 0.75 | 6.44 | 0.0933 | 0.75 | 0.648 |
| Dangote Sugar | 2006 | 1.55 | 1 | 1 | 1 | 0 | 0.75 | 6.41 | 0.0933 | 0.74 | 0.671 |
| Dangote Sugar | 2007 | 1.41 | 1 | 1 | 1 | 0 | 0.74 | 6.42 | 0.0933 | 0.74 | 0.69 |
| Dangote Sugar | 2008 | 0.87 | 1 | 1 | 1 | 0 | 0.74 | 6.39 | 0.0933 | 0.71 | 0.726 |
| Dangote Sugar | 2009 | 0.67 | 1 | 1 | 1 | 0 | 0.71 | 6.37 | 0.1353 | 0.79 | 0.347 |
| Dangote Sugar | 2010 | 0.87 | 0 | 0 | 1 | 0 | 0.79 | 6.34 | 0.0197 | 0.82 | 0.123 |
| Dangote Sugar | 2011 | 0.73 | 1 | 1 | 1 | 0 | 0.82 | 6.28 | 0.0197 | 0.92 | 0.108 |
| Dangote Sugar | 2012 | 5.05 | 1 | 1 | 1 | 0 | 0.5 | 6.97 | 0.0204 | 0.62 | 0.136 |
| Dangote Sugar | 2013 | 2.96 | 1 | 1 | 1 | 0 | 0.6 | 7.17 | 0.0204 | 0.5 | 0.425 |
| Dangote Sugar | 2014 | 2.75 | 0 | 1 | 1 | 0 | 0.81 | 7.52 | 0.2373 | 0.6 | 0.186 |
| Dangote Sugar | 2015 | 2.75 | 0 | 1 | 1 | 0 | 0.61 | 7.26 | 0.2373 | 0.81 | 0.334 |
| Dangote Sugar | 2016 | 2.75 | 0 | 1 | 1 | 0 | 0.78 | 7.11 | 0.3656 | 0.61 | 0.45 |
| Dangote Sugar | 2017 | 2.05 | 0 | 1 | 1 | 0 | 0.66 | 7.46 | 0.3658 | 0.78 | 0.209 |
| Dangote Sugar | 2018 | 3.1 | 0 | 1 | 1 | 0 | 0.66 | 7.5 | 0.4348 | 0.66 | 0.229 |
| Eternaoil | 1997 | 4.06 | 1 | 1 | 1 | 1 | 0.74 | 7.68 | 0.9435 | 0.66 | 0.273 |
| Eternaoil | 1998 | 4.97 | 0 | 1 | 1 | 0 | 0.05 | 6.41 | 0.8435 | 0.74 | 0.299 |
| Eternaoil | 1999 | 4.94 | 0 | 1 | 1 | 0 | 0.06 | 6.43 | 0.7785 | 0.29 | 0.436 |
| Eternaoil | 2000 | 3.84 | 0 | 1 | 1 | 0 | 0.14 | 6.49 | 0.779 | 0.29 | 0.497 |
| Eternaoil | 2001 | 2.56 | 0 | 1 | 1 | 0 | 0.28 | 6.56 | 0.779 | 0.34 | 0.653 |
| Eternaoil | 2002 | 3.39 | 0 | 1 | 1 | 0 | 0.36 | 6.67 | 0.7812 | 0.45 | 0.881 |
| Eternaoil | 2003 | 3.04 | 0 | 1 | 1 | 0 | 0.4 | 6.77 | 0.4384 | 0.52 | 0.729 |
| Eternaoil | 2004 | 5 | 0 | 1 | 1 | 0 | 0.49 | 6.84 | 0.3906 | 0.57 | 0.732 |
| Eternaoil | 2005 | 5 |  |  |  |  | 0.47 | 6.8 | 0.3906 | 0.63 | 0.742 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Eternaoil | 2006 | 3.06 | 0 | 1 | 1 | 0 | 0.34 | 6.9 | 0.4505 | 0.62 | 0.29 |
| Eternaoil | 2007 | 0.79 | 0 | 1 | 1 | 0 | 0.45 | 6.97 | 0.4505 | 0.6 | 0.723 |
| Eternaoil | 2008 | 1.06 | 0 | 1 | 1 | 0 | 0.52 | 7.03 | 0.4505 | 0.56 | 0.586 |
| Eternaoil | 2009 | 2.79 | 0 | 1 | 1 | 0 | 0.57 | 7.09 | 0.4459 | 0.74 | 0.581 |
| Eternaoil | 2010 | 3.9 | 1 | 1 | 1 | 0 | 0.63 | 7.2 | 0.4499 | 0.38 | 0.559 |
| Eternaoil | 2011 | 2.5 | 1 | 1 | 1 | 0 | 0.62 | 7.22 | 0.0098 | 0.4 | 0.601 |
| Eternaoil | 2012 | 1.28 | 1 | 1 | 1 | 0 | 0.6 | 7.22 | 0.0098 | 0.4 | 0.64 |
| Eternaoil | 2013 | 3.7 | 1 | 1 | 1 | 0 | 0.56 | 7.24 | 0.0105 | 0.49 | 0.628 |
| Eternaoil | 2014 | 0.73 | 0 | 1 | 1 | 0 | 0.4 | 7.02 | 0.0105 | 0.46 | 0.698 |
| Eternaoil | 2015 | 0.5 | 1 | 1 | 1 | 1 | 0.4 | 7 | 0.0096 | 0.45 | 0.667 |
| Eternaoil | 2016 | 0.5 | 1 | 1 | 1 | 0 | 0.49 | 6.95 | 0.0096 | 0.42 | 0.507 |
| Eternaoil | 2017 | 0.5 | 1 | 1 | 1 | 0 | 0.46 | 6.93 | 0.0096 | 0.47 | 0.438 |
| Eternaoil | 2018 | 0.5 | 1 | 1 | 1 | 0 | 0.45 | 6.93 | 0 | 0.48 | 0.441 |
| Flour Mills Of Nigeria | 1997 | 0.5 | 1 | 1 | 1 | 0 | 0.42 | 6.92 | 0.0033 | 0.68 | 0.5 |
| Flour Mills Of Nigeria | 1998 | 0.5 | 1 | 1 | 1 | 0 | 0.47 | 6.97 | 0 | 0.73 | 0.635 |
| Flour Mills Of Nigeria | 1999 | 0.5 | 0 | 1 | 1 | 0 | 0.48 | 6.99 | 0.0093 | 0.63 | 0.62 |
| Flour Mills Of Nigeria | 2000 | 69 | 0 | 1 | 1 | 0 | 0.63 | 8.16 | 0.004 | 0.69 | 0.604 |
| Flour Mills Of Nigeria | 2001 | 65.45 | 0 | 1 | 1 | 0 | 0.69 | 8.21 | 0.0042 | 0.65 | 0.708 |
| Flour Mills Of Nigeria | 2002 | 65 | 1 | 1 | 1 | 1 | 0.65 | 8.37 | 0.0051 | 0.7 | 0.623 |
| Flour Mills Of Nigeria | 2003 | 87 | 1 | 1 | 1 | 1 | 0.7 | 8.45 | 0.0048 | 0.72 | 0.628 |
| Flour Mills Of Nigeria | 2004 | 39.2 | 1 | 1 | 1 | 1 | 0.72 | 8.47 | 0.0049 | 0.75 | 0.317 |
| Flour Mills Of Nigeria | 2005 | 20.8 | 1 | 1 | 1 | 1 | 0.75 | 8.54 | 0.3453 | 0.72 | 0.169 |
| Flour Mills Of Nigeria | 2006 | 18.49 | 1 | 1 | 1 | 0 | 0.72 | 8.54 | 0.4566 | 0.79 | 0.106 |
| Flour Mills Of Nigeria | 2007 | 29 | 1 | 1 | 1 | 1 | 0.79 | 8.68 | 0.4033 | 0.9 | 0.139 |
| Flour Mills Of Nigeria | 2008 | 21.9 | 1 | 1 | 0 | 0 | 0.63 | 7.84 | 0.5312 | 0.62 | 0.198 |
| Flour Mills Of Nigeria | 2009 | 11.6 | 0 | 1 | 0 | 0 | 0.87 | 7.66 | 0.4247 | 0.63 | 1.219 |
| Flour Mills Of Nigeria | 2010 | 7.73 | 0 | 1 | 1 | 0 | 0.82 | 7.63 | 0.4133 | 0.87 | 0.518 |
| Flour Mills Of Nigeria | 2011 | 108.3 | 0 | 1 | 1 | 0 | 0.6 | 8.02 | 0.4133 | 0.82 | 0.448 |
| Flour Mills Of Nigeria | 2012 | 227.9 | 0 | 1 | 1 | 0 | 0.68 | 8.14 | 0.1422 | 0.6 | 0.569 |
| Flour Mills Of Nigeria | 2013 | 330 | 1 | 1 | 1 | 0 | 0.89 | 8.09 | 0.4682 | 0.68 | 0.467 |
| Flour Mills Of Nigeria | 2014 | 84.43 | 1 | 1 | 1 | 0 | 0.69 | 8.15 | 0.4132 | 0.89 | 0.609 |
| Flour Mills Of Nigeria | 2015 | 43.48 | 1 | 1 | 1 | 0 | 0.62 | 8.17 | 0.3696 | 0.69 | 0.823 |
| Flour Mills Of Nigeria | 2016 | 0.61 | 0 | 1 | 1 | 0 | 0.48 | 6.64 | 0.3395 | 0.62 | 0.756 |
| Flour Mills Of Nigeria | 2017 | 0.5 | 0 | 1 | 1 | 0 | 0.48 | 6.66 | 0.3241 | 0.22 | 0.755 |
| Flour Mills Of Nigeria | 2018 | 0.5 | 0 | 1 | 1 | 0 | 0.55 | 6.64 | 0.342 | 0.31 | 0.75 |
| Capital Oil | 1997 | 0.5 | 0 | 1 | 1 | 0 | 0.63 | 6.66 | 0.342 | 0.48 | 0.699 |
| Capital Oil | 1998 | 0.5 | 0 | 1 | 1 | 0 | 0.73 | 6.65 | 0.0127 | 0.48 | 0.689 |
| Capital Oil | 1999 | 0.5 | 0 | 1 | 1 | 0 | 0.78 | 6.68 | 0.0127 | 0.55 | 0.819 |
| Capital Oil | 2000 | 0.5 | 0 | 1 | 1 | 0 | 0.77 | 6.72 | 0.0127 | 0.63 | 0.707 |
| Capital Oil | 2001 | 0.5 | 0 | 1 | 1 | 0 | 0.92 | 6.68 | 0.0107 | 0.73 | 0.454 |
| Capital Oil | 2002 | 26 | 1 | 1 | 1 | 1 | 0.47 | 7.17 | 0.0003 | 0.78 | 0.498 |
| Capital Oil | 2003 | 23 | 1 | 1 | 1 | 1 | 0.5 | 7.25 | 0.0004 | 0.77 | 0.57 |
| Capital Oil | 2004 | 45.1 | 1 | 1 | 1 | 0 | 0.51 | 7.34 | 0.0004 | 0.85 | 0.494 |
| Capital Oil | 2005 | 68 | 1 | 1 | 1 | 0 | 0.53 | 7.42 | 0.0003 | 0.43 | 0.492 |
| Capital Oil | 2006 | 50 | 1 | 1 | 1 | 0 | 0.54 | 7.45 | 0.0048 | 0.45 | 0.556 |
| Capital Oil | 2007 | 34.2 | 1 | 1 | 1 | 1 | 0.58 | 7.5 | 0.0049 | 0.47 | 0.512 |
| Capital Oil | 2008 | 15.75 | 1 | 1 | 1 | 1 | 0.4 | 7.45 | 0.0044 | 0.5 | 0.491 |
| Capital Oil | 2009 | 21.61 |  |  |  |  | 0.35 | 7.42 | 0.0044 | 0.51 | 0.067 |
| Capital Oil | 2010 | 15.03 | 0 | 1 | 1 | 0 | 0.49 | 5.83 | 0.0044 | 0.53 | 0.082 |
| Capital Oil | 2011 | 13.28 | 0 | 1 | 1 | 0 | 0.41 | 5.79 | 0.0044 | 0.54 | 0.344 |
| Capital Oil | 2012 | 12.98 | 0 | 1 | 1 | 0 | 0.45 | 5.85 | 0.0044 | 0.58 | 0.365 |
| Capital Oil | 2013 | 12.68 | 0 | 1 | 1 | 0 | 0.53 | 5.83 | 0.0044 | 0.4 | 0.377 |
| Capital Oil | 2014 | 12.08 | 0 | 1 | 1 | 0 | 0.49 | 5.82 | 0.0009 | 0.35 | 0.366 |
| Capital Oil | 2015 | 11.48 | 0 | 1 | 1 | 0 | 0.53 | 5.85 | 0.0008 | 0.55 | 0.381 |
| Capital Oil | 2016 |  | 0 | 1 | 1 | 0 | 0.53 | 5.86 | 0.0008 | 0.59 | 0.232 |
| Capital Oil | 2017 | 9.09 | 1 | 1 | 1 | 0 | 0.54 | 5.9 | 0.0007 | 0.49 | 0.238 |
| Capital Oil | 2018 | 190.56 | 1 | 1 | 1 | 0 | 0.56 | 7.89 | 0.0007 | 0.41 | 0.224 |
| Global Spectrum Energy Serv. | 1997 | 250 | 1 | 1 | 1 | 0 | 0.56 | 7.96 | 0.0007 | 0.45 | 0.218 |
| Global Spectrum Energy Serv. | 1998 | 275 | 1 | 1 | 1 | 1 | 0.64 | 8.03 | 0.0007 | 0.53 | 0.172 |
| Global Spectrum Energy Serv. | 1999 | 236 | 1 | 1 | 1 | 1 | 0.62 | 8.08 | 0.0009 | 0.49 | 0.512 |
| Global Spectrum Energy Serv. | 2000 | 168.15 | 1 | 1 | 1 | 1 | 0.66 | 8.12 | 0.0003 | 0.53 | 0.49 |
| Global Spectrum Energy Serv. | 2001 | 120.4 | 1 | 1 | 1 | 1 | 0.6 | 8.09 | 0.2291 | 0.53 | 0.518 |
| Global Spectrum Energy Serv. | 2002 | 83.05 | 1 | 1 | 1 | 1 | 0.7 | 8.14 | 0.2291 | 0.54 | 0.588 |
| Global Spectrum Energy Serv. | 2003 | 94 | 1 | 1 | 1 | 1 | 0.71 | 8.16 | 0.2293 | 0.5 | 0.827 |
| Global Spectrum Energy Serv. | 2004 | 5.1 | 0 | 1 | 1 | 0 | 0.55 | 7.48 | 0.2293 | 0.57 | 0.831 |
| Global Spectrum Energy Serv. | 2005 | 2.31 | 0 | 1 | 1 | 0 | 0.48 | 7.46 | 0.2296 | 0.56 | 0.749 |
| Global Spectrum Energy Serv. | 2006 | 2.09 | 0 | 1 | 1 | 0 | 0.63 | 7.65 | 0.2296 | 0.56 | 0.663 |
| Global Spectrum Energy Serv. | 2007 | 3.67 | 1 | 1 | 1 | 1 | 0.67 | 7.74 | 2.5496 | 0.64 | 0.714 |
| Global Spectrum Energy Serv. | 2008 | 3.46 | 1 | 1 | 1 | 0 | 0.68 | 7.81 | 0.1665 | 0.62 | 0.637 |
| Global Spectrum Energy Serv. | 2009 | 2.05 | 1 | 1 | 1 | 0 | 0.7 | 7.83 | 0.166 | 0.66 | 0.534 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Global Spectrum Energy Serv. | 2010 | 1.3 | 1 | 1 | 1 | 0 | 0.78 | 7.88 | 0.1662 | 0.6 | 0.419 |
| Global Spectrum Energy Serv. | 2011 | 2.1 | 1 | 1 | 1 | 0 | 0.54 | 8.05 | 0.1662 | 0.7 | 0.951 |
| Global Spectrum Energy Serv. | 2012 | 1.8 | 0 | 1 | 1 | 0 | 0.56 | 7.29 | 0.1663 | 0.71 | 0.778 |
| Global Spectrum Energy Serv. | 2013 | 1.7 | 0 | 1 | 1 | 0 | 0.65 | 7.16 | 0.1663 | 0.77 | 0.651 |
| Global Spectrum Energy Serv. | 2014 | 0.8 | 0 | 1 | 1 | 0 | 0.59 | 7.2 | 0 | 0.55 | 0.772 |
| Global Spectrum Energy Serv. | 2015 | 0.78 | 0 | 1 | 1 | 0 | 0.67 | 7.24 | 0.0009 | 0.48 | 0.791 |
| Global Spectrum Energy Serv. | 2016 | 3.7 | 0 | 1 | 1 | 0 | 0.71 | 7.29 | 0.0009 | 0.63 | 1.317 |
| Global Spectrum Energy Serv. | 2017 | 3.13 | 0 | 1 | 1 | 0 | 0.7 | 7.33 | 0.0008 | 0.67 | 0.043 |
| Global Spectrum Energy Serv. | 2018 | 1.78 | 0 | 1 | 1 | 0 | 0.69 | 7.39 | 0.0008 | 0.68 | 0.04 |
| Afrik Pharmaceuticals | 1997 | 1.78 | 0 | 0 | 1 | 0 | 0.49 | 7.57 | 0.0009 | 0.7 | 0.035 |
| Afrik Pharmaceuticals | 1998 | 5.15 | 0 | 1 | 1 | 0 | 0.17 | 5.73 | 0.0009 | 0.78 | 0.189 |
| Afrik Pharmaceuticals | 1999 | 4.9 | 0 | 1 | 1 | 0 | 0.42 | 5.68 | 0.0009 | 0.54 | 0.269 |
| Afrik Pharmaceuticals | 2000 | 4.9 | 0 | 1 | 1 | 0 | 0.39 | 5.64 | 0.0008 | 0.64 | 0.357 |
| Afrik Pharmaceuticals | 2001 | 4.9 | 0 | 1 | 1 | 0 | 0.4 | 5.65 | 0.0047 | 0.62 | 0.371 |
| Afrik Pharmaceuticals | 2002 | 4.43 | 0 | 1 | 1 | 0 | 0.43 | 5.68 | 0.055 | 0.56 | 0.335 |
| Afrik Pharmaceuticals | 2003 | 4.21 | 0 | 1 | 1 | 0 | 0.35 | 5.63 | 0.055 | 0.65 | 0.306 |
| Afrik Pharmaceuticals | 2004 | 3.8 | 0 | 1 | 1 | 0 | 0.41 | 5.67 | 0.0389 | 0.59 | 0.253 |
| Afrik Pharmaceuticals | 2005 | 3.61 | 0 | 1 | 1 | 0 | 0.47 | 5.7 | 0.0389 | 0.67 | 0.132 |
| Afrik Pharmaceuticals | 2006 | 6.42 | 0 | 1 | 1 | 0 | 1.01 | 7 | 0.0354 | 0.71 | 0.093 |
| Afrik Pharmaceuticals | 2007 | 5.7 | 0 | 1 | 1 | 0 | 0.91 | 7.16 | 0.0354 | 0.7 | 0.068 |
| Afrik Pharmaceuticals | 2008 | 16.2 | 0 | 1 | 1 | 0 | 0.91 | 7.16 | 0.0332 | 0.69 | 0.035 |
| Afrik Pharmaceuticals | 2009 | 28.7 | 1 | 1 | 1 | 1 | 0.59 | 7.36 | 0.0708 | 0.49 | 0.034 |
| Afrik Pharmaceuticals | 2010 | 23.37 | 1 | 1 | 1 | 0 | 0.54 | 7.39 | 0 | 0.99 | 0.032 |
| Afrik Pharmaceuticals | 2011 | 15.99 | 1 | 1 | 1 | 0 | 0.6 | 7.48 | 0 | 1.08 | 0.02 |
| Afrik Pharmaceuticals | 2012 | 18.5 | 1 | 1 | 1 | 0 | 0.58 | 7.52 | 0 | 0.17 | 0.018 |
| Afrik Pharmaceuticals | 2013 | 54.5 | 1 | 1 | 1 | 1 | 0.69 | 7.65 | 0.0711 | 0.42 | 0.018 |
| Afrik Pharmaceuticals | 2014 | 1.4 | 0 | 0 | 1 | 0 | 0.86 | 7.4 | 0.0711 | 0.39 | 0.015 |
| Afrik Pharmaceuticals | 2015 | 0.9 | 0 | 1 | 1 | 0 | 0.83 | 7.44 | 0.0711 | 0.4 | 1.499 |
| Afrik Pharmaceuticals | 2016 | 0.55 | 0 | 0 | 1 | 0 | 0.54 | 7.51 | 0.0585 | 0.43 | 1.864 |
| Afrik Pharmaceuticals | 2017 | 0.54 | 0 | 0 | 1 | 0 | 0.61 | 7.59 | 0.0163 | 0.35 | 1.327 |
| Afrik Pharmaceuticals | 2018 | 0.5 | 0 | 1 | 1 | 0 | 0.68 | 7.59 | 0.0163 | 0.41 | 0.821 |
| Interlinked Technologies | 1997 | 0.5 | 0 | 0 | 1 | 0 | 0.9 | 7.53 | 0.0159 | 0.47 | 0.563 |
| Interlinked Technologies | 1998 | 0.5 | 0 | 1 | 1 | 0 | 0.61 | 7.48 | 0.0159 | 1 | 1.072 |
| Interlinked Technologies | 1999 | 0.5 |  |  |  |  | 2.01 | 7.45 | 0.0158 | 1.06 | 0.811 |
| Interlinked Technologies | 2000 | 8.82 | 0 | 1 | 1 | 0 | 0.73 | 7.16 | 0.0158 | 1.01 | 0.931 |
| Interlinked Technologies | 2001 | 5.89 | 0 | 1 | 1 | 0 | 0.71 | 7.03 | 0.0158 | 0.91 | 0.836 |
| Interlinked Technologies | 2002 | 3.4 | 0 | 1 | 1 | 0 | 0.83 | 7.04 | 0.0131 | 0.91 | 0.948 |
| Interlinked Technologies | 2003 | 1.12 | 0 | 1 | 1 | 0 | 0.74 | 6.91 | 0.0159 | 0.59 | 2.966 |
| Interlinked Technologies | 2004 | 0.98 | 0 | 1 | 1 | 0 | 0.68 | 7.01 | 0.0021 | 0.54 | 0.852 |
| Interlinked Technologies | 2005 | 0.88 | 0 | 1 | 1 | 0 | 0.72 | 7.05 | 0.128 | 0.6 | 0.977 |
| Interlinked Technologies | 2006 | 0.66 | 0 | 1 | 1 | 0 | 0.73 | 7.08 | 0.1295 | 0.58 | 0.889 |
| Interlinked Technologies | 2007 | 0.5 | 1 | 1 | 1 | 0 | 0.74 | 7.01 | 0.1246 | 0.69 | 0.597 |
| Interlinked Technologies | 2008 | 50 | 1 | 1 | 1 | 0 | 0.95 | 8.18 | 0.1285 | 0.82 | 0.569 |
| Interlinked Technologies | 2009 | 31.6 | 1 | 1 | 1 | 1 | 0.94 | 8.24 | 0.1278 | 0.76 | 0.666 |
| Interlinked Technologies | 2010 | 34.65 | 1 | 1 | 1 | 0 | 0.92 | 8.25 | 0.3465 | 0.86 | 0.642 |
| Interlinked Technologies | 2011 | 72.29 | 1 | 1 | 1 | 1 | 0.91 | 8.36 | 0.0008 | 0.83 | 0.659 |
| Interlinked Technologies | 2012 | 60.66 | 1 | 1 | 1 | 0 | 0.9 | 8.41 | 0.0008 | 0.54 | 0.704 |
| Interlinked Technologies | 2013 | 42 | 0 | 1 | 1 | 0 | 0.9 | 8.39 | 0.0008 | 0.61 | 0.458 |
| Interlinked Technologies | 2014 | 38.58 | 1 | 1 | 1 | 0 | 0.9 | 8.41 | 0.0008 | 0.68 | 0.499 |
| Interlinked Technologies | 2015 | 28 | 1 | 1 | 1 | 0 | 0.89 | 8.44 | 0.0006 | 0.9 | 0.514 |
| Interlinked Technologies | 2016 | 40.7 | 1 | 1 | 1 | 1 | 0.63 | 8.07 | 0.0005 | 0.61 | 0.583 |
| Interlinked Technologies | 2017 | 43.25 | 1 | 1 | 1 | 1 | 0.63 | 8.18 | 0.0005 | 2.01 | 0.63 |
| John Holt | 2018 | 58.53 | 1 | 1 | 1 | 1 | 0.55 | 8.18 | 0.0006 | 0.71 | 0.509 |
| John Holt | 1997 | 115 | 1 | 1 | 1 | 1 | 0.42 | 8.21 | 0.0117 | 0.8 | 0.229 |
| John Holt | 1998 | 80.5 | 1 | 1 | 1 | 1 | 0.44 | 8.49 | 0.0399 | 0.73 | 0.156 |
| John Holt | 1999 | 88 | 1 | 1 | 1 | 1 | 0.61 | 8.66 | 0.0621 | 0.71 | 0.139 |
| John Holt | 2000 | 40.95 | 1 | 1 | 1 | 1 | 0.5 | 8.7 | 0.1031 | 0.83 | 0.134 |
| John Holt | 2001 | 44.89 | 1 | 1 | 1 |  | 0.73 | 8.76 | 0.1184 | 0.74 | 0.323 |
| John Holt | 2002 | 7.3 | 0 | 1 | 1 | 0 | 0.35 | 6.72 | 0.1506 | 0.68 | 0.352 |
| John Holt | 2003 | 2.95 | 0 | 1 | 1 | 0 | 0.28 | 6.7 | 0.1506 | 0.72 | 0.391 |
| John Holt | 2004 | 1.92 | 1 | 1 | 1 | 0 | 0.22 | 6.66 | 0.1506 | 0.73 | 0.368 |
| John Holt | 2005 | 1.97 | 0 | 1 | 1 | 0 | 0.24 | 6.67 | 0.002 | 0.74 | 0.331 |
| John Holt | 2006 | 1.35 | 1 | 1 | 1 | 1 | 0.14 | 6.61 | 0.2101 | 0.95 | 0.38 |
| John Holt | 2007 | 0.71 | 1 | 1 | 1 | 1 | 0.23 | 6.55 | 0.0012 | 0.95 | 0.301 |
| John Holt | 2008 | 0.77 | 1 | 0 | 1 | 0 | 0.36 | 6.67 | 0.0012 | 0.95 | 0.228 |
| John Holt | 2009 | 0.88 | 1 |  | 1 |  | 0.28 | 6.64 | 0.1325 | 0.94 | 0.203 |
| John Holt | 2010 | 0.65 | 0 | 1 | 1 | 0 | 0.61 | 6.03 | 0.6356 | 0.92 | 0.168 |
| John Holt | 2011 | 0.72 | 0 | 1 | 1 | 0 | 0.68 | 6.19 | 0.6356 | 0.91 | 0.852 |
| John Holt | 2012 | 1.44 | 0 | 1 | 1 | 0 | 0.69 | 6.32 | 0.733 | 0.9 | 1.128 |
| John Holt | 2013 | 4.3 | 0 | 1 | 1 | 0 | 0.53 | 6.56 | 0.3336 | 0.9 | 1.269 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| John Holt | 2014 | 2.28 | 0 | 1 | 1 | 0 | 0.66 | 6.76 | 0.382 | 0.9 | 1.078 |
| John Holt | 2015 | 1.33 | 0 | 1 | 1 | 0 | 0.57 | 6.66 | 0.3259 | 0.89 | 0.84 |
| John Holt | 2016 | 0.84 | 0 | 1 | 1 | 0 | 0.72 | 6.87 | 0.3847 | 0.35 | 0.824 |
| John Holt | 2017 | 0.83 |  |  |  |  | 0.6 | 6.72 | 0.38 | 0.45 | 1.298 |
| John Holt | 2018 | 4.2 | 0 | 1 | 1 | 0 | 0.58 | 6.83 | 0.3852 | 0.63 | 1.191 |
| Lafarge Cement Wapco Nig | 1997 | 1.99 | 0 | 1 | 1 | 0 | 0.55 | 6.85 | 0.3852 | 0.63 | 0.862 |
| Lafarge Cement Wapco Nig | 1998 | 1.55 | 0 | 1 | 1 | 0 | 0.61 | 6.91 | 0.3804 | 0.55 | 0.783 |
| Lafarge Cement Wapco Nig | 1999 | 2.45 | 0 | 1 | 1 | 0 | 0.63 | 6.91 | 0.3999 | 0.42 | 0.137 |
| Lafarge Cement Wapco Nig | 2000 | 1.58 | 1 | 1 | 1 | 0 | 0.62 | 6.91 | 0.3999 | 0.44 | 0.055 |
| Lafarge Cement Wapco Nig | 2001 | 1.1 | 1 | 1 | 1 | 0 | 0.62 | 6.92 | 0.4019 | 0.61 | 0.059 |
| Lafarge Cement Wapco Nig | 2002 | 0.94 | 1 | 1 | 1 | 0 | 0.65 | 6.94 | 0.2947 | 0.5 | 0.073 |
| Lafarge Cement Wapco Nig | 2003 | 2.6 | 0 | 0 | 1 | 0 | 0.57 | 6.88 | 0.2565 | 0.73 | 0.079 |
| Lafarge Cement Wapco Nig | 2004 |  | 0 | 1 | 0 | 0 | 0.26 | 5.25 | 0.2565 | 0.36 | 0.072 |
| Lafarge Cement Wapco Nig | 2005 | 1.02 | 0 | 1 | 0 | 0 | 0.39 | 5.35 | 0.2565 | 0.34 | 0.066 |
| Lafarge Cement Wapco Nig | 2006 | 0.81 | 0 | 1 | 0 | 0 | 0.34 | 5.42 | 0 | 0.35 | 0.07 |
| Lafarge Cement Wapco Nig | 2007 | 2.06 | 0 | 1 | 0 | 0 | 0.41 | 5.51 | 0.0003 | 0.28 | 0.077 |
| Lafarge Cement Wapco Nig | 2008 | 1.48 | 0 | 1 | 0 | 0 | 0.41 | 5.58 | 0.0003 | 0.22 | 0.05 |
| Lafarge Cement Wapco Nig | 2009 | 1.2 | 0 | 1 | 0 | 0 | 0.38 | 5.62 | 0.0003 | 0.24 | 0.788 |
| Lafarge Cement Wapco Nig | 2010 |  | 0 | 1 | 0 | 0 | 0.37 | 5.68 | 0.0004 | 0.14 | 0.292 |
| Lafarge Cement Wapco Nig | 2011 | 0.81 |  |  |  |  | 0.4 | 5.73 | 0.0004 | 0.23 | 0.406 |
| Lafarge Cement Wapco Nig | 2012 | 141 | 0 | 1 | 1 | 0 | 1.3 | 7.17 | 0.0003 | 0.36 | 0.383 |
| Lafarge Cement Wapco Nig | 2013 | 133.91 | 0 | 1 | 1 | 0 | 0.83 | 7.43 | 0.0003 | 0.28 | 0.352 |
| Lafarge Cement Wapco Nig | 2014 | 109.25 | 0 | 1 | 1 | 0 | 0.8 | 7.53 | 0.0001 | 0.64 | 0.348 |
| Lafarge Cement Wapco Nig | 2015 | 118.6 | 0 | 1 | 1 | 0 | 0.77 | 7.61 | 0.1089 | 0.55 | 0.208 |
| Lafarge Cement Wapco Nig | 2016 | 158 | 0 | 1 | 1 | 0 | 0.72 | 7.69 | 0.0998 | 0.61 | 0.145 |
| Lafarge Cement Wapco Nig | 2017 | 160 | 0 | 1 | 1 | 0 | 0.72 | 7.73 | 0.0465 | 0.68 | 0.234 |
| Lafarge Cement Wapco Nig | 2018 | 279 | 0 | 1 | 1 | 0 | 0.65 | 7.79 | 0.0467 | 0.69 | 0.146 |
| Livestock Feeds | 1997 | 194.6 | 1 | 1 | 1 | 0 | 0.63 | 7.87 | 0.0466 | 0.53 | 0.371 |
| Livestock Feeds | 1998 | 10.54 | 0 | 1 | 1 | 0 | 0.27 | 5.74 | 0.0466 | 0.66 | 0.554 |
| Livestock Feeds | 1999 | 9.05 | 0 | 1 | 1 | 0 | 0.25 | 5.76 | 0.0466 | 0.57 | 0.625 |
| Livestock Feeds | 2000 | 3.47 | 0 | 1 | 1 | 0 | 0.26 | 5.77 | 0.0466 | 0.72 | 0.693 |
| Livestock Feeds | 2001 | 1.91 | 0 | 0 | 1 | 1 | 0.22 | 5.72 | 0.6002 | 0.6 | 0.664 |
| Livestock Feeds | 2002 | 1.82 | 0 | 0 | 1 | 0 | 0.26 | 5.65 | 0.6002 | 0.52 | 0.556 |
| Livestock Feeds | 2003 | 1.73 | 0 | 0 | 1 | 1 | 0.47 | 5.63 | 0.6002 | 0.56 | 0.524 |
| Livestock Feeds | 2004 | 1.57 | 0 | 0 | 1 | 1 | 0.65 | 5.62 | 0.6002 | 0.58 | 0.531 |
| Livestock Feeds | 2005 | 0.53 |  |  |  |  | 1.07 | 5.74 | 0.6001 | 0.55 | 0.484 |
| Livestock Feeds | 2006 | 66.56 | 0 | 1 | 1 | 0 | 0.55 | 7.61 | 0.6001 | 0.61 | 0.424 |
| Livestock Feeds | 2007 | 59 | 0 | 1 | 1 | 0 | 0.74 | 7.86 | 0.0001 | 0.63 | 0.537 |
| Livestock Feeds | 2008 | 23.76 | 0 | 1 | 1 | 0 | 0.66 | 7.75 | 0.0001 | 0.62 | 0.586 |
| Livestock Feeds | 2009 | 54.44 | 0 | 1 | 1 | 0 | 0.7 | 7.82 | 0.0713 | 0.62 | 0.328 |
| Livestock Feeds | 2010 | 53.2 | 0 | 1 | 1 | 0 | 0.65 | 7.76 | 0.0941 | 0.65 | 0.476 |
| Livestock Feeds | 2011 | 47.18 | 0 | 1 | 1 | 0 | 0.69 | 7.83 | 0.2832 | 0.57 | 0.257 |
| Livestock Feeds | 2012 | 43.24 | 1 | 1 | 1 | 0 | 0.73 | 7.91 | 0.2832 | 0.86 | 0.212 |
| Livestock Feeds | 2013 | 28 | 1 | 1 | 1 | 0 | 0.63 | 7.79 | 0.2832 | 0.81 | 0.179 |
| Livestock Feeds | 2014 | 0.5 | 0 | 1 | 1 | 0 | 0.17 | 6.65 | 0.2832 | 1.3 | 0.155 |
| Livestock Feeds | 2015 | 0.5 | 0 | 1 | 1 | 0 | 0.26 | 6.7 | 0.2832 | 0.83 | 0.147 |
| Livestock Feeds | 2016 | 0.5 | 0 | 1 | 1 | 0 | 0.31 | 6.74 | 0.2832 | 0.8 | 0.142 |
| Livestock Feeds | 2017 | 0.5 | 0 | 1 | 1 | 0 | 0.52 | 6.72 | 0.0344 | 0.77 | 1.732 |
| Livestock Feeds | 2018 | 0.5 | 0 | 1 | 1 | 0 | 0.66 | 6.68 | 0.0344 | 0.72 | 0.671 |
| DN Tyre & Rubber | 1997 | 0.5 | 0 | 1 | 1 | 0 | 0.73 | 6.68 | 0.0342 | 0.72 | 0.625 |
| DN Tyre & Rubber | 1998 | 0.5 | 0 | 1 | 1 | 0 | 0.87 | 6.66 | 0.0483 | 0.65 | 0.724 |
| DN Tyre & Rubber | 1999 | 0.5 |  |  |  |  | 0.74 | 6.66 | 0.0483 | 0.63 | 0.676 |
| DN Tyre & Rubber | 2000 | 6.39 | 1 | 1 | 1 | 0 | 0.34 | 6.88 | 0.0034 | 0.19 | 0.56 |
| DN Tyre & Rubber | 2001 | 4.01 | 1 | 1 | 1 | 0 | 0.44 | 7 | 0.0035 | 0.25 | 0.641 |
| DN Tyre & Rubber | 2002 | 8 | 1 | 1 | 1 | 0 | 0.38 | 7.03 | 0.003 | 0.27 | 0.744 |
| DN Tyre & Rubber | 2003 | 14.99 | 1 | 1 | 1 | 0 | 0.4 | 7.06 | 0.0998 | 0.25 | 0.822 |
| DN Tyre & Rubber | 2004 | 6.22 | 1 | 1 | 1 | 0 | 0.5 | 7.1 | 0.1099 | 0.26 | 0.82 |
| DN Tyre & Rubber | 2005 | 7.15 | 1 | 1 | 1 | 0 | 0.57 | 7.21 | 0.2035 | 0.22 | 0.163 |
| DN Tyre & Rubber | 2006 | 8.5 | 0 | 1 | 1 | 0 | 0.67 | 7.39 | 0.217 | 0.26 | 0.268 |
| DN Tyre & Rubber | 2007 | 18.5 | 0 | 0 | 1 | 0 | 0.62 | 7.48 | 0.1942 | 0.47 | 1.325 |
| DN Tyre & Rubber | 2008 | 10.2 | 0 | 0 | 1 | 0 | 0.32 | 6.87 | 0.3083 | 0.65 | 0.564 |
| DN Tyre & Rubber | 2009 | 5.14 | 0 | 0 | 1 | 0 | 0.48 | 7 | 0.2322 | 1.07 | 0.303 |
| DN Tyre & Rubber | 2010 | 5.39 | 0 | 1 | 1 | 0 | 0.5 | 7.04 | 0.3065 | 0.83 | 0.384 |
| DN Tyre & Rubber | 2011 | 6.2 | 0 | 1 | 1 | 0 | 0.57 | 7.13 | 0.0005 | 0.99 | 0.308 |
| DN Tyre & Rubber | 2012 | 4.96 | 0 | 0 | 1 | 0 | 0.59 | 7.16 | 0.0005 | 0.55 | 0.329 |
| DN Tyre & Rubber | 2013 | 3.78 | 0 | 1 | 1 | 0 | 0.59 | 7.17 | 0.0005 | 0.74 | 0.275 |
| DN Tyre & Rubber | 2014 | 3.16 | 0 | 1 | 1 | 0 | 0.5 | 7.1 | 0.0005 | 0.66 | 0.213 |
| DN Tyre & Rubber | 2015 | 3.98 | 1 | 1 | 1 | 0 | 0.45 | 7.09 | 0.0005 | 0.7 | 0.918 |
| DN Tyre & Rubber | 2016 | 6.94 | 0 | 1 | 1 | 0 | 0.49 | 6.36 | 0.0108 | 0.65 | 0.89 |
| DN Tyre & Rubber | 2017 | 9.31 | 0 | 1 | 1 | 0 | 0.6 | 6.58 | 0.0103 | 0.69 | 0.987 |
| DN Tyre & Rubber | 2018 | 15.08 | 0 | 1 | 1 | 0 | 0.97 | 6.73 | 0.4376 | 0.73 | 0.961 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Daar Communications | 1997 | 16.83 | 0 | 1 | 1 | 1 | 0.98 | 6.74 | 0.4556 | 0.63 | 0.831 |
| Daar Communications | 1998 | 12.83 | 0 | 1 | 1 | 1 | 0.96 | 6.83 | 0.5331 | 0 | 0.893 |
| Daar Communications | 1999 | 10.47 | 0 | 1 | 1 | 1 | 0.97 | 6.9 | 0.5331 | 0.13 | 0.969 |
| Daar Communications | 2000 | 8.53 | 0 | 1 | 1 | 0 | 0.97 | 7.07 | 0.6381 | 0.17 | 0.959 |
| Daar Communications | 2001 | 6.3 | 1 | 1 | 1 | 0 |  |  | 0.6498 | 0.26 | 0.61 |
| Daar Communications | 2002 | 1.06 | 1 | 1 | 1 | 0 | 0.77 | 6.61 | 0.6498 | 0.31 | 0.318 |
| Daar Communications | 2003 | 1.08 | 1 | 1 | 1 | 0 | 0.67 | 6.49 | 0.6429 | 0.52 | 0.388 |
| Daar Communications | 2004 | 0.98 | 1 | 1 | 1 | 0 | 0.45 | 6.46 | 0.0006 | 0.66 | 0.313 |
| Daar Communications | 2005 | 1.26 | 1 | 1 | 1 | 0 | 0.38 | 6.46 | 0.0005 | 0.73 | 0.441 |
| Daar Communications | 2006 | 0.78 | 1 | 1 | 1 | 0 | 0.41 | 6.44 | 0.0005 | 0.87 | 0.365 |
| Daar Communications | 2007 | 0.89 | 1 | 1 | 1 | 0 | 0.47 | 6.34 | 0.0002 | 0.74 | 0.538 |
| Daar Communications | 2008 | 0.78 | 1 | 1 | 1 | 0 | 0.55 | 6.43 | 0.0001 | 0.49 | 0.585 |
| Daar Communications | 2009 | 0.75 | 1 | 1 | 1 | 1 | 0.65 | 6.36 | 0.0001 | 0.43 | 0.538 |
| Daar Communications | 2010 | 368.55 | 0 | 1 | 1 | 0 | 0.75 | 7.78 | 0.0001 | 0.34 | 0.389 |
| Daar Communications | 2011 | 445.66 | 1 | 1 | 1 | 1 | 0.7 | 7.89 | 0.0001 | 0.44 | 0.383 |
| Daar Communications | 2012 | 700 | 0 | 1 | 1 | 1 | 0.62 | 7.95 | 0.0021 | 0.38 | 0.638 |
| Daar Communications | 2013 | 1200 | 0 | 1 | 1 | 1 | 0.62 | 8.03 | 0.0021 | 0.4 | 0.576 |
| Daar Communications | 2014 | 1011.75 | 0 | 1 | 1 | 1 | 0.66 | 8.03 | 0.0019 | 0.5 | 0.663 |
| Daar Communications | 2015 | 860 | 0 | 1 | 1 | 1 | 0.68 | 8.08 | 0.0017 | 0.57 | 0.78 |
| Daar Communications | 2016 | 810 | 0 | 1 | 1 | 1 | 0.82 | 8.23 | 0.0001 | 0.67 | 0.799 |
| Daar Communications | 2017 | 1555.99 | 1 | 1 | 1 | 1 | 0.69 | 8.17 | 0.0002 | 0.62 | 0.67 |
| Daar Communications | 2018 | 77.1 | 1 | 1 | 1 | 1 | 0.56 | 8.06 | 0.0001 | 0.3 | 0.51 |
| Berger Paints | 1997 | 94.42 | 1 | 1 | 1 | 1 | 0.67 | 8.37 | 0.0002 | 0.31 | 0.476 |
| Berger Paints | 1998 | 147 | 1 | 1 | 1 | 1 | 0.63 | 8.4 | 0.0097 | 0.32 | 0.425 |
| Berger Paints | 1999 | 167.9 | 1 | 1 | 1 | 1 | 0.56 | 8.4 | 0.0097 | 0.48 | 0.518 |
| Berger Paints | 2000 | 165.3 | 1 | 1 | 1 | 1 | 0.51 | 8.54 | 0.0097 | 0.5 | 0.013 |
| Berger Paints | 2001 | 136 | 1 | 1 | 1 | 1 | 0.52 | 8.55 | 0.0097 | 0.57 | 0.014 |
| Berger Paints | 2002 | 147.99 | 1 | 1 | 1 | 1 | 0.55 | 8.56 | 0.0097 | 0.59 | 0.019 |
| Berger Paints | 2003 | 134.9 | 1 | 1 | 1 | 1 | 0.53 | 8.58 | 0.0097 | 0.59 | 0.302 |
| Berger Paints | 2004 | 42.66 | 0 | 1 | 1 | 0 | 0.84 | 6.15 | 0.0097 | 0.5 | 0.175 |
| Berger Paints | 2005 | 36.19 | 0 | 1 | 1 | 0 | 0.71 | 6.01 | 0.0097 | 0.45 | 0.121 |
| Berger Paints | 2006 | 33.96 | 0 | 1 | 1 | 0 | 0.83 | 6.34 | 0.1162 | 1.11 | 0.114 |
| Berger Paints | 2007 | 32.27 | 0 | 1 | 1 | 0 | 0.46 | 6.34 | 0.1245 | 0.83 | 0.096 |
| Berger Paints | 2008 | 31.82 | 0 | 1 | 1 | 0 | 0.6 | 6.49 | 0.0837 | 0.49 | 0.079 |
| Berger Paints | 2009 | 28.3 | 0 | 1 | 1 | 0 | 0.74 | 6.7 | 0.0887 | 0.6 | 0.053 |
| Berger Paints | 2010 | 27.87 | 0 | 1 | 1 | 0 | 0.69 | 6.66 | 0.0789 | 0.97 | 0.067 |
| Berger Paints | 2011 | 23.23 | 0 | 1 | 1 | 0 | 0.76 | 6.77 | 0.069 | 0.98 | 0.058 |
| Berger Paints | 2012 | 39.88 | 0 | 1 | 1 | 0 | 0.53 | 6.41 | 0.069 | 0.96 | 0.119 |
| Berger Paints | 2013 | 21.48 | 0 | 1 | 1 | 0 | 0.62 | 6.62 | 0.0671 | 0.97 | 0.096 |
| Berger Paints | 2014 | 18.38 | 0 | 1 | 1 | 0 | 0.59 | 6.53 | 0.0268 | 0.97 | 0.112 |
| Berger Paints | 2015 | 23.16 | 0 | 1 | 1 | 0 | 0.56 | 6.56 | 0.0205 |  | 0.117 |
| Berger Paints | 2016 | 18.05 | 0 | 1 | 1 | 0 | 0.46 | 6.51 | 0 | 0.5 | 0.119 |
| Berger Paints | 2017 | 8.55 | 0 | 1 | 1 | 0 | 1 | 6.61 | 0 | 0.63 | 0.169 |
| Berger Paints | 2018 | 6.27 | 0 | 0 | 1 | 0 | 0.12 | 6.59 | 0.0247 | 0.77 | 0.229 |
| Neimeth Int Pharm | 1997 | 5.7 | 1 | 0 | 1 | 1 | 0.71 | 6.64 | 0.0182 | 0.67 | 0.212 |
| Neimeth Int Pharm | 1998 | 66 | 1 | 1 | 1 | 1 | 0.71 | 8.51 | 0.0017 | 0.45 | 0.65 |
| Neimeth Int Pharm | 1999 | 22 | 1 | 1 | 1 | 0 | 0.77 | 8.61 | 0.0019 | 0.38 | 0.871 |
| Neimeth Int Pharm | 2000 | 12.35 | 0 | 1 | 1 | 0 | 0.8 | 8.71 | 0.0096 | 0.41 | 0.909 |
| Neimeth Int Pharm | 2001 | 24.25 | 1 | 1 | 1 | 0 | 0.73 | 8.77 | 0.0264 | 0.47 | 0.912 |
| Neimeth Int Pharm | 2002 | 16.11 | 1 | 1 | 1 | 0 | 0.95 | 8.95 | 0.264 | 0.55 | 0.8 |
| Neimeth Int Pharm | 2003 | 5.9 | 1 | 1 | 1 | 0 | 0.95 | 8.98 | 0.0528 | 0.65 | 0.741 |
| Neimeth Int Pharm | 2004 | 4.7 | 1 | 1 | 1 | 1 | 0.81 | 9 | 0.0529 | 0.69 | 0.624 |
| Neimeth Int Pharm | 2005 | 5.99 |  |  | 1 |  | 0.75 | 9.02 | 0.054 | 0.76 | 0.652 |
| Neimeth Int Pharm | 2006 | 15.2 | 0 | 1 | 1 | 0 | 0.32 | 6.94 | 0.054 | 0.75 | 0.589 |
| Neimeth Int Pharm | 2007 | 23.1 | 0 | 1 | 1 | 0 | 0.19 | 7.37 | 0 | 0.7 | 0.427 |
| Neimeth Int Pharm | 2008 | 42.5 | 1 | 1 | 1 | 1 | 0.18 | 7.49 | 0.6643 | 0.62 | 0.609 |
| Neimeth Int Pharm | 2009 | 44 | 1 | 1 | 1 | 1 | 0.25 | 7.48 | 0.7556 | 0.62 | 0.645 |
| Neimeth Int Pharm | 2010 | 25.35 | 1 | 1 | 1 | 1 | 0.25 | 7.49 | 0.7359 | 0.66 | 0.645 |
| Neimeth Int Pharm | 2011 | 30.3 | 0 | 1 | 1 | 0 | 0.4 | 7.3 | 0.7748 | 0.68 | 0.523 |
| Neimeth Int Pharm | 2012 | 40.17 | 0 | 1 | 1 | 0 | 0.31 | 7.39 | 0.4981 | 0.82 | 0.561 |
| Neimeth Int Pharm | 2013 | 67.69 | 1 | 1 | 1 | 1 | 0.22 | 7.5 | 0.4981 | 0.69 | 0.607 |
| Neimeth Int Pharm | 2014 | 3.36 | 0 | 1 | 1 | 0 | 0.4 | 6.2 | 0.4914 | 0.69 | 0.555 |
| Neimeth Int Pharm | 2015 | 0.52 | 0 | 1 | 1 | 0 | 0 | 6.24 | 0.7691 | 0.56 | 0.554 |
| Neimeth Int Pharm | 2016 | 1.96 | 1 | 1 | 1 | 0 | 0.33 | 6.3 | 0.3707 | 0.56 | 0.521 |
| Neimeth Int Pharm | 2017 | 1.9 | 1 | 1 | 1 | 0 | 0.35 | 6.37 | 0.3611 | 0.67 | 0.511 |
| Neimeth Int Pharm | 2018 | 1.54 | 1 | 1 | 1 | 0 | 0.5 | 6.52 | 0.4171 | 0.63 | 0.006 |
| Nigeria Breweries | 1997 | 1.24 | 1 | 1 | 1 | 0 | 0.23 | 6.36 | 0.8432 | 0.56 | 0.041 |
| Nigeria Breweries | 1998 | 0.65 | 1 | 1 | 1 | 0 | 0.28 | 6.39 | 0.8444 | 0.51 | 0.028 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Nigeria Breweries | 1999 | 0.59 | 0 | 0 | 1 | 0 | 0.33 | 6.42 | 0.8444 | 0.52 | 0.092 |
| Nigeria Breweries | 2000 | 4.28 | 0 | 1 | 1 | 0 | 1.68 | 6.21 | 0.7184 | 0.55 | 0.04 |
| Nigeria Breweries | 2001 | 3.5 | 0 | 1 | 1 | 0 | 1.42 | 6.41 | 0.6377 | 0.53 | 0.521 |
| Nigeria Breweries | 2002 | 2.6 | 0 | 1 | 1 | 0 | 0.66 | 6.44 | 0.6127 | 0.9 | 0.357 |
| Nigeria Breweries | 2003 | 1.85 | 1 | 1 | 1 | 0 | 0.67 | 6.4 | 0.7484 | 1.09 | 0.21 |
| Nigeria Breweries | 2004 | 2.14 | 1 | 1 | 1 | 0 | 0.67 | 6.45 | 0.2375 | 0.84 | 0.222 |
| Nigeria Breweries | 2005 | 2.25 | 1 | 1 | 1 | 0 | 0.31 | 6.41 | 0.1333 | 0.71 | 0.171 |
| Nigeria Breweries | 2006 | 1.78 | 1 | 1 | 1 | 0 | 0.25 | 6.37 | 0.0006 | 0.83 | 0.134 |
| Nigeria Breweries | 2007 | 2.25 | 1 | 1 | 1 | 0 | 0.23 | 6.36 | 0.0006 | 0.46 | 0.11 |
| Nigeria Breweries | 2008 | 5.28 | 0 | 1 | 1 | 0 | 1 | 6.19 | 0.0006 | 0.6 | 0.168 |
| Nigeria Breweries | 2009 | 5.11 | 0 | 1 | 1 | 0 | 0.56 | 6.36 | 0.0011 | 0.74 | 0.307 |
| Nigeria Breweries | 2010 | 4.36 | 0 | 0 | 1 | 0 | 0.67 | 6.38 | 0.2406 | 0.69 | 0.167 |
| Nigeria Breweries | 2011 | 5.5 | 0 | 0 | 1 | 0 | 0.59 | 6.34 | 0.2415 | 0.76 | 0.249 |
| Nigeria Breweries | 2012 | 3.4 | 1 | 1 | 1 | 0 | 0.59 | 6.36 | 0.1324 | 0.72 | 0.187 |
| Nigeria Breweries | 2013 | 3.76 | 0 | 0 | 1 | 0 | 0.64 | 6.28 | 0.1288 | 0.72 | 0.223 |
| Nigeria Breweries | 2014 | 1.8 | 0 | 0 | 1 | 0 | 0.6 | 6.24 | 0.1386 | 0.53 | 0.431 |
| Nigeria Breweries | 2015 | 2.2 | 0 | 0 | 1 | 0 | 0.32 | 6.31 | 0.1386 | 0.62 | 0.511 |
| Nigeria Breweries | 2016 | 0.93 | 0 | 1 | 1 | 0 | 1.12 | 5.09 | 0.1386 | 0.59 | 0.553 |
| Nigeria Breweries | 2017 | 0.96 | 0 | 1 | 1 | 0 | 1 | 5.44 | 0.6508 | 0.56 | 0.458 |
| Nigeria Breweries | 2018 | 0.85 | 0 | 1 | 1 | 0 | 0.96 | 5.46 | 0.0195 | 0.46 | 0.483 |
| Nigerian Northen Flour Mill | 1997 | 0.77 | 0 | 1 | 1 | 0 | 1.04 | 5.4 | 0.0195 | 1 | 0.538 |
| Nigerian Northen Flour Mill | 1998 | 10.93 | 0 | 1 | 1 | 0 | 1 | 5.46 | 0.0264 | 0.12 | 0.321 |
| Nigerian Northen Flour Mill | 1999 | 10.93 | 0 | 1 | 1 | 0 | 0.92 | 5.53 | 0.0257 | 0.71 | 0.334 |
| Nigerian Northen Flour Mill | 2000 | 10.93 | 0 | 1 | 1 | 0 | 1.12 | 5.5 | 0.0258 | 0.84 | 0.531 |
| Nigerian Northen Flour Mill | 2001 | 9.88 | 0 | 0 | 1 | 0 | 0.78 | 5.45 | 0.0039 | 0.83 | 0.251 |
| Nigerian Northen Flour Mill | 2002 | 6.85 | 1 | 1 | 1 | 0 | 0.52 | 6.87 | 0.0039 | 0.71 | 0.31 |
| Nigerian Northen Flour Mill | 2003 | 8.67 | 1 | 1 | 1 | 1 | 0.81 | 7.4 | 0.0009 | 0.77 | 0.346 |
| Nigerian Northen Flour Mill | 2004 | 17 | 1 | 1 | 1 | 0 | 0.39 | 7.45 | 0.0016 | 0.8 | 0.835 |
| Nigerian Northen Flour Mill | 2005 | 38.5 | 0 | 1 | 1 | 0 | 0.47 | 7.51 | 0.0013 | 0.73 | 0.803 |
| Nigerian Northen Flour Mill | 2006 | 24.5 | 1 | 1 | 1 | 0 | 0.43 | 7.54 | 0.0017 | 0.95 | 0.804 |
| Nigerian Northen Flour Mill | 2007 | 33 | 1 | 1 | 1 | 0 | 0.45 | 7.74 | 0.0017 | 0.95 | 0.382 |
| Nigerian Northen Flour Mill | 2008 | 40.1 | 1 | 1 | 1 | 0 | 0.37 | 7.92 | 0.0017 | 0.81 | 0.185 |
| Nigerian Northen Flour Mill | 2009 | 68.5 | 1 | 1 | 1 |  | 0.92 | 7.99 | 0.0012 | 0.75 | 0.844 |
| Nigerian Northen Flour Mill | 2010 | 31.5 | 1 | 1 | 1 | 0 | 0.34 | 7.77 | 0.0012 | 0.45 | 1.011 |
| Nigerian Northen Flour Mill | 2011 | 28 | 1 | 1 | 1 | 0 | 0.4 | 7.84 | 0.0012 | 0.45 | 0.318 |
| Nigerian Northen Flour Mill | 2012 | 28 | 1 | 1 | 1 | 0 | 0.33 | 7.81 | 0.3628 | 0.32 | 0.46 |
| Nigerian Northen Flour Mill | 2013 | 37 | 1 | 1 | 1 | 0 | 0.36 | 7.86 | 0.3746 | 0.19 | 0.458 |
| Nigerian Northen Flour Mill | 2014 | 23.8 | 1 | 0 | 1 | 0 | 0.36 | 7.85 | 0.3694 | 0.18 | 0.416 |
| Nigerian Northen Flour Mill | 2015 | 25.7 | 1 | 0 | 1 | 1 | 0.39 | 7.83 | 0.3694 | 0.25 | 0.393 |
| Nigerian Northen Flour Mill | 2016 | 14.5 | 1 | 0 | 1 | 0 | 0.42 | 7.87 | 0.3786 | 0.25 | 0.459 |
| Nigerian Northen Flour Mill | 2017 | 20.6 | 1 | 0 | 1 | 0 | 0.5 | 7.95 | 0.0532 | 0.4 | 0.339 |
| Nigerian Northen Flour Mill | 2018 | 2.88 | 1 | 1 | 1 | 0 | 0.49 | 6.4 | 0.0403 | 0.31 | 0.083 |
| Okomu Oil Palm | 1997 | 2.39 | 1 | 1 | 1 | 0 | 0.44 | 6.44 | 0.3752 | 0.22 | 0.726 |
| Okomu Oil Palm | 1998 | 3 | 1 | 1 | 1 | 0 | 0.43 | 6.46 | 0.0003 | 1.12 | 0.801 |
| Okomu Oil Palm | 1999 | 4.42 | 1 | 1 | 1 | 0 | 0.43 | 6.48 | 0.0003 | 1.52 | 0.456 |
| Okomu Oil Palm | 2000 | 3.94 | 0 | 1 | 1 | 0 | 0.45 | 6.54 | 0.0002 | 1.68 | 0.675 |
| Okomu Oil Palm | 2001 | 4.25 | 0 | 1 | 1 | 0 | 0.46 | 6.58 | 0.0003 | 1.42 | 0.747 |
| Okomu Oil Palm | 2002 | 4.4 | 0 | 1 | 1 | 0 | 0.41 | 6.57 | 0.0002 | 0.66 | 0.952 |
| Okomu Oil Palm | 2003 | 5.12 | 1 | 1 | 1 | 0 | 0.45 | 6.65 | 0.0002 | 0.67 | 0.667 |
| Okomu Oil Palm | 2004 | 8.28 | 0 | 1 | 1 | 0 | 0.51 | 6.67 | 0.0002 | 0.67 | 0.76 |
| Okomu Oil Palm | 2005 | 5.52 | 0 | 1 | 1 | 0 | 0.57 | 6.78 | 0 | 0.31 | 1.876 |
| Okomu Oil Palm | 2006 | 5.42 | 0 | 1 | 1 | 0 | 0.54 | 6.85 | 0 | 0.25 | 0.814 |
| Okomu Oil Palm | 2007 | 5.32 | 0 | 1 | 1 | 0 | 0.63 | 6.91 | 0 | 0.23 | 0.734 |
| Okomu Oil Palm | 2008 | 4.67 | 0 | 0 | 1 | 0 | 0.69 | 6.99 | 0 | 0.46 | 0.81 |
| Okomu Oil Palm | 2009 | 4.16 | 0 | 0 | 1 | 0 | 0.82 | 7.02 | 0 | 0.61 | 0.933 |
| Okomu Oil Palm | 2010 | 3.77 | 0 | 0 | 1 | 0 | 0.68 | 7.15 | 0 | 1.12 | 0.746 |
| Okomu Oil Palm | 2011 | 3.09 |  |  |  |  | 0.79 | 7.11 | 0 | 1 | 0.769 |
| Okomu Oil Palm | 2012 | 2.92 | 0 | 1 | 1 | 0 | 0.75 | 6.9 | 0.5264 | 0.96 | 0.902 |
| Okomu Oil Palm | 2013 | 2.78 | 0 | 1 | 1 | 0 | 0.86 | 6.9 | 0 | 1.04 | 0.835 |
| Okomu Oil Palm | 2014 | 2.65 | 0 | 1 | 1 | 0 | 0.71 | 6.87 | 0.0006 | 1 | 0.78 |
| Okomu Oil Palm | 2015 | 2.52 | 0 | 1 | 1 | 0 | 0.77 | 6.97 | 0.0004 | 0.92 | 0.847 |
| Okomu Oil Palm | 2016 | 2.3 | 0 | 1 | 1 | 0 | 0.82 | 7.01 | 0.0004 | 1.12 | 0.342 |
| Okomu Oil Palm | 2017 | 2.3 | 0 | 1 | 1 | 0 | 0.84 | 7.03 | 0.0004 | 0.78 | 0.382 |
| Okomu Oil Palm | 2018 | 2.3 | 0 | 1 | 1 | 0 | 0.81 | 7.01 | 0.3788 | 0.55 | 0.333 |
| Okomu Oil Palm | 1997 | 1.99 | 1 | 1 | 1 | 0 | 0.76 | 6.98 | 0.3788 | 0.65 | 0.371 |
| Presco | 1998 | 0.52 | 1 | 1 | 1 | 0 | 0.33 | 6.77 | 0.3788 | 0.52 | 0.405 |
| Presco | 1999 | 0.5 | 1 | 1 | 1 | 0 | 0.43 | 6.82 | 0.4602 | 0.81 | 0.338 |
| Presco | 2000 | 0.5 | 1 | 1 | 1 | 0 | 0.44 | 6.78 | 0.0797 | 0.39 | 0.401 |
| Presco | 2001 | 0.5 | 1 | 1 | 1 | 0 | 0.53 | 6.76 | 0.0825 | 0.47 | 0.427 |
| Presco | 2002 | 0.5 | 1 | 1 | 1 | 0 | 0.64 | 6.7 | 0.0625 | 0.43 | 0.451 |
| Presco | 2003 | 0.5 | 1 | 1 | 1 | 0 | 0.66 | 6.71 | 0.0625 | 0.45 | 0.425 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Presco | 2004 | 0.5 | 1 | 1 | 1 | 0 | 0.85 | 6.7 | 0.0625 | 0.37 | 0.353 |
| Presco | 2005 | 0.5 |  |  |  |  | 0.84 | 6.61 | 0.0625 | 0.92 | 0.378 |
| Presco | 2006 | 1.38 | 1 | 1 | 1 | 1 | 0.71 | 5.8 | 0.0625 | 0.35 | 0.339 |
| Presco | 2007 | 1.38 | 1 | 1 | 1 | 1 | 0.76 | 5.81 | 0.0625 | 0.35 | 0.355 |
| Presco | 2008 | 1.32 | 1 | 1 | 1 | 1 | 0.81 | 5.83 | 0.626 | 0.34 | 0.393 |
| Presco | 2009 | 0.87 | 1 | 1 | 1 | 1 | 1.06 | 5.81 | 0.643 | 0.4 | 0.383 |
| Presco | 2010 | 0.73 | 1 | 1 | 1 | 1 | 1.1 | 5.81 | 0.614 | 0.33 | 0.465 |
| Presco | 2011 | 0.61 | 0 | 1 | 1 | 1 | 0.85 | 5.91 | 0.611 | 0.36 | 0.346 |
| Presco | 2012 | 0.52 | 1 | 1 | 1 | 1 | 1.28 | 5.72 | 0.346 | 0.36 | 0.313 |
| Presco | 2013 | 0.5 | 1 | 1 | 1 | 1 | 1.38 | 5.69 | 0.957 | 0.39 | 0.292 |
| Presco | 2014 | 16.8 | 1 | 1 | 1 | 0 | 0.61 | 7.85 | 0.517 | 0.42 | 0.243 |
| Presco | 2015 | 5 | 0 | 1 | 1 | 0 | 0.65 | 7.94 | 0.531 | 0.5 | 0.283 |
| Presco | 2016 | 8.2 | 0 | 1 | 1 | 0 | 0.67 | 7.89 | 0.459 | 0.4 | 0.35 |
| Presco | 2017 | 10.25 | 0 | 1 | 1 | 0 | 0.73 | 7.82 | 0.464 | 0.46 | 0.296 |
| Presco | 2018 | 4.55 | 0 | 1 | 1 | 0 | 0.82 | 7.74 | 0.313 | 0.49 | 0.231 |
| Redstar Express | 1997 | 1.13 | 0 | 1 | 1 | 0 | 1.06 | 7.69 | 0.318 | 0.44 | 0.306 |
| Redstar Express | 1998 | 4.25 | 0 | 1 | 1 | 0 | 0.69 | 7.9 | 0.286 | 0.43 | 0.269 |
| Redstar Express | 1999 | 12.15 |  |  |  |  | 0.71 | 8.11 | 0.295 | 0.43 | 0.193 |
| Redstar Express | 2000 | 234 | 0 | 1 | 1 | 0 | 0.84 | 7.74 | 0.622 | 0.45 | 0.21 |
| Redstar Express | 2001 | 188.1 | 0 | 1 | 1 | 0 | 0.83 | 7.77 | 0.683 | 0.46 | 0.173 |
| Redstar Express | 2002 | 120.57 | 0 | 1 | 1 | 0 | 0.85 | 7.88 | 0.541 | 0.41 | 0.205 |
| Redstar Express | 2003 | 170 | 0 | 1 | 1 | 0 | 0.83 | 7.9 | 0.649 | 0.45 | 0.2 |
| Redstar Express | 2004 | 142.5 | 0 | 1 | 1 | 0 | 0.85 | 7.98 | 0.779 | 0.6 | 0.254 |
| Redstar Express | 2005 | 147.01 | 0 | 1 | 1 | 0 | 0.81 | 7.92 | 0.673 | 0.51 | 0.25 |
| Redstar Express | 2006 | 299 | 0 | 1 | 1 | 0 | 0.83 | 8.14 | 0.686 | 0.51 | 0.709 |
| Redstar Express | 2007 | 229.95 | 1 | 1 | 1 | 0 | 0.74 | 8.03 | 0.609 | 0.57 | 0.507 |
| Redstar Express | 2008 | 4.76 | 0 | 1 | 1 | 0 | 1.04 | 7.12 | 0.566 | 0.54 | 0.935 |
| Redstar Express | 2009 | 4.32 | 0 | 1 | 1 | 0 | 0.8 | 7.06 | 0.49 | 0.63 | 0.614 |
| Redstar Express | 2010 | 4.53 | 0 | 1 | 1 | 0 | 0.84 | 7.05 | 0.345 | 0.69 | 0.457 |
| Redstar Express | 2011 | 4.08 | 1 | 1 | 1 | 0 | 0.84 | 7.04 | 0.316 | 0.82 | 0.42 |
| Redstar Express | 2012 | 3.51 | 0 | 1 | 1 | 0 | 0.89 | 7.03 | 0.323 | 0.68 | 0.516 |
| Redstar Express | 2013 | 3.51 | 0 | 1 | 1 | 0 | 1.14 | 7.02 | 0.321 | 0.79 | 0.51 |
| Redstar Express | 2014 | 3.59 | 0 | 1 | 1 | 0 | 1.66 | 7.02 | 0.285 | 0.79 | 0.559 |
| Redstar Express | 2015 | 3.67 | 1 | 1 | 1 | 0 | 2.03 | 7 | 0.291 | 0.76 | 0.597 |
| Redstar Express | 2016 | 0.5 | 1 | 1 | 1 | 0 | 0.38 | 7.63 | 0.298 | 0.75 | 0.561 |
| Redstar Express | 2017 | 0.57 | 0 | 1 | 1 | 0 | 0.33 | 7.79 | 0.272 | 0.86 | 0.546 |
| Redstar Express | 2018 | 1.05 | 0 | 1 | 1 | 0 | 0.45 | 7.88 | 0.274 | 0.71 | 0.895 |
| Studio Press Nig | 1997 | 4.35 | 0 | 1 | 1 | 0 | 0.31 | 8.17 | 0.156 | 0.77 | 0.844 |
| Studio Press Nig | 1998 | 3.25 | 0 | 1 | 1 | 0 | 0.47 | 8.23 | 0.445 | 0.82 | 0.877 |
| Studio Press Nig | 1999 | 1.52 | 0 | 1 | 1 | 0 | 0.57 | 8.31 | 0.425 | 0.84 | 0.778 |
| Studio Press Nig | 2000 | 0.87 | 1 | 1 | 1 | 0 | 0.63 | 8.37 | 0.496 | 0.81 | 0.841 |
| Studio Press Nig | 2001 | 1.46 |  |  |  |  | 0.66 | 8.46 | 0.55 | 0.76 | 0.789 |
| Studio Press Nig | 2002 | 6.4 | 0 | 1 | 1 | 0 | 0.25 | 5.71 | 0.597 | 0.27 | 0.922 |
| Studio Press Nig | 2003 | 3.45 | 0 | 1 | 1 | 0 | 0.21 | 5.76 | 0.636 | 0.37 | 0.854 |
| Studio Press Nig | 2004 | 2.78 | 0 | 1 | 1 | 0 | 0.48 | 5.78 | 0.568 | 0.33 | 0.561 |
| Studio Press Nig | 2005 | 1.17 | 0 | 1 | 1 | 0 | 0.43 | 5.82 | 0.598 | 0.43 | 0.93 |
| Studio Press Nig | 2006 | 1.23 | 0 | 1 | 1 | 0 | 0.37 | 5.8 | 0.583 | 0.44 | 0.685 |
| Studio Press Nig | 2007 | 1.13 | 0 | 1 | 1 | 0 | 0.35 | 5.82 | 0.412 | 0.53 | 0.696 |
| Studio Press Nig | 2008 | 1 | 0 | 1 | 1 | 0 | 0.24 | 5.75 | 0.829 | 0.64 | 0.626 |
| Studio Press Nig | 2009 | 0.78 | 1 | 1 | 1 | 0 | 0.21 | 5.88 | 0.381 | 0.66 | 0.612 |
| Studio Press Nig | 2010 | 3.59 | 1 | 1 | 1 | 0 | 0.42 | 6.15 | 0.304 | 0.85 | 0.72 |
| Studio Press Nig | 2011 | 2.94 | 1 | 1 | 1 | 0 | 0.56 | 6.16 | 0.526 | 0.84 | 0.745 |
| Studio Press Nig | 2012 | 2.29 | 1 | 1 | 1 | 0 | 0.63 | 6.23 | 0.424 | 0.65 | 0.716 |
| Studio Press Nig | 2013 | 2.07 | 1 | 1 | 1 | 0 | 1 | 6.22 | 0.484 | 0.67 | 0.547 |
| Studio Press Nig | 2014 | 1.86 | 1 | 1 | 1 | 0 | 1 | 6.24 | 0.474 | 0.71 | 0.81 |
| Studio Press Nig | 2015 | 1.69 | 1 | 1 | 1 | 0 | 1 | 6.26 | 0.41 | 0.76 |  |
| Studio Press Nig | 2016 | 1.3 | 1 | 1 | 1 | 0 | 1 | 6.29 | 0.48 | 0.81 | 0.513 |
| Studio Press Nig | 2017 | 1.01 | 0 | 1 | 1 | 0 | 0.4 | 6.27 | 0.354 | 1.06 | 0.646 |
| Studio Press Nig | 2018 | 37.51 | 1 | 1 | 1 | 0 | 0.55 | 8.01 | 0.282 | 1.1 | 0.666 |
| Seplat Petroleum Development | 1997 | 31.18 | 1 | 1 | 1 | 0 | 0.53 | 8.08 | 0.254 | 0.85 | 0.508 |
| Seplat Petroleum Development | 1998 | 42 | 1 | 1 | 1 | 0 | 0.51 | 8.09 | 0.271 | 1.28 | 0.387 |
| Seplat Petroleum Development | 1999 | 67 | 1 | 1 | 1 | 0 | 0.42 | 8.09 | 0.233 | 1.38 | 0.4 |
| Seplat Petroleum Development | 2000 | 34 | 1 | 0 | 1 | 0 | 0.43 | 8.12 | 0.225 | 0.64 | 0.42 |
| Seplat Petroleum Development | 2001 | 20.75 | 1 | 1 | 1 | 1 | 0.42 | 8.11 | 0.21 | 0.55 | 0.509 |
| Seplat Petroleum Development | 2002 | 16.81 | 1 | 1 | 1 | 1 | 0.45 | 8.14 | 0.205 | 0.61 | 0.394 |
| Seplat Petroleum Development | 2003 | 16.9 |  |  |  |  | 0.44 | 8.12 | 0.186 | 0.65 | 0.317 |
| Seplat Petroleum Development | 2004 | 26.9 | 1 | 1 | 1 | 0 | 0.68 | 7.41 | 0.17 | 0.67 | 0.303 |
| Seplat Petroleum Development | 2005 | 29 | 1 | 1 | 1 | 0 | 0.7 | 7.51 | 0.001 | 0.73 | 0.297 |
| Seplat Petroleum Development | 2006 | 46.5 | 1 | 1 | 1 | 0 | 0.72 | 7.56 | 0.393 | 0.82 | 0.299 |
| Seplat Petroleum Development | 2007 | 53.8 | 1 | 1 | 1 | 0 | 0.78 | 7.64 | 0.361 | 1.06 | 0.321 |
| Seplat Petroleum Development | 2008 | 35.8 | 1 | 1 | 1 | 1 | 0.84 | 7.66 | 0.314 | 0.69 | 0.274 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Seplat Petroleum Development | 2009 | 43.25 | 1 | 1 | 1 | 1 | 0.84 | 7.7 | 0.432 | 0.71 | 0.276 |
| Seplat Petroleum Development | 2010 | 35 | 1 | 1 | 1 | 1 | 0.84 | 7.86 | 0.314 | 0.83 | 0.242 |
| Seplat Petroleum Development | 2011 | 41 | 1 | 1 | 1 | 1 | 0.37 | 8.08 | 0.324 | 0.86 | 0.302 |
| Seplat Petroleum Development | 2012 | 6.8 | 1 | 1 | 1 | 0 | 0.38 | 6.31 | 0.419 | 0.84 | 0.208 |
| Seplat Petroleum Development | 2013 | 3.4 | 1 | 1 | 1 | 0 | 0.26 | 6.38 | 0.485 | 0.83 | 0.999 |
| Seplat Petroleum Development | 2014 | 4.47 | 1 | 1 | 1 | 0 | 0.31 | 6.43 | 0.264 | 0.85 | 1.078 |
| Seplat Petroleum Development | 2015 | 4.18 | 1 | 1 | 1 | 1 | 0.22 | 6.45 | 0.263 | 0.83 | 0.75 |
| Seplat Petroleum Development | 2016 | 4.22 | 1 | 1 | 1 | 1 | 0.25 | 6.47 | 0.581 | 0.85 | 0.785 |
| Seplat Petroleum Development | 2017 | 6 | 1 | 1 | 1 | 1 | 0.2 | 6.45 | 0.5504 | 0.81 | 0.88 |
| Seplat Petroleum Development | 2018 | 4.24 | 0 | 1 | 1 | 0 | 0.25 | 6.5 | 0.5485 | 0.83 | 0.86 |
| SCOA Nigeria | 1997 | 2.28 | 1 | 0 | 1 | 1 | 0.3 | 6.55 | 0.5485 | 0.74 | 0.839 |
| SCOA Nigeria | 1998 | 16.51 | 1 | 1 | 1 | 0 | 0.57 | 7.84 | 0.8965 | 0.99 | 0.84 |
| SCOA Nigeria | 1999 | 12 | 1 | 1 | 1 | 1 | 0.57 | 7.84 | 0.164 | 1.04 | 0.831 |
| SCOA Nigeria | 2000 | 11.8 | 1 | 1 | 1 | 0 | 0.56 | 7.85 | 0.1654 | 1.04 | 0.76 |
| SCOA Nigeria | 2001 | 19 | 1 | 1 | 1 | 0 | 0.49 | 7.82 | 0.1691 | 0.8 | 0.065 |
| SCOA Nigeria | 2002 | 9.5 | 1 | 1 | 1 | 0 | 0.47 | 7.83 | 0.1691 | 0.84 | 0.067 |
| SCOA Nigeria | 2003 | 6.09 | 1 | 1 | 1 | 1 | 0.51 | 7.86 | 0.0038 | 0.84 | 0.225 |
| SCOA Nigeria | 2004 | 2.62 | 1 | 1 | 1 | 0 | 0.52 | 7.85 | 0.0033 | 0.89 | 0.575 |
| SCOA Nigeria | 2005 | 2.79 |  |  |  |  | 0.48 | 7.81 | 0.0033 | 1.14 | 0.41 |
| SCOA Nigeria | 2006 | 6.66 | 0 | 1 | 1 | 0 | 0.59 | 6.77 | 0.0006 | 1.66 | 1.172 |
| SCOA Nigeria | 2007 | 5.06 | 0 | 1 | 1 | 0 | 0.7 | 7.23300858 | 0.031 | 1.381 | 1.831 |
| SCOA Nigeria | 2008 | 3.66 | 1 | 1 | 1 | 0 | 0.7 | 7.33540508 | 23.05014021 | 1.599809707 | 0.571428571 |
| SCOA Nigeria | 2009 | 4.9 | 1 | 1 | 1 | 0 | 0.69 | 7.3798892 | 19.41614101 | 1.852132363 | 0.5 |
| SCOA Nigeria | 2010 | 4.03 | 1 | 1 | 1 | 0 | 0.75 | 7.50351628 | 22.27467162 | 1.757215084 | 0.571428571 |
| SCOA Nigeria | 2011 | 5.41 | 1 | 1 | 1 | 0 | 0.68 | 7.52411637 | 19.15920269 | 1.312911257 | 0.5 |
| SCOA Nigeria | 2012 | 2.4 | 1 | 1 | 1 | 0 | 0.74 | 7.60457153 | 21.08529637 | 1.329438987 | 0.571428571 |
| SCOA Nigeria | 2013 | 3 | 1 | 1 | 1 | 0 | 0.73 | 7.6467017 | 26.55343018 | 1.435908932 | 0.5 |
| SCOA Nigeria | 2014 | 1.06 | 1 | 1 | 1 | 0 | 0.79 | 7.710711 | 20.25335418 | 1.366770634 | 0.571428571 |
| SCOA Nigeria | 2015 | 1.04 | 1 | 1 | 1 | 0 | 0.77 | 7.74712588 | 22.71035572 | 1.497119729 | 0.357142857 |
| SCOA Nigeria | 2016 | 1.01 | 0 | 1 | 1 | 0 | 0.76 | 7.83050424 | 37.13263463 | 1.83651308 | 0.357142857 |
| SCOA Nigeria | 2017 | 0.98 | 0 | 1 | 1 | 0 | 0.69 | 7.03407186 | 29.77312677 | 2.355136309 | 0.357142857 |
| SCOA Nigeria | 2018 | 1.03 | 0 | 1 | 1 | 0 | 0.65 | 7.03407186 | 10.42809793 | 0.566146049 | 0.285714286 |
| Trans-Nationwide Express | 1997 | 0.99 | 1 | 1 | 1 | 1 | 0.63 | 7.13949403 | 10.04904702 | 1.215697474 | 0.285714286 |
| Trans-Nationwide Express | 1998 | 0.92 | 1 | 1 | 1 | 1 | 0.85 | 7.21571366 | 13.00005709 | 2.673963006 | 0.285714286 |
| Trans-Nationwide Express | 1999 | 1.06 | 1 | 1 | 1 | 0 | 0.52 | 7.29127727 | 11.98017012 | 0.982366831 | 0.5 |
| Trans-Nationwide Express | 2000 | 1.47 | 1 | 1 | 1 | 0 | 0.51 | 7.32158555 | 6.924911806 | 0.869377265 | 0.5 |
| Trans-Nationwide Express | 2001 | 1.09 | 1 | 1 | 1 | 0 | 0.55 | 7.3576449 | 3.195430219 | 0.661407514 | 0.5 |
| Trans-Nationwide Express | 2002 | 0.87 | 1 | 1 | 1 | 0 | 0.52 | 7.31161879 | 2.778064272 | 0.607850329 | 0.5 |
| Trans-Nationwide Express | 2003 | 0.99 | 1 | 1 | 1 | 1 | 0.57 | 7.37586325 | 7.021695565 | 0.704732341 | 0.5 |
| Trans-Nationwide Express | 2004 | 0.98 | 1 | 1 | 1 | 0 | 0.6 | 7.35221929 | 1.517598707 | 0.730664486 | 0.785714286 |
| Trans-Nationwide Express | 2005 | 0.93 | 1 | 1 | 1 | 0 | 0.69 | 5.97502352 | -1.94683039 | 0.730696803 | 0.571428571 |
| Trans-Nationwide Express | 2006 | 0.95 | 1 | 1 | 1 | 1 | 0.85 | 5.98715258 | 19.01266477 | 1.014425195 | 0.142857143 |
| Trans-Nationwide Express | 2007 | 0.93 | 0 | 0 | 1 | 0 | 0.76 | 6.11902251 | 20.52990154 | 1.797551839 | 0.142857143 |
| Trans-Nationwide Express | 2008 | 0.90 | 0 | 1 | 1 | 0 | 0.73 | 6.1710858 | 13.69432332 | 1.896404071 | 0 |
| Trans-Nationwide Express | 2009 | 1.61 | 0 | 1 | 1 | 0 | 0.76 | 6.30693623 | 20.23806439 | 1.731810055 | 0.142857143 |
| Trans-Nationwide Express | 2010 | 1.75 | 0 | 1 | 1 | 0 | 0.79 | 6.37373822 | 28.1783313 | 1.642176005 | 0.142857143 |
| Trans-Nationwide Express | 2011 | 1.97 | 0 | 1 | 1 | 0 | 0.79 | 6.45053793 | 13.93568919 | 1.300251132 | 0.285714286 |
| Trans-Nationwide Express | 2012 | 1.06 | 0 | 1 | 1 | 0 | 0.81 | 6.54999132 | 13.4155206 | 1.08576564 | 0.285714286 |
| Trans-Nationwide Express | 2013 | 1.63 | 0 | 1 | 1 | 0 | 0.83 | 6.57885321 | 7.312964931 | 1.07831879 | 0.285714286 |
| Trans-Nationwide Express | 2014 | 1.75 | 1 | 1 | 1 | 1 | 0.92 | 6.57210103 | 11.26995303 | 1.01604328 | 0.285714286 |
| Trans-Nationwide Express | 2015 | 1.30 | 0 | 1 | 1 | 0 | 0.3 | 8.24192947 | -3.5728786 | 0.931801027 | 0.285714286 |
| Trans-Nationwide Express | 2016 | 1.50 | 0 | 1 | 1 | 0 | 0.3 | 8.51668764 | 2.551228312 | 0.941808643 | 0.285714286 |
| Trans-Nationwide Express | 2017 | 1.32 | 0 | 1 | 1 | 0 | 0.27 | 9.01935246 | 21.43196181 | 1.315389848 | 0.285714286 |
| Trans-Nationwide Express | 2018 | 1.00 | 0 | 1 | 1 | 0 | 0.38 | 8.84122424 | 9.224391748 | 0.98467992 | 0.5 |
| Uac Of Nig | 1997 | 1.54 | 0 | 1 | 1 | 0 | 0.46 | 8.9057008 | 2.614950605 | 0.913417287 | 0.5 |
| Uac Of Nig | 1998 | 5.02 | 0 | 1 | 1 | 0 | 0.55 | 9.21192194 | 6.31128024 | 0.961862081 | 0.5 |
| Uac Of Nig | 1999 | 14.87 | 0 | 1 | 1 | 0 | 0.5 | 9.24191282 | 7.804582621 | 0.94927214 | 1 |
| Uac Of Nig | 2000 | 1.43 | 1 | 1 | 1 | 1 | 0.29 | 9.26374634 | 18.60607305 | 0.969449723 | 1 |
| Uac Of Nig | 2001 | 1.13 | 0 | 1 | 1 | 0 | 0.65 | 9.32312024 | 15.33758859 | 1.002419216 | 0.714285714 |
| Uac Of Nig | 2002 | 1.33 | 1 | 1 | 1 | 0 | 0.5 | 9.41352275 | 15.5231768 | 0.962879878 | 0.785714286 |
| Uac Of Nig | 2003 | 1.09 | 1 | 1 | 1 | 0 | 0.41 | 6.93972662 | 17.90878474 | 0.915946667 | 0.785714286 |
| Uac Of Nig | 2004 | 0.90 | 1 | 1 | 1 | 0 | 0.43 | 7.11292072 | -11.3337232 | 1.998962702 | 0.285714286 |
| Uac Of Nig | 2005 | 3.78 | 1 | 1 | 1 | 0 | 0.37 | 7.31883261 | -5.19098584 | 2.369454236 | 0.285714286 |
| Uac Of Nig | 2006 | 4.05 | 1 | 1 | 1 | 0 | 0.38 | 7.39627301 | 5.460872657 | 1.655922586 | 0.285714286 |
| Uac Of Nig | 2007 | 1.68 | 1 | 1 | 1 | 0 | 0.19 | 7.46560836 | 7.810054561 | 0.707148225 | 0.5 |
| Uac Of Nig | 2008 | 2.67 |  |  |  |  | 0.29 | 7.45246595 | 7.968757197 | 0.834717397 | 0.5 |
| Uac Of Nig | 2009 | 2.67 | 0 | 1 | 1 | 0 | 0.53 | 7.54412611 | -0.29545261 | 0.903346787 | 0.285714286 |
| Uac Of Nig | 2010 | 1.89 | 1 | 1 | 1 | 0 | 0.63 | 7.62429071 | 11.61094176 | 0.775191411 | 0.5 |
| Uac Of Nig | 2011 | 2.25 | 0 | 1 | 1 | 0 | 0.56 | 7.76595224 | -6.99154716 | 0.882640311 | 0.285714286 |
| Uac Of Nig | 2012 | 1.92 | 1 | 1 | 1 | 0 | 0.6 | 7.90377434 | 19.49674705 | 0.895717477 | 0.214285714 |
| Uac Of Nig | 2013 | 1.64 | 0 | 1 | 1 | 0 | 0.71 | 5.5525575 | 12.75777382 | 0.955308611 | 0.285714286 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Uac Of Nig | 2014 | 2.69 | 1 | 1 | 1 | 0 | 0.68 | 5.62569718 | 59.94379907 | 1.329970609 | 0.142857143 |
| Uac Of Nig | 2015 | 2.78 | 1 | 1 | 1 | 0 | 0.67 | 5.81293474 | 59.96344423 | 1.9389402 | 0.5 |
| Uac Of Nig | 2016 | 1.70 | 0 | 0 | 0 | 0 | 0.57 | 5.83705471 | 45.31547302 | 5.150706427 | 0.5 |
| Uac Of Nig | 2017 | 1.80 | 1 | 1 | 1 | 0 | 0.47 | 5.93088793 | 33.01198984 | 4.813395813 | 0.5 |
| Uac Of Nig | 2018 | 0.64 | 1 | 1 | 1 | 0 | 0.4 | 6.08878687 | 20.39948053 | 3.834778632 | 0.285714286 |
| University Press | 1997 | 1.48 | 1 | 1 | 1 | 0 | 0.38 | 6.20558218 | 8.217563235 | 2.49798873 | 0.5 |
| University Press | 1998 | 1.48 | 1 | 1 | 1 | 0 | 0.37 | 6.22662439 | 4.777856976 | 1.854453356 | 0.5 |
| University Press | 1999 | 1.45 | 1 | 1 | 1 | 0 | 0.41 | 6.24381883 | 14.15011068 | 1.803006952 | 0.5 |
| University Press | 2000 | 1.37 | 1 | 1 | 1 | 0 | 0.34 | 6.26489429 | 15.3101705 | 1.677986298 | 0.5 |
| University Press | 2001 | 1.32 | 1 | 1 | 1 | 0 | 0.4 | 7.26657119 | 7.045847185 | 1.567663064 | 0.571428571 |
| University Press | 2002 | 1.27 | 1 | 1 | 1 | 0 | 0.44 | 7.34694214 | 29.07089499 | 3.572613155 | 0.357142857 |
| University Press | 2003 | 1.15 | 1 | 1 | 1 | 1 | 0.36 | 7.39769637 | 14.95048117 | 4.845331542 | 0.5 |
| University Press | 2004 | 1.17 | 1 | 1 | 1 | 0 | 0.35 | 7.40855377 | 16.17799483 | 3.161930144 | 0.285714286 |
| University Press | 2005 | 1.41 | 1 | 1 | 1 | 0 | 0.39 | 7.44909446 | 7.18039555 | 1.412566006 | 0.5 |
| University Press | 2006 | 1.24 | 0 | 1 | 1 | 1 | 0.31 | 7.81432642 | 18.60920056 | 1.872050506 | 0.785714286 |
| University Press | 2007 | 1.06 | 0 | 1 | 1 | 1 | 0.32 | 7.82817786 | 6.176230445 | 1.044545903 | 0.785714286 |
| University Press | 2008 | 1.17 | 0 | 1 | 1 | 1 | 0.34 | 7.82881153 | 6.311008075 | 0.617962557 | 0.785714286 |
| University Press | 2009 | 1.13 | 0 | 1 | 1 | 0 | 0.37 | 7.85446923 | 5.988525942 | 1.046868043 | 0.857142857 |
| University Press | 2010 | 1.11 | 1 | 1 | 1 | 1 | 0.39 | 7.84742535 | 8.90854782 | 0.990442948 | 0.928571429 |
| University Press | 2011 | 1.19 | 1 | 1 | 1 | 0 | 0.39 | 6.43761249 | 5.214589436 | 0.947071859 | 0.928571429 |
| University Press | 2012 | 1.18 | 1 | 1 | 1 | 0 | 0.37 | 6.47390938 | 10.97989597 | 2.806416444 | 0.285714286 |
| University Press | 2013 | 1.10 | 1 | 1 | 1 | 0 | 0.45 | 6.6086285 | 7.934560603 | 1.857996086 | 0.285714286 |
| University Press | 2014 | 1.60 | 1 | 1 | 1 | 0 | 0.49 | 6.5746414 | 4.889225236 | 0.909575729 | 0.285714286 |
| University Press | 2015 | 1.24 | 1 | 1 | 1 | 0 | 0.41 | 6.70521452 | 3.25905414 | 0.82108513 | 0.285714286 |
| University Press | 2016 | 4.95 | 1 | 1 | 1 | 0 | 0.35 | 6.69848202 | 3.744672819 | 0.770305705 | 0.5 |
| University Press | 2017 | 0.86 | 1 | 1 | 1 | 0 | 0.35 | 6.75068339 | 14.7515732 | 0.706302341 | 0.285714286 |
| University Press | 2018 | 0.86 | 1 | 1 | 1 | 0 | 0.34 | 6.80860652 | 13.38464117 | 0.807913498 | 0.5 |
| Vitafoam Nig | 1997 | 1.06 | 1 | 1 | 1 | 0 | 0.54 | 6.77656942 | -20.0477419 | 0.902742431 | 0.285714286 |
| Vitafoam Nig | 1998 | 0.99 | 1 | 1 | 1 | 0 | 0.51 | 6.59038903 | 6.84060104 | 0.824548283 | 0.5 |
| Vitafoam Nig | 1999 | 0.97 | 1 | 0 | 1 | 0 | 0.5 | 6.61607422 | 11.7430287 | 0.800306348 | 0.357142857 |
| Vitafoam Nig | 2000 | 1.04 | 1 | 0 | 1 | 0 | 0.44 | 6.74075014 | 11.35832668 | 1.306286217 | 0.357142857 |
| Vitafoam Nig | 2001 | 2.96 | 1 | 0 | 1 | 0 | 0.6 | 6.84730978 | 14.64998661 | 1.776730223 | 0.357142857 |
| Vitafoam Nig | 2002 | 2.93 | 1 | 0 | 1 | 0 | 0.57 | 6.93729592 | 12.65955021 | 1.55957579 | 0.357142857 |
| Vitafoam Nig | 2003 | 3.01 | 1 | 1 | 1 | 0 | 0.61 | 6.85609789 | 4.439740759 | 1.395320964 | 0.285714286 |
| Vitafoam Nig | 2004 | 3.08 | 1 | 0 | 1 | 1 | 0.59 | 7.048431 | 5.225407951 | 1.345684474 | 0.285714286 |
| Vitafoam Nig | 2005 | 3.61 | 1 | 1 | 1 | 0 | 0.47 | 6.99603127 | 4.035146177 | 0.965532805 | 0.285714286 |
| Vitafoam Nig | 2006 | 3.92 | 1 | 1 | 1 | 0 | 0.59 | 6.96423492 | -5.28389253 | 0.917142053 | 0.285714286 |
| Vitafoam Nig | 2007 | 3.95 | 1 | 0 | 1 | 0 | 0.58 | 7.06890189 | 6.207493556 | 0.893904157 | 0.285714286 |
| Vitafoam Nig | 2008 | 3.88 | 1 | 0 | 1 | 0 | 0.5 | 6.18417877 | -2.09610387 | 0.916225712 | 0.285714286 |
| Vitafoam Nig | 2009 | 2.82 | 1 | 1 | 1 | 0 | 0.51 | 6.24594132 | 20.60651925 | 1.075343495 | 0.285714286 |
| Vitafoam Nig | 2010 | 2.22 | 1 | 1 | 1 | 1 | 0.48 | 6.2829412 | 31.38385004 | 2.37383508 | 0.285714286 |
| Vitafoam Nig | 2011 | 1.04 | 1 | 1 | 1 | 1 | 0.42 | 6.30950497 | 29.01090149 | 4.452873858 | 0.714285714 |
| Vitafoam Nig | 2012 | 1.47 | 1 | 1 | 1 | 1 | 0.37 | 6.32617051 | 27.396105 | 3.526317491 | 0.714285714 |
| Vitafoam Nig | 2013 | 1.81 | 0 | 1 | 1 | 0 | 0.18 | 6.3503025 | 30.38933375 | 2.366441977 | 0.5 |
| Vitafoam Nig | 2014 | 2.43 | 0 | 1 | 1 | 0 | 0.26 | 6.42298489 | 24.92034732 | 1.78675044 | 0.5 |
| Vitafoam Nig | 2015 | 2.84 | 0 | 1 | 1 | 0 | 0.49 | 6.46048875 | 18.5308513 | 1.324688136 | 0.5 |
| Vitafoam Nig | 2016 | 3.06 | 0 | 1 | 1 | 0 | 0.52 | 6.53384219 | 14.41007203 | 1.396963776 | 0.5 |
| Vitafoam Nig | 2017 | 2.99 | 0 | 1 | 1 | 0 | 0.54 | 6.50711019 | 11.1866249 | 1.111410457 | 0.5 |
| Vitafoam Nig | 2018 | 2.73 | 0 | 1 | 1 | 0 | 0.68 | 6.30068959 | 5.7400708 | 0.956975432 | 0.5 |
| Japaul Oil & Maritime Services | 1997 | 2.80 | 0 | 1 | 1 | 0 | 0.8 | 6.32160526 | 8.442458502 | 0.874599874 | 0.714285714 |
| Japaul Oil & Maritime Services | 1998 | 2.77 | 1 | 1 | 1 | 0 | 0.55 | 6.30977682 | 10.4268549 | 1.188280776 | 0.285714286 |
| Japaul Oil & Maritime Services | 1999 | 1.10 | 1 | 1 | 1 | 0 | 0.44 | 6.3581784 | 12.20932291 | 1.334163118 | 0.285714286 |
| Japaul Oil & Maritime Services | 2000 | 2.11 | 0 | 1 | 1 | 0 | 0.46 | 6.41588208 | 14.39058041 | 0.863910567 | 0.285714286 |
| Japaul Oil & Maritime Services | 2001 | 3.16 | 0 | 1 | 1 | 0 | 0.4 | 6.42732947 | 26.36011705 | 0.940936282 | 0.714285714 |
| Japaul Oil & Maritime Services | 2002 | 1.22 | 0 | 1 | 1 | 0 | 0.4 | 6.46338542 | 13.17273516 | 1.160782973 | 0.5 |
| Japaul Oil & Maritime Services | 2003 | 1.21 | 0 | 1 | 1 | 0 | 0.41 | 6.54859098 | 10.82284731 | 1.012954747 | 0.5 |
| Japaul Oil & Maritime Services | 2004 | 1.07 | 1 | 1 | 1 | 0 | 0.43 | 6.56111868 | 10.31924267 | 1.021986399 | 0.5 |
| Japaul Oil & Maritime Services | 2005 | 0.65 | 1 | 1 | 1 | 0 | 0.42 | 6.59060446 | 6.049523748 | 1.036835305 | 0.5 |
| Japaul Oil & Maritime Services | 2006 | 0.69 | 0 | 1 | 1 | 0 | 2.24 | 6.97456539 | 12.76667453 | 1.061948289 | 0.571428571 |
| Japaul Oil & Maritime Services | 2007 | 0.76 | 0 | 1 | 1 | 0 | 1.3 | 7.08358216 | 7.100605387 | 0.702019453 | 0.285714286 |
| Japaul Oil & Maritime Services | 2008 | 0.99 | 1 | 1 | 1 | 0 | 1.5 | 7.14314457 | 14.05100654 | 0.979982429 | 0.5 |
| Japaul Oil & Maritime Services | 2009 | 0.77 | 1 | 1 | 1 | 0 | 1.5 | 7.12200314 | 16.36160507 | 1.265328649 | 0.5 |
| Japaul Oil & Maritime Services | 2010 | 0.88 | 1 | 1 | 1 | 0 | 0.39 | 7.20875825 | 16.24494536 | 1.093371847 | 0.5 |
| Japaul Oil & Maritime Services | 2011 | 1.13 | 0 | 1 | 1 | 0 | 0.31 | 7.25579311 | 14.99921818 | 0.873835649 | 0.5 |
| Japaul Oil & Maritime Services | 2012 | 1.09 | 0 | 1 | 1 | 0 | 0.23 | 7.35134337 | 15.66722685 | 0.724029384 | 0.5 |
| Japaul Oil & Maritime Services | 2013 | 0.98 | 1 | 1 | 1 | 1 | 0.19 | 7.43403339 | 10.66635367 | 0.686101542 | 0.5 |
| Japaul Oil & Maritime Services | 2014 | 0.97 | 1 | 1 | 1 | 0 | 0.39 | 7.43021034 | 10.66914309 | 0.684265732 | 0.5 |
| Japaul Oil & Maritime Services | 2015 | 1.02 | 1 | 1 | 1 | 0 | 0.48 | 7.43410673 | 14.98292294 | 0.758726737 | 0.5 |
| Japaul Oil & Maritime Services | 2016 | 0.80 | 1 | 1 | 1 | 0 | 0.48 | 7.47223304 | 11.32730027 | 1.113658304 | 0.5 |
| Japaul Oil & Maritime Services | 2017 | 0.72 | 1 | 1 | 1 | 0 | 0.56 | 7.38529549 | -213.346884 | 3.00815376 | 0.571428571 |
| Japaul Oil & Maritime Services | 2018 | 0.75 | 1 | 1 | 1 | 0 | 0.51 | 7.37841982 | -2087.69743 | 2.563517669 | 0.5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| O.C. Gases Nigeria | 1997 | 1.03 | 1 | 1 | 1 | 0 | 0.61 | 7.40220851 | 85.37883742 | 2.648180216 | 0.5 |
| O.C. Gases Nigeria | 1998 | 1.14 | 1 | 1 | 1 | 0 | 0.7 | 7.45218286 | -9.75834242 | 1.271688955 | 0.5 |
| O.C. Gases Nigeria | 1999 | 1.75 | 1 | 1 | 1 | 0 | 0.88 | 7.52706704 | 9.023289899 | 3.407187363 | 0.5 |
| O.C. Gases Nigeria | 2000 | 1.17 | 0 | 1 | 1 | 0 | 0.7 | 7.60375594 | 22.12621113 | 2.273497231 | 0.5 |
| O.C. Gases Nigeria | 2001 | 1.36 | 0 | 0 | 0 | 0 | 0.9 | 7.63520845 | 17.2410281 | 1.710195519 | 0.357142857 |
| O.C. Gases Nigeria | 2002 | 1.29 | 1 | 0 | 1 | 0 | 0.79 | 7.45969559 | 25.10204759 | 4.322647706 | 0.357142857 |
| O.C. Gases Nigeria | 2003 | 1.11 | 1 | 0 | 1 | 0 | 0.71 | 7.4535783 | 13.10590532 | 5.312349219 | 0.357142857 |
| O.C. Gases Nigeria | 2004 | 1.26 | 1 | 0 | 1 | 0 | 0.74 | 6.90663216 | 9.387603735 | 2.883622139 | 0.357142857 |
| O.C. Gases Nigeria | 2005 | 1.26 | 1 | 1 | 1 | 0 | 0.94 | 6.9594499 | -2.26348921 | 1.758834481 | 0.285714286 |
| O.C. Gases Nigeria | 2006 | 1.14 | 1 | 1 | 1 | 0 | 0.9 | 6.94425663 | 4.404358911 | 3.593041948 | 0.285714286 |
| O.C. Gases Nigeria | 2007 | 5.00 |  |  |  |  | 0.87 | 6.72461931 | 38.49004551 | 2.52462405 | 0.5 |
| O.C. Gases Nigeria | 2008 | 4.45 | 1 | 1 | 1 | 1 | 0.57 | 7.03025 | 42.96711257 | 2.500572036 | 0.5 |
| O.C. Gases Nigeria | 2009 | 3.16 | 1 | 1 | 1 | 1 | 0.52 | 7.09927205 | 26.17811243 | 2.380160957 | 0.5 |
| O.C. Gases Nigeria | 2010 | 1.49 | 1 | 1 | 1 | 1 | 0.61 | 7.15357098 | 32.90018563 | 1.331851852 | 0.5 |
| O.C. Gases Nigeria | 2011 | 1.64 | 1 | 1 | 1 | 1 | 0.58 | 7.17778099 | 15.65649954 | 0.917546323 | 0.428571429 |
| O.C. Gases Nigeria | 2012 | 1.46 | 1 | 1 | 1 | 1 | 0.62 | 7.1981073 | 15.70293533 | 1.235293898 | 0.428571429 |
| O.C. Gases Nigeria | 2013 | 1.42 | 1 | 1 | 1 | 1 | 0.55 | 7.23418518 | 20.309448 | 1.259550755 | 0.428571429 |
| O.C. Gases Nigeria | 2014 | 2.20 | 1 | 1 | 1 | 1 | 0.54 | 6.58146255 | 11.83967933 | 0.424191032 | 0.428571429 |
| O.C. Gases Nigeria | 2015 | 2.14 | 1 | 1 | 1 | 0 | 0.55 | 6.44739667 | -33.865046 | 1.208474071 | 0.285714286 |
| O.C. Gases Nigeria | 2016 | 1.58 | 0 | 0 | 1 | 0 | 0.84 | 6.84251095 | 35.58209937 | 3.069940129 | 0.285714286 |
| O.C. Gases Nigeria | 2017 | 2.79 | 0 | 0 | 1 | 0 | 0.87 | 6.83245782 | 57.05055448 | 1.849760542 | 0.285714286 |
| O.C. Gases Nigeria | 2018 | 2.76 | 0 | 0 | 1 | 0 | 0.9 | 6.96083766 | 38.97055394 | 1.961142487 | 0.5 |
| Guinness Nigeria | 1997 | 3.46 | 0 | 0 | 1 | 0 | 0.77 | 6.98192642 | 25.56263733 | 2.47645057 | 0.5 |
| Guinness Nigeria | 1998 | 0.98 | 0 | 0 | 1 | 0 | 0.75 | 7.014065 | -12.8529404 | 4.281938085 | 0.5 |
| Guinness Nigeria | 1999 | 0.75 | 0 | 0 | 1 | 0 | 0.81 | 6.68699428 | 1.083177927 | 4.215486409 | 0.357142857 |
| Guinness Nigeria | 2000 | 0.82 | 0 | 0 | 1 | 0 | 0.79 | 6.76800862 | 3.596851044 | 0.668891114 | 0.285714286 |
| Guinness Nigeria | 2001 | 0.89 | 0 | 0 | 1 | 1 | 0.8 | 6.86648949 | 12.13513885 | 0.768454698 | 0.285714286 |
| Guinness Nigeria | 2002 | 0.82 | 0 | 1 | 1 | 0 | 0.1 | 6.94590143 | 9.656347682 | 1.86341302 | 0.285714286 |
| Guinness Nigeria | 2003 | 0.84 | 0 | 1 | 1 | 0 | 0.14 | 6.97406704 | -17.00089 | 1.68806955 | 0.285714286 |
| Guinness Nigeria | 2004 | 0.82 | 1 | 1 | 1 | 0 | 0.33 | 6.55518311 | 15.72616919 | 1.375841815 | 0.285714286 |
| Guinness Nigeria | 2005 | 1.06 | 0 | 1 | 1 | 0 | 0.32 | 7.169071 | 20.94124289 | 2.183669982 | 0 |
| Guinness Nigeria | 2006 | 2.58 | 0 | 1 | 1 | 0 | 0.32 | 7.18796235 | 8.131080416 | 1.098910105 | 0.357142857 |
| Guinness Nigeria | 2007 | 3.20 | 0 | 1 | 0 | 0 | 0.29 | 7.22499492 | 1.99455335 | 0.897982503 | 0.357142857 |
| Guinness Nigeria | 2008 | 0.86 | 1 | 1 | 1 | 0 | 0.22 | 7.26493787 | -1.71890256 | 0.911573532 | 0.5 |
| Guinness Nigeria | 2009 | 0.61 | 1 | 1 | 1 | 1 | 0.22 | 6.18895884 | -268.248105 | 1.091124806 | 0.714285714 |
| Guinness Nigeria | 2010 | 0.61 | 0 | 1 | 1 | 0 | 0.55 | 6.29631432 | 36.49058123 | 2.205663293 | 0.5 |
| Guinness Nigeria | 2011 | 0.73 | 0 | 1 | 1 | 0 | 0.47 | 6.34663244 | 35.12403342 | 4.880624302 | 0.5 |
| Guinness Nigeria | 2012 | 0.64 | 0 | 1 | 1 | 0 | 0.46 | 6.33477875 | 107.1644274 | 5.626116342 | 0.5 |
| Guinness Nigeria | 2013 | 0.66 | 0 | 1 | 1 | 0 | 0.44 | 6.3748035 | 45.19637719 | 3.665531868 | 0.714285714 |
| Guinness Nigeria | 2014 | 0.67 | 1 | 1 | 1 | 0 | 0.6 | 6.48673445 | 86.44458958 | 4.284858337 | 0.857142857 |
| Guinness Nigeria | 2015 | 3.00 | 1 | 1 | 1 | 0 | 0.62 | 6.45875898 | 71.92322178 | 5.166649072 | 0.857142857 |
| Guinness Nigeria | 2016 | 1.70 | 1 | 1 | 1 | 0 | 0.54 | 6.48216041 | 99.73019171 | 5.430682646 | 0.857142857 |
| Guinness Nigeria | 2017 | 1.60 | 1 | 1 | 1 | 0 | 0.56 | 6.48867492 | 111.7215814 | 10.82555683 | 0.928571429 |
| Guinness Nigeria | 2018 | 1.70 | 0 | 1 | 1 | 0 | 0.57 | 6.53266522 | 140.8150957 | 9.615732468 | 0.928571429 |
| Union Diagnostic & Clin. Serv. | 1997 | 1.50 | 1 | 1 | 1 | 0 | 0.45 | 6.36342393 | 114.434658 | 8.346043763 | 0.928571429 |
| Union Diagnostic & Clin. Serv. | 1998 | 1.12 | 1 | 1 | 1 | 0 | 0.29 | 6.58806252 | 20.33124514 | 1.809118728 | 0.285714286 |
| Union Diagnostic & Clin. Serv. | 1999 | 0.58 | 1 | 1 | 1 | 0 | 0.47 | 6.82756925 | 8.200171191 | 3.021510524 | 0.285714286 |
| Union Diagnostic & Clin. Serv. | 2000 | 0.56 | 1 | 1 | 1 | 0 | 0.42 | 7.01881534 | 20.59658054 | 3.118960212 | 0.285714286 |
| Union Diagnostic & Clin. Serv. | 2001 | 0.44 | 1 | 1 | 1 | 0 | 0.31 | 7.11236862 | 14.22772343 | 1.22986555 | 0.285714286 |
| Union Diagnostic & Clin. Serv. | 2002 | 0.48 | 1 | 1 | 1 | 0 | 0.38 | 7.10369024 | 5.082914796 | 1.086828355 | 0.142857143 |
| Union Diagnostic & Clin. Serv. | 2003 | 2.13 |  |  |  |  | 0.48 | 7.30439666 | -9.81969709 | 0.978724367 | 0.142857143 |
| Union Diagnostic & Clin. Serv. | 2004 | 2.49 | 1 | 1 | 1 | 0 | 0.47 | 7.3411978 | 7.198373447 | 0.953729059 | 0.142857143 |
| Union Diagnostic & Clin. Serv. | 2005 | 2.69 | 0 | 1 | 1 | 0 | 0.45 | 7.36798968 | 3.157152118 | 0.800168548 | 0.142857143 |
| Union Diagnostic & Clin. Serv. | 2006 | 0.89 | 0 | 1 | 1 | 0 | 0.38 | 7.46654166 | 3.067665499 | 0.785885985 | 0.142857143 |
| Union Diagnostic & Clin. Serv. | 2007 | 1.21 | 0 | 1 | 1 | 0 | 0.35 | 7.5254002 | 2.615014643 | 0.833305206 | 0.142857143 |
| Union Diagnostic & Clin. Serv. | 2008 | 0.60 | 0 | 1 | 1 | 1 | 0.4 | 7.59610695 | 24.86751318 | 2.134745367 | 0.357142857 |
| Union Diagnostic & Clin. Serv. | 2009 | 0.36 | 0 | 1 | 1 | 1 | 0.42 | 7.75431419 | 22.96148429 | 1.927758889 | 0.142857143 |
| Union Diagnostic & Clin. Serv. | 2010 | 0.36 | 1 | 1 | 1 | 1 | 0.48 | 7.59959509 | 15.39390557 | 1.981421177 | 0.428571429 |
| Union Diagnostic & Clin. Serv. | 2011 | 0.36 | 1 | 1 | 1 | 0 | 0.53 | 7.61794286 | 17.11456866 | 1.625429113 | 0.428571429 |
| Union Diagnostic & Clin. Serv. | 2012 | 0.37 | 0 | 1 | 1 | 0 | 0.34 | 7.79137702 | 18.28276022 | 1.342948954 | 0.571428571 |
| Union Diagnostic & Clin. Serv. | 2013 | 7.97 | 0 | 1 | 1 | 0 | 0.46 | 7.91957999 | 17.74308575 | 1.124617984 | 0.428571429 |
| Union Diagnostic & Clin. Serv. | 2014 | 18.63 | 0 | 1 | 1 | 0 | 0.44 | 7.91577975 | 4.565273817 | 0.998649831 | 0.428571429 |
| Union Diagnostic & Clin. Serv. | 2015 | 12.28 | 0 | 1 | 1 | 0 | 0.44 | 7.93748508 | 17.0206638 | 1.003639113 | 0.357142857 |
| Union Diagnostic & Clin. Serv. | 2016 | 3.07 | 0 | 1 | 1 | 0 | 0.45 | 7.8412804 | 5.18401195 | 1.219356444 | 0.428571429 |
| Union Diagnostic & Clin. Serv. | 2017 | 1.85 | 0 | 1 | 1 | 0 | 0.43 | 5.62177121 | 13.02994474 | 1.092960897 | 0.357142857 |
| Union Diagnostic & Clin. Serv. | 2018 | 1.33 | 1 | 1 | 1 | 0 | 0.63 | 5.80473456 | 60.1955884 | 1.437805938 | 0.285714286 |
| Tripple Gee & Co. | 1997 | 1.87 | 1 | 1 | 1 | 1 | 0.52 | 5.88030365 | 44.95984778 | 4.233597083 | 0.285714286 |
| Tripple Gee & Co. | 1998 | 2.65 | 0 | 1 | 1 | 0 | 0.78 | 5.89410157 | 29.72410715 | 8.848917141 | 0.285714286 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tripple Gee & Co. | 1999 | 1.76 | 1 | 1 | 1 | 0 | 0.75 | 6.02566135 | 19.57540194 | 2.80245368 | 0.285714286 |
| Tripple Gee & Co. | 2000 | 1.44 | 1 | 1 | 1 | 0 | 0.75 | 5.97101454 | 29.08359736 | 2.061614611 | 0.285714286 |
| Tripple Gee & Co. | 2001 | 1.66 | 1 | 1 | 1 | 0 | 0.74 | 5.9738706 | 17.0141418 | 1.645005985 | 0.285714286 |
| Tripple Gee & Co. | 2002 | 3.17 | 1 | 1 | 1 | 0 | 0.74 | 6.03094969 | 15.45569598 | 1.292799647 | 0.357142857 |
| Tripple Gee & Co. | 2003 | 2.33 | 1 | 1 | 1 | 0 | 0.71 | 6.24171329 | 25.34047132 | 1.911863565 | 0.285714286 |
| Tripple Gee & Co. | 2004 | 1.27 | 0 | 0 | 1 | 0 | 0.79 | 6.29420447 | 29.60055909 | 1.523924773 | 0.5 |
| Tripple Gee & Co. | 2005 | 1.32 | 1 | 1 | 1 | 0 | 0.82 | 6.04029451 | 20.06276632 | 1.328997706 | 0.571428571 |
| Tripple Gee & Co. | 2006 | 1.09 | 1 | 1 | 1 | 0 | 0.5 | 6.28344552 | 37.19032548 | 1.798198801 | 0.285714286 |
| Tripple Gee & Co. | 2007 | 0.81 | 1 | 1 | 1 | 0 | 0.6 | 6.50780893 | 10.56901812 | 1.749696137 | 0.285714286 |
| Tripple Gee & Co. | 2008 | 0.89 | 0 | 1 | 1 | 0 | 0.81 | 6.42386393 | -20.6696038 | 1.596637894 | 0.285714286 |
| Tripple Gee & Co. | 2009 | 0.83 | 0 | 1 | 1 | 0 | 0.61 | 6.43392609 | -76.1229633 | 1.575994124 | 0.285714286 |
| Tripple Gee & Co. | 2010 | 0.79 | 0 | 1 | 1 | 0 | 0.78 | 6.43595547 | -40.241818 | 1.350929334 | 0.285714286 |
| Tripple Gee & Co. | 2011 | 3.18 | 0 | 1 | 1 | 0 | 0.66 | 6.41185833 | -9.09364482 | 0.898544588 | 0.5 |
| Tripple Gee & Co. | 2012 | 3.18 | 0 | 1 | 1 | 0 | 0.66 | 6.41955231 | -4.14315542 | 0.848543401 | 0.5 |
| Tripple Gee & Co. | 2013 | 4.39 | 1 | 1 | 1 | 1 | 0.74 | 6.39139 | 6.791830986 | 0.905429956 | 0.5 |
| Tripple Gee & Co. | 2014 | 2.23 | 0 | 1 | 1 | 0 | 0.05 | 6.36704509 | -5.63746948 | 0.86497141 | 0.5 |
| Tripple Gee & Co. | 2015 | 4.27 | 0 | 1 | 1 | 0 | 0.06 | 5.97251294 | 7.713533998 | 0.798942121 | 0.5 |
| Tripple Gee & Co. | 2016 | 2.48 | 0 | 1 | 1 | 0 | 0.14 | 6.51555065 | 26.21111247 | 12.4705935 | 0.714285714 |
| Tripple Gee & Co. | 2017 | 1.96 | 0 | 1 | 1 | 0 | 0.28 | 6.98166325 | -11.4337219 | 3.581179205 | 0.5 |
| Tripple Gee & Co. | 2018 | 1.63 | 0 | 1 | 1 | 0 | 0.36 | 7.01172274 | -52.2492519 | 3.455756109 | 0.5 |
| Pz Cussons | 1997 | 1.63 | 0 | 1 | 1 | 0 | 0.4 | 6.96747777 | -38.3157946 | 3.625495342 | 0.714285714 |
| Pz Cussons | 1998 | 1.72 | 0 | 1 | 1 | 0 | 0.49 | 7.1676662 | 15.6307339 | 1.411759703 | 0.5 |
| Pz Cussons | 1999 | 1.05 |  |  |  |  | 0.47 | 7.52130614 | 20.75681849 | 1.02577977 | 0.5 |
| Pz Cussons | 2000 | 1.34 | 0 | 1 | 1 | 0 | 0.34 | 7.26133768 | 14.79350425 | 0.915372845 | 0.357142857 |
| Pz Cussons | 2001 | 6.47 | 0 | 1 | 1 | 0 | 0.45 | 7.11492342 | 9.889252956 | 0.806920222 | 0.357142857 |
| Pz Cussons | 2002 | 3.67 | 0 | 1 | 1 | 0 | 0.52 | 7.45584045 | 11.57180637 | 1.054012512 | 0.285714286 |
| Pz Cussons | 2003 | 3.50 | 0 | 1 | 1 | 0 | 0.57 | 6.58199253 | 13.19736419 | 0.770320806 | 0.285714286 |
| Pz Cussons | 2004 | 3.00 | 1 | 1 | 1 | 0 | 0.63 | 6.63826506 | 8.056793189 | 0.942641515 | 0.285714286 |
| Pz Cussons | 2005 | 2.18 | 1 | 1 | 1 | 0 | 0.62 | 6.67183933 | -23.9461674 | 1.485347891 | 0.285714286 |
| Pz Cussons | 2006 | 0.80 | 1 | 1 | 1 | 0 | 0.6 | 6.59847818 | -61.9213289 | 1.464663575 | 0.285714286 |
| Pz Cussons | 2007 | 0.91 | 1 | 1 | 1 | 0 | 0.56 | 6.61206275 | 1351.818196 | 1.320699072 | 0.285714286 |
| Pz Cussons | 2008 | 1.13 | 0 | 1 | 1 | 0 | 0.4 | 6.84132768 | -15.361826 | 1.175571101 | 0.285714286 |
| Pz Cussons | 2009 | 2.28 | 1 | 1 | 1 | 1 | 0.4 | 6.86359608 | 463.0887887 | 0.698285437 | 0.285714286 |
| Pz Cussons | 2010 | 2.75 | 1 | 1 | 1 | 0 | 0.49 | 6.85152765 | 10.05893854 | 0.664076362 | 0.285714286 |
| Pz Cussons | 2011 | 7.74 | 1 | 1 | 1 | 0 | 0.46 | 6.8228332 | -49.6025789 | 0.984606545 | 0.285714286 |
| Pz Cussons | 2012 | 2.58 | 1 | 1 | 1 | 0 | 0.45 | 8.08310598 | -81.0257726 | 0.985498087 | 0.285714286 |
| Pz Cussons | 2013 | 1.01 | 1 | 1 | 1 | 0 | 0.42 | 8.33911759 | 12.54101886 | 1.18496228 | 0.5 |
| Pz Cussons | 2014 | 0.97 | 1 | 1 | 1 | 0 | 0.47 | 8.72874288 | 15.66140013 | 1.673128944 | 0.285714286 |
| Pz Cussons | 2015 | 0.81 | 0 | 1 | 1 | 0 | 0.48 | 8.70438756 | 9.734265742 | 1.253462665 | 0.714285714 |
| Pz Cussons | 2016 | 0.82 | 0 | 1 | 1 | 0 | 0.63 | 8.6827 | 1.105525965 | 0.890760317 | 0.285714286 |
| Pz Cussons | 2017 | 0.89 | 0 | 1 | 1 | 0 | 0.69 | 8.86799398 | 4.485305997 | 0.874266493 | 0.5 |
| Pz Cussons | 2018 | 0.87 | 1 | 1 | 1 | 1 | 0.65 | 8.96111722 | 1.881201814 | 0.893867171 | 0.5 |
| Morison Industries | 1997 | 0.90 | 1 | 1 | 1 | 1 | 0.7 | 9.03391287 | 11.27249079 | 0.867813431 | 0.714285714 |
| Morison Industries | 1998 | 0.80 | 1 | 1 | 1 | 1 | 0.72 | 9.07445987 | 4.723624239 | 0.926713225 | 0.642857143 |
| Morison Industries | 1999 | 0.60 | 1 | 1 | 1 | 1 | 0.75 | 9.0905127 | 7.969453125 | 0.902841292 | 0.928571429 |
| Morison Industries | 2000 | 0.70 | 1 | 1 | 1 | 0 | 0.72 | 6.86350665 | 7.5764511 | 0.88627994 | 0.928571429 |
| Morison Industries | 2001 | 0.93 | 1 | 1 | 1 | 1 | 0.79 | 6.87641167 | 0.370772132 | 0.914888196 | 0.285714286 |
| Morison Industries | 2002 | 0.90 | 1 | 1 | 0 | 0 | 0.63 | 6.9384271 | -50.0820125 | 1.250259255 | 0.285714286 |
| Morison Industries | 2003 | 1.08 | 0 | 1 | 0 | 0 | 0.87 | 7.01042993 | -13.0456908 | 1.477888605 | 0.285714286 |
| Morison Industries | 2004 | 1.05 | 0 | 1 | 1 | 0 | 0.82 | 7.02186763 | 0.729082195 | 0.594082243 | 0.285714286 |
| Morison Industries | 2005 | 0.95 | 0 | 1 | 1 | 0 | 0.6 | 6.99791669 | -5.3359807 | 0.50810335 | 0.285714286 |
| Morison Industries | 2006 | 0.92 | 0 | 1 | 1 | 0 | 0.68 | 6.94774081 | -4.62910896 | 0.509559949 | 0.714285714 |
| Morison Industries | 2007 | 5.80 | 1 | 1 | 1 | 0 | 0.89 | 6.93302101 | -22.2535782 | 0.60995755 | 0.5 |
| Morison Industries | 2008 | 6.74 | 1 | 1 | 1 | 0 | 0.69 | 6.92819387 | 2.106583956 | 0.585187683 | 0.5 |
| Morison Industries | 2009 | 4.95 | 1 | 1 | 1 | 0 | 0.62 | 6.91577371 | 0.642477397 | 0.577137636 | 0.5 |
| Morison Industries | 2010 | 1.76 | 0 | 1 | 1 | 0 | 0.48 | 7.88162362 | 2.329997686 | 0.551586252 | 0.5 |
| Morison Industries | 2011 | 2.77 | 0 | 1 | 1 | 0 | 0.48 | 8.03802512 | 22.18907933 | 1.74556293 | 0.285714286 |
| Morison Industries | 2012 | 1.80 | 0 | 1 | 1 | 0 | 0.55 | 8.13836718 | 11.1013412 | 1.972580229 | 0.285714286 |
| Morison Industries | 2013 | 1.54 | 0 | 1 | 1 | 0 | 0.63 | 8.1569131 | 11.56646618 | 1.06007759 | 0.571428571 |
| Morison Industries | 2014 | 3.03 | 0 | 1 | 1 | 0 | 0.73 | 8.21288475 | 7.306136717 | 1.634022448 | 0.357142857 |
| Morison Industries | 2015 | 2.78 | 0 | 1 | 1 | 0 | 0.78 | 8.36708999 | 18.90213414 | 1.748036391 | 0.357142857 |
| Morison Industries | 2016 | 1.72 | 0 | 1 | 1 | 0 | 0.77 | 8.4475413 | 10.17315205 | 1.299764265 | 0.857142857 |
| Morison Industries | 2017 | 4.00 | 0 | 1 | 1 | 0 | 0.92 | 8.47312105 | 9.210077157 | 1.496591698 | 0.857142857 |
| Morison Industries | 2018 | 4.88 | 1 | 1 | 1 | 1 | 0.47 | 8.53510339 | 6.42402045 | 1.32161136 | 0.928571429 |
| Cadbury Nigeria | 1997 | 10.85 | 1 | 1 | 1 | 1 | 0.5 | 7.4190784 | 10.03297117 | 0.995074791 | 0.857142857 |
| Cadbury Nigeria | 1998 | 3.37 | 1 | 1 | 1 | 0 | 0.51 | 7.05181188 | 29.33692945 | 1.536534578 | 0.285714286 |
| Cadbury Nigeria | 1999 | 6.02 | 1 | 1 | 1 | 0 | 0.53 | 7.29721646 | 77.73615154 | 5.019100867 | 0.5 |
| Cadbury Nigeria | 2000 | 1.30 | 1 | 1 | 1 | 0 | 0.54 | 7.94375215 | 73.29112619 | 14.86776484 | 0.5 |
| Cadbury Nigeria | 2001 | 1.30 | 1 | 1 | 1 | 1 | 0.58 | 7.83903475 | -27.6848696 | 1.43131134 | 0.285714286 |
| Cadbury Nigeria | 2002 | 1.23 | 1 | 1 | 1 | 1 | 0.4 | 7.65538218 | -10.8255992 | 1.129065209 | 0.357142857 |
| Cadbury Nigeria | 2003 | 1.10 |  |  |  |  | 0.35 | 7.62852112 | -331.724125 | 1.33031245 | 0.142857143 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cadbury Nigeria | 2004 | 1.09 | 0 | 1 | 1 | 0 | 0.49 | 8.01985542 | 13.28666745 | 1.089201951 | 0.285714286 |
| Cadbury Nigeria | 2005 | 1.55 | 0 | 1 | 1 | 0 | 0.41 | 8.14375871 | 11.81695134 | 0.896498323 | 0.285714286 |
| Cadbury Nigeria | 2006 | 1.28 | 0 | 1 | 1 | 0 | 0.45 | 8.08549736 | 10.0522167 | 3.779226004 | 0.357142857 |
| Cadbury Nigeria | 2007 | 1.60 | 0 | 1 | 1 | 0 | 0.53 | 6.92579393 | 44.28846058 | 4.05274238 | 0.571428571 |
| Cadbury Nigeria | 2008 | 1.21 | 0 | 1 | 1 | 0 | 0.49 | 6.9404747 | 25.8114391 | 1.677960855 | 0.714285714 |
| Cadbury Nigeria | 2009 | 0.84 | 0 | 1 | 1 | 0 | 0.53 | 6.98272316 | 18.18524361 | 2.667635807 | 0.5 |
| Cadbury Nigeria | 2010 | 0.78 | 0 | 1 | 1 | 0 | 0.53 | 7.08200804 | 23.43301124 | 2.669200574 | 0.714285714 |
| Cadbury Nigeria | 2011 | 1.25 | 1 | 1 | 1 | 0 | 0.54 | 7.16843596 | 35.33950831 | 1.891998775 | 0.714285714 |
| Cadbury Nigeria | 2012 | 1.30 | 1 | 1 | 1 | 0 | 0.56 | 7.25382622 | 25.20126407 | 2.253627957 | 0.857142857 |
| Cadbury Nigeria | 2013 | 1.21 | 1 | 1 | 1 | 0 | 0.56 | 7.33831146 | 25.62781466 | 1.916128526 | 0.857142857 |
| Cadbury Nigeria | 2014 | 1.12 | 1 | 1 | 1 | 1 | 0.64 | 7.41852771 | 26.47950963 | 1.638341007 | 0.5 |
| Cadbury Nigeria | 2015 | 1.06 | 1 | 1 | 1 | 1 | 0.62 | 7.4470474 | 23.64520999 | 2.692352282 | 0.5 |
| Cadbury Nigeria | 2016 | 1.58 | 1 | 1 | 1 | 1 | 0.66 | 7.49595642 | 14.27870837 | 2.778932766 | 0.5 |
| Cadbury Nigeria | 2017 | 1.86 | 1 | 1 | 1 | 1 | 0.6 | 5.93970691 | 7.31916069 | 1.698005457 | 0.785714286 |
| Cadbury Nigeria | 2018 | 1.19 | 1 | 1 | 1 | 1 | 0.7 | 5.86812991 | 9.073846625 | 1.8 | 0.285714286 |
| Unilever Nigeria | 1997 | 1.22 | 1 | 1 | 1 | 1 | 0.71 | 5.84274026 | -4.91491835 | 0.643675786 | 0.285714286 |
| Unilever Nigeria | 1998 | 1.05 | 0 | 1 | 1 | 0 | 0.55 | 5.86344361 | 0.819032018 | 1.475839186 | 0.285714286 |
| Unilever Nigeria | 1999 | 0.91 | 0 | 1 | 1 | 0 | 0.48 | 5.82935782 | -5.79617663 | 1.480306641 | 0.285714286 |
| Unilever Nigeria | 2000 | 1.00 | 0 | 1 | 1 | 0 | 0.63 | 5.79412401 | 12.78132058 | 1.446706022 | 0.285714286 |
| Unilever Nigeria | 2001 | 1.06 | 1 | 1 | 1 | 1 | 0.67 | 5.83404856 | 10.4591371 | 1.367567903 | 0.285714286 |
| Unilever Nigeria | 2002 | 1.21 | 1 | 1 | 1 | 0 | 0.68 | 5.82201958 | 9.595723815 | 1.32267006 | 0.285714286 |
| Unilever Nigeria | 2003 | 5.60 | 1 | 1 | 1 | 0 | 0.7 | 5.85473951 | 12.89025642 | 1.267379679 | 0.285714286 |
| Unilever Nigeria | 2004 | 3.13 | 1 | 1 | 1 | 0 | 0.78 | 8.4891295 | 7.327219382 | 1.150829821 | 0.285714286 |
| Unilever Nigeria | 2005 | 3.45 | 1 | 1 | 1 | 0 | 0.54 | 8.68707488 | 20.3805776 | 1.166374523 | 0.285714286 |
| Unilever Nigeria | 2006 | 0.73 | 0 | 1 | 1 | 0 | 0.56 | 8.98350102 | 26.39509392 | 1.409903407 | 0.285714286 |
| Unilever Nigeria | 2007 | 0.59 | 0 | 1 | 1 | 0 | 0.65 | 9.02796237 | 16.43304022 | 1.235483335 | 0.5 |
| Unilever Nigeria | 2008 | 0.76 | 0 | 1 | 1 | 0 | 0.59 | 9.06145248 | 14.87844877 | 1.059215099 | 0.785714286 |
| Unilever Nigeria | 2009 | 0.77 | 0 | 1 | 1 | 0 | 0.67 | 9.20733271 | 18.18848556 | 1.166703613 | 0.785714286 |
| Unilever Nigeria | 2010 | 0.95 | 0 | 1 | 1 | 0 | 0.71 | 9.2392689 | 20.8924533 | 1.128210988 | 0.785714286 |
| Unilever Nigeria | 2011 | 0.85 | 0 | 1 | 1 | 0 | 0.7 | 9.32280755 | 30.89799712 | 1.110326875 | 0.785714286 |
| Unilever Nigeria | 2012 | 0.79 | 0 | 1 | 1 | 0 | 0.69 | 9.32911922 | 27.50759815 | 1.186042307 | 0.785714286 |
| Unilever Nigeria | 2013 | 4.39 | 0 | 0 | 1 | 0 | 0.49 | 9.40219155 | 26.36557241 | 1.182679665 | 1 |
| Unilever Nigeria | 2014 | 7.24 | 0 | 1 | 1 | 0 | 0.17 | 6.12209852 | 24.04403693 | 1.095956262 | 0.571428571 |
| Unilever Nigeria | 2015 | 5.73 | 0 | 1 | 1 | 0 | 0.42 | 6.60788171 | 12.72935375 | 1.6 | 0.285714286 |
| Unilever Nigeria | 2016 | 3.51 | 0 | 1 | 1 | 0 | 0.39 | 6.61181589 | 2.635926478 | 1.235572207 | 0.285714286 |
| Unilever Nigeria | 2017 | 4.69 | 0 | 1 | 1 | 0 | 0.4 | 6.62548089 | 2.257283189 | 4.95444712 | 0.285714286 |
| Unilever Nigeria | 2018 | 4.80 | 0 | 1 | 1 | 0 | 0.43 | 6.61180389 | -0.40620326 | 0.859579043 | 0.285714286 |
| ABC Transport | 1997 | 4.83 | 0 | 1 | 1 | 0 | 0.35 | 6.57271911 | -3.37458849 | 0.855024948 | 0.285714286 |
| ABC Transport | 1998 | 7.77 | 0 | 1 | 1 | 0 | 0.41 | 6.59749269 | -17.5983122 | 1.057538656 | 0.285714286 |
| ABC Transport | 1999 | 8.71 | 0 | 1 | 1 | 0 | 0.47 | 6.62469031 | 1.955104035 | 0.985469994 | 0.285714286 |
| ABC Transport | 2000 | 6.32 | 0 | 1 | 1 | 0 | 1.01 | 6.61448623 | 1.335421644 | 0.967347604 | 0.285714286 |
| ABC Transport | 2001 | 4.13 | 0 | 1 | 1 | 0 | 0.91 | 7.77706567 | -0.24921102 | 1.041312863 | 0.285714286 |
| ABC Transport | 2002 | 4.02 | 0 | 1 | 1 | 0 | 0.91 | 7.85618146 | 28.98641958 | 2.963506849 | 0.571428571 |
| ABC Transport | 2003 | 4.35 | 1 | 1 | 1 | 1 | 0.59 | 7.86445885 | 33.79093331 | 2.92839856 | 0.571428571 |
| ABC Transport | 2004 | 4.20 | 1 | 1 | 1 | 0 | 0.54 | 7.86846067 | 32.17595567 | 3.01462968 | 0.571428571 |
| ABC Transport | 2005 | 5.18 | 1 | 1 | 1 | 0 | 0.6 | 7.89429876 | 42.95421866 | 3.079326445 | 0.571428571 |
| ABC Transport | 2006 | 3.46 | 1 | 1 | 1 | 0 | 0.58 | 7.96486196 | 40.16582708 | 3.608023528 | 0.571428571 |
| ABC Transport | 2007 | 4.05 | 1 | 1 | 1 | 1 | 0.69 | 8.02534547 | 44.50441883 | 3.921589129 | 0.571428571 |
| ABC Transport | 2008 | 5.49 | 0 | 0 | 1 | 0 | 0.86 | 8.0830029 | 36.81445902 | 3.953159173 | 0.928571429 |
| ABC Transport | 2009 | 4.16 | 0 | 1 | 1 | 0 | 0.83 | 8.12165264 | 25.76879905 | 3.88497623 | 0.928571429 |
| ABC Transport | 2010 | 3.66 | 0 | 0 | 1 | 0 | 0.54 | 8.0872369 | 21.24526236 | 2.821661974 | 0.928571429 |
| ABC Transport | 2011 | 1.70 | 0 | 0 | 1 | 0 | 0.61 | 6.87829764 | 16.12469483 | 2.219385353 | 0.928571429 |
| ABC Transport | 2012 | 1.00 | 0 | 1 | 1 | 0 | 0.68 | 4.96370757 | 4.129115362 | 1.039681177 | 0.285714286 |
| ABC Transport | 2013 | 2.45 | 0 | 0 | 1 | 0 | 0.9 | 5.51879811 | 276.2376238 | 1.466267318 | 0.285714286 |
| ABC Transport | 2014 | 3.62 | 0 | 1 | 1 | 0 | 0.61 | 5.73200835 | -4.38084112 | 1.814966186 | 0.142857143 |
| ABC Transport | 2015 | 3.05 |  |  |  |  | 2.01 | 5.68035002 | -4.21838952 | 2.430929859 | 0.285714286 |
| ABC Transport | 2016 | 3.36 | 0 | 1 | 1 | 0 | 0.73 | 5.63836544 | 1.147364004 | 2.841912417 | 0.285714286 |
| ABC Transport | 2017 | 1.87 | 0 | 1 | 1 | 0 | 0.71 | 5.6512848 | -5.69462411 | 3.05891542 | 0.285714286 |
| ABC Transport | 2018 | 1.39 | 0 | 1 | 1 | 0 | 0.83 | 5.6794497 | 1.381754559 | 2.994248029 | 0.285714286 |
| Caverton Offshore Support  Group | 1997 | 1.26 | 0 | 1 | 1 | 0 | 0.74 | 5.63142347 | 2.16170742 | 2.73260966 | 0.285714286 |
| Caverton Offshore Support  Group | 1998 | 1.12 | 0 | 1 | 1 | 0 | 0.68 | 5.96678026 | 2.207000161 | 2.79685032 | 0.285714286 |
| Caverton Offshore Support  Group | 1999 | 2.60 | 0 | 1 | 1 | 0 | 0.72 | 6.33584508 | 30.37029131 | 2.76713947 | 0.285714286 |
| Caverton Offshore Support  Group | 2000 | 2.46 | 0 | 1 | 1 | 0 | 0.73 | 6.68839258 | 16.47130138 | 1.09691094 | 0.142857143 |
| Caverton Offshore Support  Group | 2001 | 2.08 | 1 | 1 | 1 | 0 | 0.74 | 7.32211782 | 24.69317855 | 2.11057642 | 0.142857143 |
| Caverton Offshore Support | 2002 | 1.70 | 1 | 1 | 1 | 0 | 0.95 | 7.32812686 | 17.8561106 | 3.158491513 | 0.142857143 |

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| Group |  |  |  |  |  |  |  |  |  |  |  |
| Caverton Offshore Support  Group | 2003 | 2.63 | 1 | 1 | 1 | 1 | 0.94 | 7.39826592 | 14.08681792 | 1.22406268 | 0.142857143 |
| Caverton Offshore Support  Group | 2004 | 1.72 | 1 | 1 | 1 | 0 | 0.92 | 7.43575678 | 23.04901142 | 1.207922325 | 0.142857143 |
| Caverton Offshore Support  Group | 2005 | 1.67 | 1 | 1 | 1 | 1 | 0.91 | 7.51169123 | 20.79527166 | 1.07160585 | 0.285714286 |
| Caverton Offshore Support  Group | 2006 | 1.62 | 1 | 1 | 1 | 0 | 0.9 | 7.58856975 | -45.0237603 | 0.652636225 | 0.142857143 |
| Caverton Offshore Support  Group | 2007 | 1.66 | 0 | 1 | 1 | 0 | 0.9 | 7.58755856 | 1.573396238 | 0.690511484 | 0.142857143 |
| Caverton Offshore Support  Group | 2008 | 1.31 | 1 | 1 | 1 | 0 | 0.9 | 7.53006665 | -21.1668619 | 0.758730337 | 0.285714286 |
| Caverton Offshore Support  Group | 2009 | 1.25 | 1 | 1 | 1 | 0 | 0.89 | 6.90536407 | -230.383279 | 0.989461374 | 0.142857143 |
| Caverton Offshore Support  Group | 2010 | 1.11 | 1 | 1 | 1 | 1 | 0.63 | 7.03598976 | -20.5971441 | 0.768765874 | 0.285714286 |
| Caverton Offshore Support  Group | 2011 | 1.38 | 1 | 1 | 1 | 1 | 0.63 | 7.13081605 | 1.422155689 | 0.884229662 | 0.285714286 |
| Caverton Offshore Support  Group | 2012 | 1.10 | 1 | 1 | 1 | 1 | 0.55 | 7.17484449 | 9.873417722 | 1.1302518 | 0.285714286 |
| Caverton Offshore Support  Group | 2013 | 1.09 | 1 | 1 | 1 | 1 | 0.42 | 7.16010822 | -72.8508325 | 1.091661767 | 0.285714286 |
| Caverton Offshore Support  Group | 2014 | 1.00 | 1 | 1 | 1 | 1 | 0.44 | 7.03374534 | -0.25614754 | 0.97965826 | 0.285714286 |
| Caverton Offshore Support  Group | 2015 | 0.86 | 1 | 1 | 1 | 1 | 0.61 | 7.04406915 | -49.6667725 | 0.967960332 | 0.285714286 |
| Caverton Offshore Support  Group | 2016 | 0.88 | 1 | 1 | 1 | 1 | 0.5 | 6.91317783 | 23.04347826 | 1.020805746 | 0.285714286 |
| Caverton Offshore Support  Group | 2017 | 1.15 | 1 | 1 | 1 |  | 0.73 | 7.01300585 | 5.874125874 | 0.80338071 | 0.285714286 |
| Caverton Offshore Support  Group | 2018 | 1.11 | 0 | 1 | 1 | 0 | 0.35 | 7.0531553 | 17.69991015 | 0.719099379 | 0.285714286 |
| Conoil | 1997 | 2.50 | 0 | 1 | 1 | 0 | 0.28 | 7.94793383 | -7.96737767 | 0.750017696 | 0.285714286 |
| Conoil | 1998 | 3.02 | 1 | 1 | 1 | 0 | 0.22 | 7.94720516 | 27.1815958 | 1.030584476 | 0.285714286 |
| Conoil | 1999 | 2.46 | 0 | 1 | 1 | 0 | 0.24 | 8.14122836 | 31.37742156 | 1.142213413 | 0.285714286 |
| Conoil | 2000 | 2.04 | 1 | 1 | 1 | 1 | 0.14 | 8.18934497 | 37.75406607 | 1.74908829 | 0.571428571 |
| Conoil | 2001 | 1.14 | 1 | 1 | 1 | 1 | 0.23 | 8.17750535 | 42.15359265 | 1.172196224 | 0.5 |
| Conoil | 2002 | 0.85 | 1 | 0 | 1 | 0 | 0.36 | 8.23615441 | 36.2595252 | 1.356785498 | 0.571428571 |
| Conoil | 2003 | 1.12 | 1 |  | 1 |  | 0.28 | 8.25293591 | 45.26878868 | 1.28732999 | 0.714285714 |
| Conoil | 2004 | 1.71 | 0 | 1 | 1 | 0 | 0.61 | 8.3565254 | 52.9093949 | 1.111010628 | 0.571428571 |
| Conoil | 2005 | 1.29 | 0 | 1 | 1 | 0 | 0.68 | 8.40831762 | 37.33564801 | 1.255836526 | 0.714285714 |
| Conoil | 2006 | 1.75 | 0 | 1 | 1 | 0 | 0.69 | 8.38931898 | 31.57582991 | 1.25559704 | 0.571428571 |
| Conoil | 2007 | 1.19 | 0 | 1 | 1 | 0 | 0.53 | 7.6880042 | 10.04505401 | 1.137188611 | 0.285714286 |
| Conoil | 2008 | 1.37 | 0 | 1 | 1 | 0 | 0.66 | 7.7041156 | 42.84774943 | 5 | 0.5 |
| Conoil | 2009 | 1.84 | 0 | 1 | 1 | 0 | 0.57 | 7.6907938 | 48.98801134 | 4.454655445 | 0.5 |
| Conoil | 2010 | 2.27 | 0 | 1 | 1 | 0 | 0.72 | 7.89971251 | 27.81292423 | 3.158290689 | 0.714285714 |
| Conoil | 2011 | 1.97 |  |  |  |  | 0.6 | 8.07364839 | 11.5656222 | 1.489207802 | 0.714285714 |
| Conoil | 2012 | 1.40 | 0 | 1 | 1 | 0 | 0.58 | 8.18329147 | 11.27550113 | 1.635304346 | 0.714285714 |
| Conoil | 2013 | 0.77 | 0 | 1 | 1 | 0 | 0.55 | 8.1816968 | 15.40159084 | 1.458817012 | 0.857142857 |
| Conoil | 2014 | 0.75 | 0 | 1 | 1 | 0 | 0.61 | 8.20704623 | 21.52108252 | 1.422355099 | 0.928571429 |
| Conoil | 2015 | 0.73 | 0 | 1 | 1 | 0 | 0.63 | 8.48554942 | 30.40406163 | 2.202750441 | 0.857142857 |
| Conoil | 2016 | 0.39 | 1 | 1 | 1 | 0 | 0.62 | 8.65611009 | 20.33774262 | 2.139411515 | 0.928571429 |
| Conoil | 2017 | 1.00 | 1 | 1 | 1 | 0 | 0.62 | 6.44260988 | 15.32671473 | 1.58254925 | 0.928571429 |
| Conoil | 2018 | 0.46 | 1 | 1 | 1 | 0 | 0.65 | 6.93583412 | 11.31883113 | 2.792835252 | 0.285714286 |
| Dangote Flour Mills | 1997 | 0.26 | 0 | 0 | 1 | 0 | 0.57 | 6.88234042 | 11.14196283 | 2.763054647 | 0.285714286 |
| Dangote Flour Mills | 1998 | 0.98 | 0 | 1 | 0 | 0 | 0.26 | 6.91732545 | 7.608401612 | 3.462708014 | 0.5 |
| Dangote Flour Mills | 1999 | 1.68 | 0 | 1 | 0 | 0 | 0.39 | 6.95026854 | 8.833121092 | 0.979056494 | 0.285714286 |
| Dangote Flour Mills | 2000 | 1.26 | 0 | 1 | 0 | 0 | 0.34 | 6.99115193 | 3.925351376 | 0.753400773 | 0.285714286 |
| Dangote Flour Mills | 2001 | 1.43 | 0 | 1 | 0 | 0 | 0.41 | 7.07328787 | 4.140554364 | 0.824529705 | 0.285714286 |
| Dangote Flour Mills | 2002 | 1.42 | 0 | 1 | 0 | 0 | 0.41 | 7.12751744 | -4.55615115 | 0.886220103 | 0.285714286 |
| Dangote Flour Mills | 2003 | 5.66 | 0 | 1 | 0 | 0 | 0.38 | 7.12751744 | 4.6859061 | 0.818518188 | 0.285714286 |
| Dangote Flour Mills | 2004 | 4.86 | 0 | 1 | 0 | 0 | 0.37 | 7.20772671 | 7.585963589 | 0.835324711 | 0.285714286 |
| Dangote Flour Mills | 2005 | 7.02 |  |  |  |  | 0.4 | 6.6873669 | 4.306563085 | 0.819528488 | 0.285714286 |
| Dangote Flour Mills | 2006 | 1.77 | 0 | 1 | 1 | 0 | 1.3 | 6.71148337 | 13.63878869 | 1.062221572 | 0.285714286 |
| Dangote Flour Mills | 2007 | 2.90 | 0 | 1 | 1 | 0 | 0.83 | 6.76463291 | 7.820068509 | 2.580998583 | 0.285714286 |
| Dangote Flour Mills | 2008 | 1.38 | 0 | 1 | 1 | 0 | 0.8 | 6.81250713 | -2.5511631 | 3.200895658 | 0.285714286 |
| Dangote Flour Mills | 2009 | 1.38 | 0 | 1 | 1 | 0 | 0.77 | 6.86729291 | 6.49097739 | 0.864940568 | 0.285714286 |

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| Dangote Flour Mills | 2010 | 1.11 | 0 | 1 | 1 | 0 | 0.72 | 6.87826568 | 7.573755149 | 0.609761956 | 0.285714286 |
| Dangote Flour Mills | 2011 | 0.92 | 0 | 1 | 1 | 0 | 0.72 | 6.82069257 | 5.238265316 | 0.612688797 | 0.5 |
| Dangote Flour Mills | 2012 | 1.55 | 0 | 1 | 1 | 0 | 0.65 | 6.83938206 | -37.9611072 | 0.727413566 | 0.285714286 |
| Dangote Flour Mills | 2013 | 1.48 | 1 | 1 | 1 | 0 | 0.63 | 6.86294021 | 11.63491683 | 0.64485133 | 0.285714286 |
| Dangote Flour Mills | 2014 | 1.01 | 0 | 1 | 1 | 0 | 0.27 | 6.91768507 | 2.999101716 | 0.662201958 | 0.5 |
| Dangote Flour Mills | 2015 | 1.55 | 0 | 1 | 1 | 0 | 0.25 | 6.08018187 | 6.300518204 | 0.668818941 | 0.571428571 |
| Dangote Flour Mills | 2016 | 1.84 | 0 | 1 | 1 | 0 | 0.26 | 6.25849601 | 36.69972478 | 3 | 0.357142857 |
| Dangote Flour Mills | 2017 | 3.67 | 0 | 0 | 1 | 1 | 0.22 | 6.70468516 | 36.35235357 | 1.7 | 0.285714286 |
| Dangote Flour Mills | 2018 | 1.73 | 0 | 0 | 1 | 0 | 0.26 | 6.72876191 | 2.073737502 | 1.6 | 0.285714286 |
| Fidson Healthcare | 1997 | 1.33 | 0 | 0 | 1 | 1 | 0.47 | 6.71568912 | 19.97704073 | 1.697689482 | 0.285714286 |
| Fidson Healthcare | 1998 | 1.25 | 0 | 0 | 1 | 1 | 0.65 | 6.70072612 | 6.596246126 | 1.499028784 | 0.285714286 |
| Fidson Healthcare | 1999 | 0.73 |  |  |  |  | 1.07 | 6.66330564 | 6.153427507 | 1.115778489 | 0.285714286 |
| Fidson Healthcare | 2000 | 0.72 | 0 | 1 | 1 | 0 | 0.55 | 6.66587214 | 4.892732306 | 0.581157088 | 0.5 |
| Fidson Healthcare | 2001 | 0.72 | 0 | 1 | 1 | 0 | 0.74 | 6.60740623 | 2.843090545 | 0.562353009 | 0.285714286 |
| Fidson Healthcare | 2002 | 0.65 | 0 | 1 | 1 | 0 | 0.66 | 6.55455094 | 1.682316298 | 0.442508911 | 0.714285714 |
| Fidson Healthcare | 2003 | 1.70 | 0 | 1 | 1 | 0 | 0.7 | 6.50707155 | -23.4397986 | 0.477582966 | 0.785714286 |
| Fidson Healthcare | 2004 | 1.89 | 0 | 1 | 1 | 0 | 0.65 | 6.86273301 | 3.131748987 | 2.131765033 | 0.5 |
| Fidson Healthcare | 2005 | 2.14 | 0 | 1 | 1 | 0 | 0.69 | 6.72145207 | 6.063505258 | 2.494061973 | 0.5 |
| Fidson Healthcare | 2006 | 1.64 | 1 | 1 | 1 | 0 | 0.73 | 6.69834347 | -4.81528525 | 2.694474695 | 0.5 |
| Fidson Healthcare | 2007 | 2.13 | 1 | 1 | 1 | 0 | 0.63 | 6.6814038 | -8.42950902 | 0.894931133 | 0.5 |
| Fidson Healthcare | 2008 | 1.97 | 0 | 1 | 1 | 0 | 0.17 | 7.02181006 | -5.00840708 | 1.205436944 | 0.5 |
| Fidson Healthcare | 2009 | 1.87 | 0 | 1 | 1 | 0 | 0.26 | 7.22934833 | 2.695643348 | 0.601812274 | 0.5 |
| Fidson Healthcare | 2010 | 2.44 | 0 | 1 | 1 | 0 | 0.31 | 7.24891689 | 1.189873748 | 0.359779691 | 0.5 |
| Fidson Healthcare | 2011 | 2.35 | 0 | 1 | 1 | 0 | 0.52 | 7.25469842 | 2.695751771 | 0.359102404 | 0.5 |
| Fidson Healthcare | 2012 | 1.94 | 0 | 1 | 1 | 0 | 0.66 | 7.28986166 | 2.084959483 | 0.355354368 | 0.5 |
| Fidson Healthcare | 2013 | 1.16 | 0 | 1 | 1 | 0 | 0.73 | 5.50750101 | 3.140809524 | 0.368466604 | 0.5 |
| Fidson Healthcare | 2014 | 2.38 | 0 | 1 | 1 | 0 | 0.87 | 5.58713264 | -217.941445 | 7.97279455 | 0.285714286 |
| Fidson Healthcare | 2015 | 1.91 |  |  |  |  | 0.74 | 5.94070271 | -2.48414581 | 18.63350453 | 0.285714286 |
| Fidson Healthcare | 2016 | 1.05 | 1 | 1 | 1 | 0 | 0.34 | 5.94070271 | 12.56924751 | 12.27508156 | 0.285714286 |
| Fidson Healthcare | 2017 | 0.97 | 1 | 1 | 1 | 0 | 0.44 | 6.03207777 | 7.603717057 | 3.070373487 | 0.285714286 |
| Fidson Healthcare | 2018 | 0.90 | 1 | 1 | 1 | 0 | 0.38 | 6.19108532 | 6.704503463 | 1.852486119 | 0.285714286 |
| Forte Oil | 1997 | 0.90 | 1 | 1 | 1 | 0 | 0.4 | 6.31645703 | 20.00457883 | 1.328971876 | 0.285714286 |
| Forte Oil | 1998 | 0.92 | 1 | 1 | 1 | 0 | 0.5 | 6.56473753 | 22.77180002 | 1.872061326 | 0.285714286 |
| Forte Oil | 1999 | 0.89 | 1 | 1 | 1 | 0 | 0.57 | 6.75987822 | 12.18375122 | 2.648303658 | 0.285714286 |
| Forte Oil | 2000 | 1.05 | 0 | 1 | 1 | 0 | 0.67 | 6.65986992 | 12.81164657 | 1.758954357 | 0.285714286 |
| Forte Oil | 2001 | 2.20 | 0 | 0 | 1 | 0 | 0.62 | 6.59819631 | 9.64270815 | 1.440134216 | 0.428571429 |
| Forte Oil | 2002 | 1.26 | 0 | 0 | 1 | 0 | 0.32 | 6.64884781 | 8.079558453 | 1.662569371 | 0.5 |
| Forte Oil | 2003 | 1.71 | 0 | 0 | 1 | 0 | 0.48 | 6.75785953 | 7.964249231 | 3.168910316 | 0.5 |
| Forte Oil | 2004 | 0.82 | 0 | 1 | 1 | 0 | 0.5 | 6.78914676 | 15.1786045 | 2.33308017 | 0.357142857 |
| Forte Oil | 2005 | 0.56 | 0 | 1 | 1 | 0 | 0.57 | 6.83358769 | 8.577462379 | 1.265894689 | 0.285714286 |
| Forte Oil | 2006 | 0.65 | 0 | 0 | 1 | 0 | 0.59 | 6.84740397 | 6.692726324 | 1.322955607 | 0.285714286 |
| Forte Oil | 2007 | 0.66 | 0 | 1 | 1 | 0 | 0.59 | 6.90684157 | 8.099030134 | 1.090695307 | 0.285714286 |
| Forte Oil | 2008 | 0.71 | 0 | 1 | 1 | 0 | 0.5 | 6.91169271 | 2.424515435 | 0.809180998 | 0.357142857 |
| Forte Oil | 2009 | 0.77 | 1 | 1 | 1 | 0 | 0.45 | 6.90825478 | -3.40316789 | 0.893590454 | 0.285714286 |
| Forte Oil | 2010 | 0.82 | 0 | 1 | 1 | 0 | 0.49 | 6.91575525 | 2.048181629 | 0.83105268 | 0.5 |
| Forte Oil | 2011 | 0.88 | 0 | 1 | 1 | 0 | 0.6 | 7.24093348 | 2.186445471 | 0.785827836 | 0.5 |
| Forte Oil | 2012 | 1.09 | 0 | 1 | 1 | 0 | 0.97 | 7.26859784 | 60.56467954 | 3.184677449 | 0.285714286 |
| Forte Oil | 2013 | 2.65 | 0 | 1 | 1 | 1 | 0.98 | 7.29917837 | 50.30818183 | 3.1778163 | 0.5 |
| Forte Oil | 2014 | 1.94 | 0 | 1 | 1 | 1 | 0.96 | 7.34379763 | 60.57601138 | 4.394709425 | 0.285714286 |
| Forte Oil | 2015 | 3.20 | 0 | 1 | 1 | 1 | 0.97 | 7.17113266 | 68.04578904 | 2.226044619 | 0.285714286 |
| Forte Oil | 2016 | 1.26 | 0 | 1 | 1 | 0 | 0.97 | 7.43094139 | 65.20920814 | 4.269206208 | 0.285714286 |
| Forte Oil | 2017 | 1.06 | 1 | 1 | 1 | 0 |  | 7.52587012 | 90.76107016 | 2.483140597 | 0.285714286 |
| Forte Oil | 2018 | 0.97 | 1 | 1 | 1 | 0 | 0.77 | 7.60989865 | 43.67697992 | 1.957117752 | 0.285714286 |
| Ikeja Hotel | 1997 | 1.01 | 1 | 1 | 1 | 0 | 0.67 | 7.69219962 | 36.49527854 | 1.625364038 | 0.357142857 |
| Ikeja Hotel | 1998 | 1.09 | 1 | 1 | 1 | 0 | 0.45 | 7.73297315 | 47.1811771 | 1.626822939 | 0.285714286 |
| Ikeja Hotel | 1999 | 0.98 | 1 | 1 | 1 | 0 | 0.38 | 5.35006767 | 31.71777525 | 1.716189252 | 0.214285714 |
| Ikeja Hotel | 2000 | 1.14 | 1 | 1 | 1 | 0 | 0.41 | 5.35682484 | -5.11441791 | 1.046593005 | 0.285714286 |
| Ikeja Hotel | 2001 | 1.06 | 1 | 1 | 1 | 0 | 0.47 | 5.75676995 | 4.376419945 | 1.344613223 | 0.285714286 |
| Ikeja Hotel | 2002 | 0.93 | 1 | 1 | 1 | 0 | 0.55 | 5.76467816 | 4.337100111 | 6.466244108 | 0.285714286 |
| Ikeja Hotel | 2003 | 0.99 | 1 | 1 | 1 | 1 | 0.65 | 5.7422749 | -4.6857101 | 3.671508784 | 0.285714286 |
| Ikeja Hotel | 2004 | 0.99 | 0 | 1 | 1 | 0 | 0.75 | 5.76158959 | -8.35058473 | 3.504091943 | 0.285714286 |
| Ikeja Hotel | 2005 | 0.95 | 1 | 1 | 1 | 1 | 0.7 | 5.76796431 | -6.55998596 | 3.004177993 | 0.357142857 |
| Ikeja Hotel | 2006 | 0.95 | 0 | 1 | 1 | 1 | 0.62 | 5.72116322 | 0.463034277 | 2.181691973 | 0.285714286 |
| Ikeja Hotel | 2007 | 0.94 | 0 | 1 | 1 | 1 | 0.62 | 5.6522918 | -5.34401248 | 0.7966127 | 0.428571429 |
| Ikeja Hotel | 2008 | 0.94 | 0 | 1 | 1 | 1 | 0.66 | 5.62607437 | -24.9064469 | 0.911164131 | 0.142857143 |
| Ikeja Hotel | 2009 | 1.25 | 0 | 1 | 1 | 1 | 0.68 | 7.23492845 | -48.8604483 | 1.129873752 | 0.428571429 |
| Ikeja Hotel | 2010 | 1.45 | 0 | 1 | 1 | 1 | 0.82 | 7.32090564 | 38.76163863 | 2.281556561 | 0.571428571 |
| Ikeja Hotel | 2011 | 1.78 | 1 | 1 | 1 | 1 | 0.69 | 7.05424685 | 48.43367269 | 2.747789455 | 0.357142857 |
| Ikeja Hotel | 2012 | 1.22 | 1 | 1 | 1 | 1 | 0.56 | 7.13809163 | -15.9646791 | 7.739166654 | 0.285714286 |
| Ikeja Hotel | 2013 | 1.22 | 1 | 1 | 1 | 1 | 0.67 | 7.61363153 | 58.0352841 | 2.581988528 | 0.285714286 |
| Ikeja Hotel | 2014 | 1.01 | 1 | 1 | 1 | 1 | 0.63 | 7.86153583 | 15.58488092 | 1.014738034 | 0.285714286 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ikeja Hotel | 2015 | 0.98 | 1 | 1 | 1 | 1 | 0.56 | 7.74504111 | 7.442548023 | 0.971344747 | 0.285714286 |
| Ikeja Hotel | 2016 | 1.34 | 1 | 1 | 1 | 1 | 0.51 | 7.81752984 | 1.987796794 | 0.808652109 | 0.285714286 |
| Ikeja Hotel | 2017 | 1.44 | 1 | 1 | 1 | 1 | 0.52 | 7.76227803 | 3.23202022 | 0.824325065 | 0.285714286 |
| Ikeja Hotel | 2018 | 1.11 | 1 | 1 | 1 | 1 | 0.55 | 7.82538548 | 3.691757508 | 0.892854885 | 0.285714286 |
| MRS Oil Nigeria | 1997 | 0.82 | 1 | 1 | 1 | 1 | 0.53 | 6.71306444 | 4.46017328 | 0.868734801 | 0.285714286 |
| MRS Oil Nigeria | 1998 | 4.68 | 0 | 1 | 1 | 0 | 0.84 | 7.03275169 | 17.40025061 | 0.9 | 0.5 |
| MRS Oil Nigeria | 1999 | 1.39 | 0 | 1 | 1 | 0 | 0.71 | 6.99686999 | 11.53240504 | 0.8 | 0.285714286 |
| MRS Oil Nigeria | 2000 | 0.56 | 0 | 1 | 1 | 0 | 0.83 | 7.07896426 | -21.5525172 | 0.6 | 0.285714286 |
| MRS Oil Nigeria | 2001 | 0.68 | 0 | 1 | 1 | 0 | 0.46 | 7.22312262 | 6.140273493 | 0.7 | 0.285714286 |
| MRS Oil Nigeria | 2002 | 0.96 | 0 | 1 | 1 | 0 | 0.6 | 7.34773457 | 15.61976553 | 0.927573872 | 0.285714286 |
| MRS Oil Nigeria | 2003 | 1.13 | 0 | 1 | 1 | 0 | 0.74 | 7.4212336 | 12.32549784 | 0.903353845 | 0.285714286 |
| MRS Oil Nigeria | 2004 | 1.14 | 0 | 1 | 1 | 0 | 0.69 | 7.50847209 | -157.995901 | 1.080530913 | 0.714285714 |
| MRS Oil Nigeria | 2005 | 1.33 | 0 | 1 | 1 | 0 | 0.76 | 7.62727063 | 25.94633155 | 1.050098306 | 0.714285714 |
| MRS Oil Nigeria | 2006 | 1.11 | 0 | 1 | 1 | 0 | 0.53 | 7.66365327 | 65.79210931 | 0.94738403 | 0.714285714 |
| MRS Oil Nigeria | 2007 | 1.14 | 0 | 1 | 1 | 0 | 0.62 | 5.39018238 | 11.86179971 | 0.920920391 | 0.285714286 |
| MRS Oil Nigeria | 2008 | 1.59 | 0 | 1 | 1 | 0 | 0.59 | 6.78449619 | 1730.011587 | 5.8 | 0.5 |
| MRS Oil Nigeria | 2009 | 1.24 | 0 | 1 | 1 | 0 | 0.56 | 6.87412461 | 36.28265192 | 6.737501107 | 0.5 |
| MRS Oil Nigeria | 2010 | 0.98 | 0 | 1 | 1 | 0 | 0.46 | 6.91131744 | 33.73099909 | 4.953443507 | 0.5 |
| MRS Oil Nigeria | 2011 | 0.99 | 0 | 1 | 1 | 0 | 1 | 6.87555319 | 39.77542647 | 1.756219778 | 0.5 |
| MRS Oil Nigeria | 2012 | 0.96 | 0 | 0 | 1 | 0 | 0.12 | 7.0020339 | 33.25933401 | 2.767747678 | 0.5 |
| MRS Oil Nigeria | 2013 | 0.94 | 1 | 0 | 1 | 1 | 0.71 | 7.0289591 | 38.9032256 | 1.800869125 | 0.5 |
| MRS Oil Nigeria | 2014 | 0.99 | 1 | 1 | 1 | 1 | 0.71 | 7.05809057 | 42.05661625 | 1.540906923 | 0.5 |
| MRS Oil Nigeria | 2015 | 0.96 | 1 | 1 | 1 | 0 | 0.77 | 7.09884733 | 39.16565326 | 3.03113443 | 0.5 |
| MRS Oil Nigeria | 2016 | 0.96 | 0 | 1 | 1 | 0 | 0.8 | 7.21204973 | 29.60119582 | 2.781862477 | 0.5 |
| MRS Oil Nigeria | 2017 | 0.73 | 1 | 1 | 1 | 0 | 0.73 | 6.5955607 | 29.70621874 | 1.715352275 | 0.571428571 |
| MRS Oil Nigeria | 2018 | 0.82 | 1 | 1 | 1 | 0 | 0.95 | 6.69278111 | 36.18588531 | 4 | 0.285714286 |
| International Breweries | 1997 | 1.05 | 1 | 1 | 1 | 0 | 0.95 | 6.21106044 | 34.71037328 | 4.877436196 | 0.142857143 |
| International Breweries | 1998 | 0.97 | 1 | 1 | 1 | 1 | 0.81 | 6.2929453 | 19.03991099 | 10.85211801 | 0.142857143 |
| International Breweries | 1999 | 0.97 |  |  | 1 |  | 0.75 | 6.15040672 | 26.67056961 | 3.367317824 | 0.142857143 |
| International Breweries | 2000 | 0.99 | 0 | 1 | 1 | 0 | 0.32 | 6.99501112 | 23.58312467 | 6.018046682 | 0.142857143 |
| International Breweries | 2001 | 0.93 | 0 | 1 | 1 | 0 | 0.19 | 7.03955224 | 14.69547786 | 1.29562535 | 0.142857143 |
| International Breweries | 2002 | 0.93 | 1 | 1 | 1 | 1 | 0.18 | 7.13351285 | 10.90155692 | 1.295113296 | 0.285714286 |
| International Breweries | 2003 | 0.96 | 1 | 1 | 1 | 1 | 0.25 | 7.15624586 | 13.02431265 | 1.226454659 | 0.357142857 |
| International Breweries | 2004 | 0.97 | 1 | 1 | 1 | 1 | 0.25 | 7.1740359 | 9.712255348 | 1.099642567 | 0.142857143 |
| International Breweries | 2005 | 1.22 | 0 | 1 | 1 | 0 | 0.4 | 6.18838422 | 8.821448647 | 1.088289936 | 0.214285714 |
| International Breweries | 2006 | 1.69 | 0 | 1 | 1 | 0 | 0.31 | 6.55715927 | 112.4858958 | 1.546694873 | 0.5 |
| International Breweries | 2007 | 2.46 | 1 | 1 | 1 | 1 | 0.22 | 6.41693609 | 5.432509352 | 1.280408121 | 0.5 |
| International Breweries | 2008 | 1.44 | 0 | 1 | 1 | 0 | 0.4 | 6.42060802 | -15.8726956 | 1.604955491 | 0.5 |
| International Breweries | 2009 | 1.19 | 0 | 1 | 1 | 0 | 0 | 6.3562156 | 215.0514605 | 1.211913575 | 0.285714286 |
| International Breweries | 2010 | 1.23 | 1 | 1 | 1 | 0 | 0.33 | 6.58046023 | 62.15467995 | 0.837356808 | 0.285714286 |
| International Breweries | 2011 | 1.26 | 1 | 1 | 1 | 0 | 0.35 | 6.72902897 | 14.95572729 | 0.775206191 | 0.285714286 |
| International Breweries | 2012 | 1.52 | 1 | 1 | 1 | 0 | 0.5 | 6.74377316 | -751.818182 | 1.250371605 | 0.285714286 |
| International Breweries | 2013 | 3.96 | 1 | 1 | 1 | 0 | 0.23 | 6.82604498 | -14.0082576 | 1.303466951 | 0.571428571 |
| International Breweries | 2014 | 1.26 | 1 | 1 | 1 | 0 | 0.28 | 6.89866903 | 60.54735287 | 1.206231771 | 0.571428571 |
| International Breweries | 2015 | 2.41 | 0 | 0 | 1 | 0 | 0.33 | 6.65052287 | 7.059216241 | 1.117001617 | 0.571428571 |
| International Breweries | 2016 | 1.60 | 0 | 1 | 1 | 0 | 1.68 | 6.43623502 | 5.21751269 | 1.058111867 | 0.714285714 |
| International Breweries | 2017 | 1.00 | 0 | 1 | 1 | 0 | 1.42 | 6.51593104 | 7.169660723 | 1.58018279 | 0.714285714 |
| International Breweries | 2018 | 1.43 | 0 | 1 | 1 | 0 | 0.66 | 6.4607068 | 6.013616266 | 1.858856425 | 0.5 |
| Nestle Nigeria | 1997 | 1.53 | 1 | 1 | 1 | 0 | 0.67 | 6.6137131 | -42.4632463 | 1.186162823 | 0.5 |
| Nestle Nigeria | 1998 | 1.38 | 1 | 1 | 1 | 0 | 0.67 | 6.48588816 | -13.2668237 | 1.215781068 | 0.5 |
| Nestle Nigeria | 1999 | 3.23 | 1 | 1 | 1 | 0 | 0.31 | 6.46109977 | 11.19588668 | 1.048691189 | 0.5 |
| Nestle Nigeria | 2000 | 2.43 | 1 | 1 | 1 | 0 | 0.25 | 6.46105996 | -4.39723593 | 0.910888984 | 0.5 |
| Nestle Nigeria | 2001 | 2.69 | 1 | 1 | 1 | 0 | 0.23 | 6.4444333 | 7.334981454 | 1.000429459 | 0.5 |
| Nestle Nigeria | 2002 | 1.89 | 0 | 1 | 1 | 0 | 1 | 6.34247006 | 14.01686305 | 1.05709207 | 0.357142857 |
| Nestle Nigeria | 2003 | 2.27 | 0 | 1 | 1 | 0 | 0.56 | 6.00979666 | -29.0046918 | 1.205195342 | 0.428571429 |
| Nestle Nigeria | 2004 | 1.99 | 0 | 0 | 1 | 0 | 0.67 | 6.71254861 | 2.374121748 | 5.60398821 | 0.285714286 |
| Nestle Nigeria | 2005 | 1.44 | 0 | 0 | 1 | 0 | 0.59 | 6.69879113 | 10.11718287 | 3.129374501 | 0.285714286 |
| Nestle Nigeria | 2006 | 1.51 | 1 | 1 | 1 | 0 | 0.59 | 6.74526659 | 11.43414462 | 3.44571888 | 0.285714286 |
| Nestle Nigeria | 2007 | 1.47 | 0 | 0 | 1 | 0 | 0.64 | 6.84705669 | 18.02648227 | 0.725002991 | 0.142857143 |
| Nestle Nigeria | 2008 | 1.42 | 0 | 0 | 1 | 0 | 0.6 | 6.80012158 | 14.7543571 | 0.592786565 | 0.285714286 |
| Nestle Nigeria | 2009 | 1.45 | 0 | 0 | 1 | 0 | 0.32 | 6.8926021 | 6.105957873 | 0.764119506 | 0.285714286 |
| Nestle Nigeria | 2010 | 1.41 | 0 | 1 | 1 | 0 | 1.12 | 7.00198786 | 10.5870631 | 0.773196738 | 0.428571429 |
| Nestle Nigeria | 2011 | 1.67 | 0 | 1 | 1 | 0 | 1 | 7.04918382 | 8.413241666 | 0.95392067 | 0.285714286 |
| Nestle Nigeria | 2012 | 1.50 | 0 | 1 | 1 | 0 | 0.96 | 7.09636454 | 26.00373318 | 0.848722048 | 0.285714286 |
| Nestle Nigeria | 2013 | 1.60 | 0 | 1 | 1 | 0 | 1.04 | 7.41903384 | 11.51250725 | 0.793162983 | 0.285714286 |
| Nestle Nigeria | 2014 | 1.77 | 0 | 1 | 1 | 0 | 1 | 7.32740635 | 88.99199936 | 4.394440969 | 0.5 |
| Nestle Nigeria | 2015 | 1.60 | 0 | 1 | 1 | 0 | 0.92 | 7.46478085 | 87.25856932 | 7.244027417 | 0.5 |
| Nestle Nigeria | 2016 | 1.70 | 0 | 1 | 1 | 0 | 1.12 | 7.64591693 | 92.25310146 | 5.73181292 | 0.5 |
| Nestle Nigeria | 2017 | 1.90 | 0 | 0 | 1 | 0 | 0.78 | 7.78065613 | 92.78867899 | 3.510715455 | 0.714285714 |
| Nestle Nigeria | 2018 | 1.08 | 1 | 1 | 1 | 0 | 0.52 | 7.89057913 | 84.77504032 | 4.688879982 | 0.285714286 |
| Nigeria-German Chemicals | 1997 | 1.58 | 1 | 1 | 1 | 1 | 0.81 | 7.94921048 | 71.07481418 | 4.796122571 | 0.857142857 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Nigeria-German Chemicals | 1998 | 1.30 | 1 | 1 | 1 | 0 | 0.39 | 8.03425728 | 61.83100047 | 4.830673734 | 0.642857143 |
| Nigeria-German Chemicals | 1999 | 0.69 | 0 | 1 | 1 | 0 | 0.47 | 8.02556009 | 54.83036855 | 7.766187629 | 0.642857143 |
| Nigeria-German Chemicals | 2000 | 0.90 | 1 | 1 | 1 | 0 | 0.43 | 8.0763311 | 61.86939586 | 8.706342153 | 0.642857143 |
| Nigeria-German Chemicals | 2001 | 1.08 | 1 | 1 | 1 | 0 | 0.45 | 7.87884947 | 62.45357641 | 6.316181724 | 0.714285714 |
| Nigeria-German Chemicals | 2002 | 1.18 | 1 | 1 | 1 | 0 | 0.37 | 7.95688021 | 30.07091457 | 4.134326109 | 0.785714286 |
| Nigeria-German Chemicals | 2003 | 0.87 | 1 | 1 | 1 |  | 0.92 | 8.01875308 | 43.86642331 | 4.018854425 | 0.785714286 |
| Nigeria-German Chemicals | 2004 | 1.37 | 1 | 1 | 1 | 0 | 0.34 | 8.02933459 | 79.74323952 | 4.347297942 | 0.714285714 |
| Nigeria-German Chemicals | 2005 | 1.05 | 1 | 1 | 1 | 0 | 0.4 | 8.0583859 | 59.93136067 | 4.198536187 | 0.714285714 |
| Nigeria-German Chemicals | 2006 | 1.08 | 1 | 1 | 1 | 0 | 0.33 | 8.37236179 | 60.45607124 | 5.181617465 | 0.785714286 |
| Nigeria-German Chemicals | 2007 | 0.82 | 1 | 1 | 1 | 0 | 0.36 | 8.40420684 | 48.92168904 | 3.461929772 | 0.714285714 |
| Nigeria-German Chemicals | 2008 | 4.36 | 1 | 0 | 1 | 0 | 0.36 | 8.40270772 | 40.71008258 | 4.048998275 | 0.714285714 |
| Nigeria-German Chemicals | 2009 | 2.09 | 1 | 0 | 1 | 1 | 0.39 | 8.5431105 | 38.34163535 | 5.489259364 | 0.928571429 |
| Nigeria-German Chemicals | 2010 | 1.84 | 1 | 0 | 1 | 0 | 0.42 | 8.55171669 | 24.72621477 | 4.161201608 | 0.928571429 |
| Nigeria-German Chemicals | 2011 | 1.89 | 1 | 0 | 1 | 0 | 0.5 | 5.92366308 | 22.08437272 | 3.655000851 | 0.857142857 |
| Nigeria-German Chemicals | 2012 | 1.57 | 1 | 1 | 1 | 0 | 0.49 | 6.07813116 | 17.56571371 | 1.7 | 0.142857143 |
| Nigeria-German Chemicals | 2013 | 1.01 | 1 | 1 | 1 | 0 | 0.44 | 6.16466032 | 17.20501728 | 1.003969041 | 0.142857143 |
| Nigeria-German Chemicals | 2014 | 1.00 | 1 | 1 | 1 | 0 | 0.43 | 6.11055066 | 13.63122718 | 2.450945115 | 0.285714286 |
| Nigeria-German Chemicals | 2015 | 0.69 | 1 | 1 | 1 | 0 | 0.43 | 6.08682449 | 36.47264308 | 3.622553214 | 0.142857143 |
| Nigeria-German Chemicals | 2016 | 0.66 | 0 | 1 | 1 | 0 | 0.45 | 6.00831395 | 31.94256692 | 3.046087313 | 0.285714286 |
| Nigeria-German Chemicals | 2017 | 1.67 | 0 | 1 | 1 | 0 | 0.46 | 6.33588957 | 29.64448018 | 3.361774013 | 0.285714286 |
| Nigeria-German Chemicals | 2018 | 2.34 | 0 | 1 | 1 | 0 | 0.41 | 6.34309098 | 17.83008424 | 1.866280046 | 0.285714286 |
| Total Nigeria | 1997 | 2.44 | 1 | 1 | 1 | 0 | 0.45 | 6.48911733 | 6.247793381 | 1.390620808 | 0.285714286 |
| Total Nigeria | 1998 | 1.87 | 0 | 1 | 1 | 0 | 0.51 | 6.7009234 | 6.939136472 | 1.260389342 | 0.285714286 |
| Total Nigeria | 1999 | 1.68 | 0 | 1 | 1 | 0 | 0.57 | 6.21282499 | 5.695465686 | 1.121407256 | 0.285714286 |
| Total Nigeria | 2000 | 1.34 | 0 | 1 | 1 | 0 | 0.54 | 6.28641335 | 6.938271045 | 2.60425118 | 0.285714286 |
| Total Nigeria | 2001 | 1.68 | 0 | 1 | 1 | 0 | 0.63 | 6.37260771 | -17.1599316 | 2.457396531 | 0.285714286 |
| Total Nigeria | 2002 | 1.53 | 0 | 0 | 1 | 0 | 0.69 | 6.44085479 | 8.646351809 | 2.082493265 | 0.285714286 |
| Total Nigeria | 2003 | 1.46 | 0 | 0 | 1 | 0 | 0.82 | 6.40946715 | 27.31015559 | 1.703152521 | 0.285714286 |
| Total Nigeria | 2004 | 1.42 | 0 | 0 | 1 | 0 | 0.68 | 6.61637804 | 12.27271307 | 2.631023907 | 0.285714286 |
| Total Nigeria | 2005 | 0.92 |  |  |  |  | 0.79 | 6.52608431 | 29.34094638 | 1.723439321 | 0.285714286 |
| Total Nigeria | 2006 | 1.55 | 0 | 1 | 1 | 0 | 0.75 | 6.55911832 | 0.37039975 | 1.66982348 | 0.285714286 |
| Total Nigeria | 2007 | 1.29 | 0 | 1 | 1 | 0 | 0.86 | 6.51409795 | 14.02146206 | 1.62322806 | 0.285714286 |
| Total Nigeria | 2008 | 1.67 | 0 | 1 | 1 | 0 | 0.71 | 6.69326656 | 13.16553471 | 1.657082327 | 0.285714286 |
| Total Nigeria | 2009 | 3.34 | 0 | 1 | 1 | 0 | 0.77 | 7.85826414 | -13.4830747 | 1.305925257 | 0.285714286 |
| Total Nigeria | 2010 | 1.26 | 0 | 1 | 1 | 0 | 0.82 | 7.94817924 | 12.61862994 | 1.251262196 | 0.5 |
| Total Nigeria | 2011 | 1.98 | 0 | 1 | 1 | 0 | 0.84 | 8.45905714 | 11.55808795 | 1.105770705 | 0.785714286 |
| Total Nigeria | 2012 | 1.29 | 0 | 1 | 1 | 0 | 0.81 | 8.49934068 | 18.59082118 | 1.378615083 | 0.5 |
| Total Nigeria | 2013 | 0.96 | 1 | 1 | 1 | 0 | 0.76 | 8.51319909 | 18.93688088 | 1.095610228 | 0.5 |
| Total Nigeria | 2014 | 1.45 | 1 | 1 | 1 | 0 | 0.33 | 8.60814555 | 15.100981 | 1.093664882 | 0.785714286 |
| Total Nigeria | 2015 | 2.19 | 1 | 1 | 1 | 0 | 0.43 | 8.71186102 | 0.373678707 | 1.004226605 | 0.571428571 |
| Total Nigeria | 2016 | 1.31 | 1 | 1 | 1 | 0 | 0.44 | 8.77224609 | 10.2381143 | 0.857266463 | 0.285714286 |
| Total Nigeria | 2017 | 0.75 | 1 | 1 | 1 | 0 | 0.53 | 8.94908372 | -2.88003965 | 0.881286262 | 0.714285714 |
| Total Nigeria | 2018 | 0.80 | 1 | 1 | 1 | 0 | 0.64 | 8.97603862 | -393.968796 | 1.148918489 | 0.5 |
| Thomas Wyatt Nigeria | 1997 | 0.72 | 1 | 1 | 1 | 0 | 0.66 | 6.80461989 | -61.2994623 | 1.114659353 | 0.5 |
| Thomas Wyatt Nigeria | 1998 | 0.75 | 1 | 1 | 1 | 0 | 0.85 | 6.84770447 | 11.84742833 | 2.502781339 | 0.285714286 |
| Thomas Wyatt Nigeria | 1999 | 0.94 |  |  |  |  | 0.84 | 6.89160357 | 4.384765579 | 3.016677118 | 0.285714286 |
| Thomas Wyatt Nigeria | 2000 | 1.08 | 1 | 1 | 1 | 1 | 0.71 | 6.90202118 | 28.19200054 | 2.458862143 | 0.285714286 |
| Thomas Wyatt Nigeria | 2001 | 4.00 | 1 | 1 | 1 | 1 | 0.76 | 6.93792522 | 12.62259693 | 2.041839444 | 0.285714286 |
| Thomas Wyatt Nigeria | 2002 | 4.09 | 1 | 1 | 1 | 1 | 0.81 | 7.36857627 | 27.77605232 | 1.136162825 | 0.285714286 |
| Thomas Wyatt Nigeria | 2003 | 4.38 | 1 | 1 | 1 | 1 | 1.06 | 7.49212696 | 20.64028242 | 0.851006969 | 0.285714286 |
| Thomas Wyatt Nigeria | 2004 | 2.82 | 1 | 1 | 1 | 1 | 1.1 | 7.47785383 | 14.06446289 | 1.1238353 | 0.714285714 |
| Thomas Wyatt Nigeria | 2005 | 4.37 | 0 | 1 | 1 | 1 | 0.85 | 7.49129977 | 9.250384155 | 1.709736776 | 0.714285714 |
| Thomas Wyatt Nigeria | 2006 | 3.89 | 1 | 1 | 1 | 1 | 1.28 | 7.30218338 | 6.686305073 | 1.286623411 | 0.714285714 |
| Thomas Wyatt Nigeria | 2007 | 4.09 | 1 | 1 | 1 | 1 | 1.38 | 6.1576571 | 21.80989073 | 1.747196616 | 0.357142857 |
| Thomas Wyatt Nigeria | 2008 | 5.78 | 1 | 1 | 1 | 0 | 0.61 | 6.17539583 | -392.435841 | 1.18736301 | 0.285714286 |
| Thomas Wyatt Nigeria | 2009 | 4.73 | 0 | 1 | 1 | 0 | 0.65 | 6.17247332 | 364.6823306 | 1.372366408 | 0.285714286 |
| Thomas Wyatt Nigeria | 2010 | 3.93 | 0 | 1 | 1 | 0 | 0.67 | 6.0953106 | 107.0639771 | 1.838998808 | 0.285714286 |
| Thomas Wyatt Nigeria | 2011 | 1.08 | 0 | 1 | 1 | 0 | 0.73 | 6.21154715 | 71.39418354 | 2.266142774 | 0.285714286 |
| Thomas Wyatt Nigeria | 2012 | 1.38 | 0 | 1 | 1 | 0 | 0.82 | 6.4098378 | 41.81027027 | 1.971410243 | 0.285714286 |
| Thomas Wyatt Nigeria | 2013 | 1.15 | 0 | 1 | 1 | 0 | 1.06 | 6.44448371 | -2.47478222 | 1.403413481 | 0.285714286 |
| Thomas Wyatt Nigeria | 2014 | 1.06 | 0 | 1 | 1 | 0 | 0.69 | 6.39761608 | 78.53719187 | 0.774426445 | 0.285714286 |
| Thomas Wyatt Nigeria | 2015 | 1.02 |  |  |  |  | 0.71 | 6.45320042 | -14.5967764 | 0.750659834 | 0.5 |
| Thomas Wyatt Nigeria | 2016 | 1.01 | 0 | 1 | 1 | 0 | 0.84 | 6.40994698 | 10.84692506 | 0.731901788 | 0.5 |
| Thomas Wyatt Nigeria | 2017 | 0.97 | 0 | 1 | 1 | 0 | 0.83 | 5.20086144 | 36.92948173 | 0.389831935 | 0.5 |
| Thomas Wyatt Nigeria | 2018 | 1.00 | 0 | 1 | 1 | 0 | 0.85 | 5.00046072 | 8 | 1.00381727 | 0.142857143 |
| Tantalizers | 1997 | 0.99 | 0 | 1 | 1 | 0 | 0.83 | 4.93765466 | 7.172226943 | 0.463944403 | 0.142857143 |
| Tantalizers | 1998 | 0.93 | 0 | 1 | 1 | 0 | 0.85 | 5.06914248 | 1.984700862 | 0.256442541 | 0.142857143 |
| Tantalizers | 1999 | 1.04 | 0 | 1 | 1 | 0 | 0.81 | 5.09269609 | -24.8244887 | 0.97651866 | 0.285714286 |
| Tantalizers | 2000 | 1.28 | 0 | 1 | 1 | 0 | 0.83 | 5.43892347 | 591.5093058 | 1.682895975 | 0.285714286 |
| Tantalizers | 2001 | 1.19 | 1 | 1 | 1 | 0 | 0.74 | 5.34452588 | -76 | 1.257286508 | 0.285714286 |
| Tantalizers | 2002 | 1.05 | 0 | 1 | 1 | 0 | 1.04 | 5.40109367 | -254.07314 | 1.432877305 | 0.285714286 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tantalizers | 2003 | 0.97 | 0 | 1 | 1 | 0 | 0.8 | 5.46087079 | 228.8282434 | 1.416724792 | 0.285714286 |
| Tantalizers | 2004 | 0.94 | 0 | 1 | 1 | 0 | 0.84 | 5.53312229 | -707.874016 | 5.65611353 | 0.285714286 |
| Tantalizers | 2005 | 0.90 | 1 | 1 | 1 | 0 | 0.84 | 6.07689556 | -114.00688 | 4.863344555 | 0.285714286 |
| Tantalizers | 2006 | 0.99 | 0 | 1 | 1 | 0 | 0.89 | 6.66849429 | 10.06039391 | 7.018510977 | 0.5 |
| Tantalizers | 2007 | 0.86 | 0 | 1 | 1 | 0 | 1.14 | 6.75404897 | 1.903511668 | 1.770931418 | 0.5 |
| Tantalizers | 2008 | 1.01 | 0 | 1 | 1 | 0 | 1.66 | 6.88005864 | 26.39699804 | 2.899494374 | 0.5 |
| Tantalizers | 2009 | 2.75 | 1 | 1 | 1 | 0 | 2.03 | 6.86792099 | 9.127983225 | 1.379620623 | 0.5 |
| Tantalizers | 2010 | 2.22 | 1 | 1 | 1 | 0 | 0.38 | 7.39741894 | 31.12563957 | 1.384295904 | 0.5 |
| Tantalizers | 2011 | 1.89 | 0 | 1 | 1 | 0 | 0.33 | 7.44725892 | 38.30139413 | 1.114306614 | 0.714285714 |
| Tantalizers | 2012 | 1.26 | 0 | 1 | 1 | 0 | 0.45 | 7.51406005 | 20.41227175 | 0.920062608 | 0.5 |
| Tantalizers | 2013 | 1.59 | 0 | 1 | 1 | 0 | 0.31 | 7.54338718 | 7.692996731 | 1.554786655 | 0.285714286 |
| Tantalizers | 2014 | 1.11 | 0 | 1 | 1 | 0 | 0.47 | 7.74412079 | 13.05322317 | 1.484783764 | 0.5 |
| Tantalizers | 2015 | 0.96 | 0 | 1 | 1 | 0 | 0.57 | 6.68439639 | 7.6353278 | 1.012609107 | 0.5 |
| Tantalizers | 2016 | 0.92 | 1 | 1 | 1 | 0 | 0.63 | 6.7982641 | 11.2627842 | 1.549939885 | 0.142857143 |
| Tantalizers | 2017 | 0.85 |  |  |  |  | 0.66 | 6.77418459 | 13.62868516 | 1.844364236 | 0.142857143 |
| Tantalizers | 2018 | 1.03 | 0 | 1 | 1 | 0 | 0.25 | 6.84123029 | 16.28627543 | 3.673322099 | 0.142857143 |
| Union Dicon Salt | 1997 | 0.74 | 0 | 1 | 1 | 0 | 0.21 | 6.87816008 | 13.65354727 | 1.731470984 | 0.142857143 |
| Union Dicon Salt | 1998 | 1.05 | 0 | 1 | 1 | 0 | 0.48 | 6.78912213 | 10.25514698 | 1.329774928 | 0.142857143 |
| Union Dicon Salt | 1999 | 0.96 | 0 | 1 | 1 | 0 | 0.43 | 6.98668375 | -1.2538078 | 1.248919772 | 0.142857143 |
| Union Dicon Salt | 2000 | 0.86 | 0 | 1 | 1 | 0 | 0.37 | 7.00580203 | 15.59718928 | 0.733253204 | 0.142857143 |
| Union Dicon Salt | 2001 | 0.96 | 0 | 1 | 1 | 0 | 0.35 | 7.07532596 | -2.05821301 | 0.720509404 | 0.142857143 |
| Union Dicon Salt | 2002 | 0.89 | 0 | 1 | 1 | 0 | 0.24 | 7.01568414 | 0.310020635 | 0.724903073 | 0.142857143 |
| Union Dicon Salt | 2003 | 0.76 | 1 | 1 | 1 | 0 | 0.21 | 7.62192572 | -2.42488643 | 0.646516343 | 0.142857143 |
| Union Dicon Salt | 2004 | 0.82 | 1 | 1 | 1 | 0 | 0.42 | 7.65597541 | 12.39699294 | 1.700969888 | 0.285714286 |
| Union Dicon Salt | 2005 | 0.91 | 1 | 1 | 1 | 0 | 0.56 | 7.70240676 | 12.50918379 | 1.886737493 | 0.5 |
| Union Dicon Salt | 2006 | 0.72 | 1 | 1 | 1 | 0 | 0.63 | 7.73954235 | 13.38841401 | 2.143346101 | 0.5 |
| Union Dicon Salt | 2007 | 1.12 | 1 | 1 | 1 | 0 | 1 | 7.77061697 | 14.98903146 | 1.644255681 | 0.5 |
| Union Dicon Salt | 2008 | 2.17 | 1 | 1 | 1 | 0 | 1 | 7.83838641 | 14.427787 | 2.125705768 | 0.571428571 |
| Union Dicon Salt | 2009 | 2.55 | 1 | 1 | 1 | 0 | 1 | 7.80893172 | 13.8300654 | 1.96800029 | 0.5 |
| Union Dicon Salt | 2010 | 1.04 | 1 | 1 | 1 | 0 | 1 | 7.85911679 | 6.203040769 | 1.869733621 | 0.571428571 |
| Union Dicon Salt | 2011 | 0.94 | 0 | 1 | 1 | 0 | 0.4 | 7.85104874 | 12.0617979 | 2.439135368 | 0.5 |
| Union Dicon Salt | 2012 | 0.74 | 1 | 1 | 1 | 0 | 0.55 | 7.82858199 | 12.52687631 | 2.350593441 | 0.357142857 |
| Union Dicon Salt | 2013 | 0.91 | 1 | 1 | 1 | 0 | 0.53 | 6.67916788 | 11.03075311 | 1.941770026 | 0.642857143 |
| Union Dicon Salt | 2014 | 0.71 | 1 | 1 | 1 | 0 | 0.51 | 6.86828551 | 22.25464175 | 1.156746036 | 0.285714286 |
| Union Dicon Salt | 2015 | 1.84 | 1 | 1 | 1 | 0 | 0.42 | 6.98636469 | 21.64520338 | 2.38452394 | 0.285714286 |
| Union Dicon Salt | 2016 | 2.31 | 1 | 0 | 1 | 0 | 0.43 | 6.88448513 | 19.50963184 | 1.908463214 | 0.285714286 |
| Union Dicon Salt | 2017 | 2.37 | 1 | 1 | 1 | 1 | 0.42 | 6.97446269 | 13.18359625 | 1.054407478 | 0.285714286 |
| Union Dicon Salt | 2018 | 1.28 | 1 | 1 | 1 | 1 | 0.45 | 7.17749492 | 4.405218406 | 0.967930466 | 0.285714286 |
| Champion Breweries | 1997 | 1.45 |  |  |  |  | 0.44 | 7.14967873 | 4.256369094 | 0.896788971 | 0.285714286 |
| Champion Breweries | 1998 | 1.20 | 1 | 1 | 1 | 0 | 0.68 | 7.18524782 | -8.95953259 | 0.899837681 | 0.285714286 |
| Champion Breweries | 1999 | 0.96 | 1 | 1 | 1 | 0 | 0.7 | 7.27752993 | -3.01716138 | 0.917299222 | 0.285714286 |
| Champion Breweries | 2000 | 1.03 | 1 | 1 | 1 | 0 | 0.72 | 7.14424579 | -55.9353231 | 0.890129335 | 0.285714286 |
| Champion Breweries | 2001 | 1.04 | 1 | 1 | 1 | 0 | 0.78 | 6.7811478 | 10264.71844 | 1.045117582 | 0.285714286 |
| Champion Breweries | 2002 | 1.04 | 1 | 1 | 1 | 1 | 0.84 | 7.18562107 | 5.571528067 | 2.197258846 | 0.285714286 |
| Champion Breweries | 2003 | 1.59 | 1 | 1 | 1 | 1 | 0.84 | 7.09016113 | 4.56217488 | 1.257494091 | 0.285714286 |
| Champion Breweries | 2004 | 0.80 | 1 | 1 | 1 | 1 | 0.84 | 7.15843713 | -40.0314315 | 1.712842725 | 0.285714286 |
| Champion Breweries | 2005 | 3.00 | 1 | 1 | 1 | 1 | 0.37 | 7.11668337 | 2.035102887 | 0.82342462 | 0.285714286 |
| Champion Breweries | 2006 | 1.21 | 1 | 1 | 1 | 0 | 0.38 | 7.19050177 | 3.267477694 | 0.560676423 | 0.285714286 |
| Champion Breweries | 2007 | 0.63 | 1 | 1 | 1 | 0 | 0.26 | 7.21223543 | -0.63008448 | 0.653200221 | 0.285714286 |
| Champion Breweries | 2008 | 0.61 | 1 | 1 | 1 | 0 | 0.31 | 7.30692982 | 7.675738596 | 0.660838893 | 0.285714286 |
| Champion Breweries | 2009 | 0.61 | 1 | 1 | 1 | 1 | 0.22 | 7.41519815 | 1.242836033 | 0.706860382 | 0.5 |
| Champion Breweries | 2010 | 0.58 | 1 | 1 | 1 | 1 | 0.25 | 7.42365935 | 1.681719797 | 0.767878187 | 0.5 |
| Champion Breweries | 2011 | 0.82 | 1 | 1 | 1 | 1 | 0.2 | 6.54508434 | -17.4914991 | 0.817021424 | 0.5 |
| Champion Breweries | 2012 | 0.65 | 0 | 1 | 1 | 0 | 0.25 | 6.51312554 | 45 | 0.884145359 | 0.285714286 |
| Champion Breweries | 2013 | 1.10 | 1 | 0 | 1 | 1 | 0.3 | 6.61706212 | 54.33156119 | 1.087675325 | 0.285714286 |
| Champion Breweries | 2014 | 1.48 | 1 | 1 | 1 | 0 | 0.57 | 6.66607354 | 14.06977555 | 2.654012409 | 0.285714286 |
| Champion Breweries | 2015 | 2.11 | 1 | 1 | 1 | 1 | 0.57 | 6.39532639 | 31.15153788 | 1.944672611 | 0.285714286 |
| Champion Breweries | 2016 | 1.36 | 1 | 1 | 1 | 0 | 0.56 | 6.78333055 | 8.831104651 | 3.201305591 | 0.285714286 |
| Champion Breweries | 2017 | 0.98 | 1 | 1 | 1 | 0 | 0.49 | 6.84970404 | 3.900414746 | 1.259844261 | 0.285714286 |
| Champion Breweries | 2018 | 1.02 | 1 | 1 | 1 | 0 | 0.47 | 6.90633547 | 2.250955505 | 1.059726409 | 0.285714286 |
| Computer Warehouse Group | 1997 | 1.02 | 1 | 1 | 1 | 1 | 0.51 | 6.99459071 | 3.760387605 | 0.966872264 | 0.285714286 |
| Computer Warehouse Group | 1998 | 0.94 | 1 | 1 | 1 | 0 | 0.52 | 7.02170845 | 5.9443465 | 1.012957225 | 0.142857143 |
| Computer Warehouse Group | 1999 | 0.98 | 1 | 1 | 1 | 0 | 0.48 | 8.23977593 | -65.330001 | 1.086319366 | 0.142857143 |
| Computer Warehouse Group | 2000 | 0.96 | 0 | 1 | 1 | 0 | 0.59 | 8.65127026 | 7.667658426 | 0.984922745 | 0.285714286 |
| Computer Warehouse Group | 2001 | 1.16 | 0 | 1 | 1 | 0 | 0.7 | 8.89801613 | 19.51252723 | 1.141115072 | 0.285714286 |
| Computer Warehouse Group | 2002 | 1.32 | 1 | 1 | 1 | 0 | 0.7 | 8.80106808 | 16.70219727 | 1.05606722 | 0.5 |
| Computer Warehouse Group | 2003 | 1.13 | 1 | 1 | 1 | 0 | 0.69 | 8.84871796 | -0.13601681 | 0.928411541 | 0.571428571 |
| Computer Warehouse Group | 2004 | 1.01 | 1 | 1 | 1 | 0 | 0.75 | 8.96107209 | 9.374803418 | 0.985039812 | 0.5 |
| Computer Warehouse Group | 2005 | 1.06 | 1 | 1 | 1 | 0 | 0.68 | 9.03093472 | 2.636205622 | 0.989656883 | 0.5 |
| Computer Warehouse Group | 2006 | 1.04 | 1 | 1 | 1 | 0 | 0.74 | 9.04791163 | 11.82854042 | 0.946128626 | 0.857142857 |
| Computer Warehouse Group | 2007 | 0.99 | 1 | 1 | 1 | 0 | 0.3 | 9.15262831 | 13.30648175 | 0.947425493 | 0.857142857 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Computer Warehouse Group | 2008 | 1.05 | 1 | 1 | 1 | 1 | 0.3 | 9.07896296 | 7.365261311 | 0.937402172 | 0.857142857 |
| Computer Warehouse Group | 2009 | 1.05 | 1 | 1 | 1 | 0 | 0.27 | 8.05378238 | -39.1656988 | 0.937696126 | 0.857142857 |
| Computer Warehouse Group | 2010 | 0.99 | 1 | 1 | 1 | 0 | 0.38 | 8.20104202 | 12.19197302 | 1.245780246 | 0.285714286 |
| Computer Warehouse Group | 2011 | 6.71 | 0 | 1 | 1 | 0 | 0.46 | 8.43121415 | 13.98740922 | 1.454698816 | 0.642857143 |
| Computer Warehouse Group | 2012 | 4.80 | 0 | 1 | 1 | 0 | 0.55 | 8.41462076 | 14.86784687 | 1.775190332 | 0.714285714 |
| Computer Warehouse Group | 2013 | 5.66 | 1 | 1 | 1 | 0 | 0.5 | 8.58494265 | 10.11182903 | 1.215093072 | 0.642857143 |
| Computer Warehouse Group | 2014 | 5.66 | 1 | 1 | 1 | 0 | 0.29 | 8.74368611 | 11.28955224 | 1.223667957 | 0.642857143 |
| Computer Warehouse Group | 2015 | 4.67 | 1 | 1 | 1 | 0 | 0.65 | 8.83047254 | 8.317577973 | 1.013344761 | 0.928571429 |
| Computer Warehouse Group | 2016 | 5.56 | 1 | 1 | 1 | 0 | 0.5 | 8.82309063 | 12.18727877 | 0.976875649 | 0.714285714 |
| Computer Warehouse Group | 2017 | 11.52 | 1 | 1 | 1 | 0 | 0.41 | 8.97522127 | 22.02559562 | 1.337784711 | 0.714285714 |
| Computer Warehouse Group | 2018 | 10.53 | 1 | 1 | 1 | 0 | 0.43 | 8.97200092 | 26.66661122 | 1.440133949 | 0.642857143 |
| Anino International | 1997 | 4.94 | 1 | 1 | 1 | 0 | 0.37 | 6.51473949 | 14.64793319 | 1.114427388 | 0.714285714 |
| Anino International | 1998 | 5.21 | 1 | 1 | 1 | 0 | 0.38 | 6.8685531 | 15.98801304 | 0.821817522 | 0.285714286 |
| Anino International | 1999 | 8.84 | 1 | 1 | 1 | 0 | 0.19 | 7.36168004 | 5.262736075 | 4.676972869 | 0.142857143 |
| Anino International | 2000 | 7.52 | 0 | 1 | 1 | 0 | 0.29 | 7.26639261 | 3.704881365 | 1.385636786 | 0.142857143 |
| Anino International | 2001 | 3.31 | 0 | 1 | 1 | 0 | 0.53 | 7.03109954 | -35.3286838 | 0.560505312 | 0.285714286 |
| Anino International | 2002 | 1.57 | 0 | 1 | 1 | 0 | 0.63 | 6.97563209 | -109.177893 | 0.67792191 | 0.285714286 |
| Anino International | 2003 | 1.25 | 1 | 1 | 1 | 1 | 0.56 | 6.95095231 | 0.112917168 | 0.962298872 | 0.285714286 |
| Anino International | 2004 | 3.34 | 1 | 1 | 1 | 1 | 0.6 | 6.94393358 | -41.5410284 | 1.125737636 | 0.285714286 |
| Anino International | 2005 | 0.66 | 1 | 1 | 1 | 0 | 0.71 | 6.88769532 | -18.4391228 | 1.138269334 | 0.285714286 |
| Anino International | 2006 | 0.79 | 1 | 1 | 1 | 0 | 0.68 | 7.07141688 | -60.8823104 | 1.33400968 | 0.5 |
| Anino International | 2007 | 12.61 | 1 | 1 | 1 | 0 | 0.67 | 8.04830761 | 19.07523843 | 1.114017895 | 0.5 |
| Anino International | 2008 | 0.72 | 1 | 1 | 1 | 0 | 0.57 | 8.10893378 | 4.121965705 | 1.143401082 | 0.285714286 |
| Anino International | 2009 | 4.16 | 1 | 1 | 1 | 1 | 0.47 | 8.3392641 | 6.935945942 | 1.594530838 | 0.285714286 |
| Anino International | 2010 | 6.32 | 1 | 1 | 1 | 0 | 0.4 | 8.26363331 | 20.94038696 | 1.241553269 | 0.5 |
| Anino International | 2011 | 6.66 | 1 | 1 | 1 | 0 | 0.38 | 8.36783848 | -40.7352743 | 0.97968939 | 0.571428571 |
| Anino International | 2012 | 3.74 | 1 | 1 | 1 | 1 | 0.37 | 8.66557243 | 19.16584218 | 0.99232014 | 0.571428571 |
| Anino International | 2013 | 3.27 | 0 | 0 | 1 | 0 | 0.41 | 8.72720243 | 16.86953483 | 0.95677202 | 0.571428571 |
| Anino International | 2014 | 1.55 | 0 | 1 | 1 | 0 | 0.34 | 8.80911461 | 14.90819831 | 0.939074362 | 0.714285714 |
| Anino International | 2015 | 2.38 | 0 | 1 | 1 | 0 | 0.4 | 8.91621143 | 13.03992096 | 0.988644818 | 0.357142857 |
| Anino International | 2016 | 0.68 | 0 | 1 | 1 | 0 | 0.44 | 8.90279208 | 10.6296868 | 0.958461631 | 0.5 |
| Anino International | 2017 | 4.31 | 0 | 1 | 1 | 0 | 0.36 | 6.46891096 | 10.77015282 | 0.956807806 | 0.785714286 |
| Anino International | 2018 | 1.03 | 0 | 1 | 1 | 0 | 0.35 | 6.65609465 | -19.0608911 | 0.733012007 | 0.285714286 |
| Transcorp Hotels | 1997 | 1.52 | 0 | 1 | 1 | 0 | 0.39 | 6.83148501 | 3.74250752 | 0.819947913 | 0.285714286 |
| Transcorp Hotels | 1998 | 0.63 | 1 | 1 | 1 | 1 | 0.31 | 6.90949281 | -14.6534963 | 1.049845592 | 0.285714286 |
| Transcorp Hotels | 1999 | 1.38 | 0 | 1 | 1 | 0 | 0.32 | 6.90482716 | 19.18327788 | 0.970202584 | 0.285714286 |
| Transcorp Hotels | 2000 | 0.94 | 0 | 1 | 1 | 0 | 0.34 | 6.93341768 | 1.256482746 | 0.966745559 | 0.285714286 |
| Transcorp Hotels | 2001 | 2.57 | 0 | 1 | 1 | 0 | 0.37 | 6.87262011 | 0.228853581 | 0.987843297 | 0.285714286 |
| Transcorp Hotels | 2002 | 2.04 | 0 | 1 | 1 | 0 | 0.39 | 6.9692134 | 0.113711059 | 0.927189791 | 0.285714286 |
| Transcorp Hotels | 2003 | 2.05 | 0 | 1 | 1 | 0 | 0.39 | 7.01103255 | -2.20931266 | 0.934354238 | 0.285714286 |
| Transcorp Hotels | 2004 | 2.54 | 0 | 1 | 1 | 0 | 0.37 | 7.02677788 | -19.6766359 | 0.964102792 | 0.285714286 |
| Transcorp Hotels | 2005 | 2.05 | 0 | 1 | 1 | 0 | 0.45 | 5.67088198 | -5.50974416 | 0.968605411 | 0.285714286 |
| Transcorp Hotels | 2006 | 2.39 | 1 | 1 | 1 | 1 | 0.49 | 5.63581939 | -1.33911017 | 1.220100165 | 0.714285714 |
| Transcorp Hotels | 2007 | 3.00 | 0 | 1 | 1 | 0 | 0.41 | 5.78391644 | 101.3956022 | 1.69452986 | 0.714285714 |
| Transcorp Hotels | 2008 | 4.03 | 1 | 1 | 1 | 0 | 0.35 | 5.76737704 | 0.949997182 | 2.459468305 | 0.714285714 |
| Transcorp Hotels | 2009 | 3.83 | 1 | 1 | 1 | 0 | 0.35 | 5.8038796 | 0.511322898 | 1.436095801 | 0.714285714 |
| Transcorp Hotels | 2010 | 0.10 | 1 | 1 | 1 | 0 | 0.34 | 5.80726097 | -2.97877615 | 1.187498331 | 0.714285714 |
| Transcorp Hotels | 2011 | 3.77 | 1 | 1 | 1 | 0 | 0.54 | 5.82768712 | -20.0378364 | 1.233020831 | 0.714285714 |
| Transcorp Hotels | 2012 | 1.76 | 1 | 1 | 1 | 0 | 0.51 | 5.80558649 | -21.7610004 | 1.261665566 | 0.714285714 |
| Transcorp Hotels | 2013 | 3.83 | 1 | 1 | 1 | 0 | 0.5 | 7.49103152 | 17.48287237 | 1.516032832 | 0.714285714 |
| Transcorp Hotels | 2014 | 1.49 |  |  |  |  | 0.44 | 7.55103827 | 11.69072944 | 3.960430391 | 0.5 |
| Transcorp Hotels | 2015 | 13.21 | 0 | 1 | 1 | 0 | 0.6 | 7.61521026 | 19.08289333 | 1.263836218 | 0.5 |
| Transcorp Hotels | 2016 | 6.21 | 1 | 1 | 1 | 0 | 0.57 | 7.93773189 | 10.02905491 | 2.414313416 | 0.5 |
| Transcorp Hotels | 2017 | 3.38 | 0 | 1 | 1 | 0 | 0.61 | 7.88901592 | 2.316808129 | 1.602541417 | 0.285714286 |
| Transcorp Hotels | 2018 | 7.07 | 1 | 1 | 1 | 0 | 0.59 | 7.81873818 | -8.93768111 | 0.999084255 | 0.285714286 |
| RT Briscoe | 1997 | 10.79 | 0 | 1 | 1 | 0 | 0.47 | 7.73879235 | -37.3583777 | 1.432900533 | 0.285714286 |
| RT Briscoe | 1998 | 9.46 | 1 | 1 | 1 | 0 | 0.59 | 7.69333098 | -65.3436485 | 1.534052433 | 0.285714286 |
| RT Briscoe | 1999 | 16.47 | 1 | 1 | 1 | 0 | 0.58 | 7.4198921 | 520.5249049 | 1.375771097 | 0.285714286 |
| RT Briscoe | 2000 | 2.61 | 0 | 0 | 0 | 0 | 0.5 | 7.55019111 | 43.64898329 | 3.233264903 | 0.285714286 |
| RT Briscoe | 2001 | 4.01 | 1 | 1 | 1 | 0 | 0.51 | 7.62087142 | 51.35571477 | 2.427829698 | 0.285714286 |
| RT Briscoe | 2002 | 1.25 | 1 | 1 | 1 | 0 | 0.48 | 7.69636341 | 60.43708447 | 2.687177581 | 0.285714286 |
| RT Briscoe | 2003 | 17.73 | 1 | 1 | 1 | 0 | 0.42 | 7.73720346 | 56.82590237 | 1.891301833 | 0.285714286 |
| RT Briscoe | 2004 | 15.32 | 1 | 1 | 1 | 0 | 0.37 | 7.76878464 | 44.48239862 | 2.265496512 | 0.285714286 |
| RT Briscoe | 2005 | 10.99 | 1 | 1 | 1 | 0 | 0.18 | 7.88119666 | 38.03231828 | 1.985663697 | 0.285714286 |
| RT Briscoe | 2006 | 11.31 | 1 | 1 | 1 | 0 | 0.26 | 7.89984012 | 41.32854842 | 1.436155051 | 0.285714286 |
| RT Briscoe | 2007 | 7.07 | 1 | 1 | 1 | 0 | 0.49 | 7.98005989 | 40.28530786 | 1.508944527 | 0.285714286 |
| RT Briscoe | 2008 | 4.12 | 1 | 1 | 1 | 0 | 0.52 | 7.9224844 | 31.75738336 | 1.466459865 | 0.285714286 |
| RT Briscoe | 2009 | 2.81 | 1 | 1 | 1 | 1 | 0.54 | 6.88416782 | 24.91645827 | 1.418693384 | 0.285714286 |
| RT Briscoe | 2010 | 8.04 | 1 | 1 | 1 | 0 | 0.68 | 6.89541083 | -43.5666949 | 1.447552257 | 0.285714286 |
| RT Briscoe | 2011 | 9.70 | 1 | 1 | 1 | 0 | 0.8 | 6.9643263 | 153.8311345 | 1.40661085 | 0.285714286 |
| RT Briscoe | 2012 | 4.51 | 0 | 1 | 1 | 1 | 0.55 | 7.12159234 | -560.947961 | 1.673750378 | 0.285714286 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RT Briscoe | 2013 | 2.30 | 0 | 1 | 1 | 1 | 0.44 | 7.05665719 | 121.7601918 | 1.49540141 | 0.285714286 |
| RT Briscoe | 2014 | 3.41 | 0 | 1 | 1 | 1 | 0.46 | 7.04773906 | -61.2250379 | 1.597830073 | 0.285714286 |
| RT Briscoe | 2015 | 4.56 | 0 | 1 | 1 | 0 | 0.4 | 7.04485948 | -30.0578826 | 1.765869159 | 0.285714286 |
| RT Briscoe | 2016 | 3.36 | 1 | 1 | 1 | 1 | 0.4 | 7.02521933 | 6.922608503 | 1.603977576 | 0.5 |
| RT Briscoe | 2017 | 0.96 | 1 | 1 | 1 | 0 | 0.41 | 7.01645773 | -50.0515428 | 1.703439266 | 0.285714286 |
| RT Briscoe | 2018 | 1.46 | 1 | 1 | 1 | 0 | 0.43 | 7.9606659 | 183.6896487 | 1.897676188 | 0.285714286 |
| Port & Paints & Products Nig. | 1997 | 0.76 | 1 | 1 | 1 | 0 | 0.42 | 7.9986287 | 6.706934394 | 1.083139172 | 0.285714286 |
| Port & Paints & Products Nig. | 1998 | 1.06 | 1 | 1 | 1 | 0 | 2.24 | 8.00492247 | -25.1912866 | 1.576714885 | 0.5 |
| Port & Paints & Products Nig. | 1999 | 1.41 | 1 | 1 | 1 | 0 | 1.3 | 7.54098836 | -20.2128038 | 1.30025776 | 0.5 |
| Port & Paints & Products Nig. | 2000 | 0.36 | 1 | 1 | 1 | 0 | 1.5 | 7.63312188 | 5.345230071 | 0.692646424 | 0.5 |
| Port & Paints & Products Nig. | 2001 | 1.36 | 1 | 1 | 1 | 0 | 1.5 | 7.78867794 | 20.23274968 | 0.902678685 | 0.5 |
| Port & Paints & Products Nig. | 2002 | 0.01 | 1 | 1 | 1 | 0 | 0.39 | 7.87854593 | 14.3110443 | 1.077747705 | 0.285714286 |
| Port & Paints & Products Nig. | 2003 | 11.54 | 1 | 1 | 1 | 0 | 0.31 | 8.1745378 | 6.100521861 | 1.177909715 | 0.285714286 |
| Port & Paints & Products Nig. | 2004 | 12.23 | 1 | 1 | 1 | 0 | 0.23 | 8.23237435 | 8.027437008 | 0.867532182 | 0.285714286 |
| Port & Paints & Products Nig. | 2005 | 16.36 | 1 | 0 | 1 | 0 | 0.19 | 8.30724769 | 3.681427759 | 1.372347295 | 0.285714286 |
| Port & Paints & Products Nig. | 2006 | 14.85 | 1 | 0 | 1 | 0 | 0.39 | 5.27275568 | 2.321640634 | 1.045825515 | 0.357142857 |
| Port & Paints & Products Nig. | 2007 | 11.50 | 1 | 0 | 1 | 0 | 0.48 | 5.3605153 | 27.68440936 | 1.078609454 | 0.285714286 |
| Port & Paints & Products Nig. | 2008 | 9.10 | 1 | 0 | 1 | 0 | 0.48 | 5.43142146 | 35.27169468 | 0.818908019 | 0.285714286 |
| Port & Paints & Products Nig. | 2009 | 6.60 | 1 | 1 | 1 | 0 | 0.56 | 5.70840681 | 30.79688676 | 4.357037798 | 0.285714286 |
| Port & Paints & Products Nig. | 2010 | 3.77 | 1 | 0 | 1 | 1 | 0.51 | 5.70980732 | 14.59817941 | 2.086476727 | 0.285714286 |
| Port & Paints & Products Nig. | 2011 | 2.10 | 1 | 1 | 1 | 0 | 0.61 | 5.76307817 | 12.04400393 | 1.840211564 | 0.285714286 |
| Port & Paints & Products Nig. | 2012 | 4.91 | 1 | 1 | 1 | 0 | 0.7 | 5.78180347 | 10.64288699 | 1.890232308 | 0.285714286 |
| Port & Paints & Products Nig. | 2013 | 7.27 | 1 | 0 | 1 | 0 | 0.88 | 5.82277723 | -10.9345441 | 1.568481672 | 0.285714286 |
| Port & Paints & Products Nig. | 2014 | 8.47 | 1 | 0 | 1 | 0 | 0.7 | 5.79758674 | 20.29619145 | 1.007004148 | 0.285714286 |
| Port & Paints & Products Nig. | 2015 | 16.98 | 1 | 1 | 1 | 0 | 0.9 | 5.81708057 | 16.79777811 | 0.997158975 | 0.285714286 |
| Port & Paints & Products Nig. | 2016 | 8.52 | 1 | 1 | 1 | 1 | 0.79 | 6.17145614 | 11.90698109 | 0.691550185 | 0.357142857 |
| Port & Paints & Products Nig. | 2017 | 6.61 | 1 | 1 | 1 | 1 | 0.71 | 6.18621475 | 2.867428228 | 0.662710542 | 0.285714286 |
| Port & Paints & Products Nig. | 2018 | 7.11 | 1 | 1 | 1 | 1 | 0.74 | 6.17029487 | 7.128544015 | 1.666296345 | 0.285714286 |
| E-Tranzact International | 1997 | 4.09 | 0 | 1 | 1 | 0 | 0.94 | 6.22947578 | 13.00059363 | 2.34233052 | 0.5 |
| E-Tranzact International | 1998 | 8.48 | 0 | 1 | 1 | 0 | 0.9 | 6.15459559 | 16.60593248 | 2.441026865 | 0.5 |
| E-Tranzact International | 1999 | 5.46 | 0 | 1 | 1 | 0 | 0.87 | 6.15953561 | -7.42067106 | 1.866343991 | 0.5 |
| E-Tranzact International | 2000 | 7.21 | 0 | 1 | 1 | 0 | 0.57 | 6.23380883 | -7.7389918 | 1.67861426 | 0.5 |
| E-Tranzact International | 2001 | 8.58 | 0 | 1 | 1 | 0 | 0.52 | 6.22254324 | -0.97063495 | 1.338431525 | 0.5 |
| E-Tranzact International | 2002 | 10.46 | 0 | 1 | 1 | 0 | 0.61 | 6.24316956 | 1.74253171 | 1.679801362 | 0.5 |
| E-Tranzact International | 2003 | 9.11 | 0 | 1 | 1 | 0 | 0.58 | 6.25651233 | 1.412563642 | 1.533769379 | 0.5 |
| E-Tranzact International | 2004 | 9.85 | 1 | 1 | 1 | 0 | 0.62 | 7.44222566 | 3.616515709 | 1.463658319 | 0.571428571 |
| E-Tranzact International | 2005 | 5.92 | 1 | 1 | 1 | 0 | 0.55 | 7.89828722 | 16.20044607 | 1.418237839 | 0.285714286 |
| E-Tranzact International | 2006 | 5.40 | 0 | 1 | 1 | 0 | 0.54 | 7.9786667 | 13.18336498 | 0.918054571 | 0.5 |
| E-Tranzact International | 2007 | 8.88 | 0 | 1 | 1 | 0 | 0.55 | 7.97354918 | 14.21546627 | 1.546779571 | 0.5 |
| E-Tranzact International | 2008 | 7.33 | 0 | 1 | 1 | 0 | 0.84 | 8.01018304 | 13.73797764 | 1.285361986 | 0.5 |
| E-Tranzact International | 2009 | 11.45 | 0 | 1 | 1 | 0 | 0.87 | 8.08490857 | 11.9567462 | 1.671491466 | 0.5 |
| E-Tranzact International | 2010 | 8.22 | 1 | 1 | 1 | 0 | 0.9 | 8.08981893 | 5.971575303 | 3.341932121 | 0.5 |
| E-Tranzact International | 2011 | 10.76 | 1 | 1 | 1 | 0 | 0.77 | 8.08997034 | 11.72079775 | 1.257964074 | 0.5 |
| E-Tranzact International | 2012 | 4.90 | 0 | 1 | 1 | 0 | 0.75 | 8.11514655 | 13.8851418 | 1.98399763 | 0.5 |
| E-Tranzact International | 2013 | 4.12 | 0 | 1 | 1 | 0 | 0.81 | 8.10942778 | 14.40774363 | 1.289036746 | 0.428571429 |
| E-Tranzact International | 2014 | 10.91 | 1 | 1 | 1 | 0 | 0.79 | 6.86835373 | 6.942018563 | 0.963222647 | 0.785714286 |
| E-Tranzact International | 2015 | 8.60 | 1 | 1 | 1 | 0 | 0.8 | 6.88732445 | 5.729685909 | 1.452608012 | 0.5 |
| E-Tranzact International | 2016 | 13.95 | 1 | 1 | 1 | 0 | 0.1 | 6.91143195 | 8.91792767 | 2.191473036 | 0.5 |
| E-Tranzact International | 2017 | 5.25 | 0 | 1 | 1 | 0 | 0.14 | 6.8841495 | 5.13888941 | 1.313602889 | 0.285714286 |
| E-Tranzact International | 2018 | 4.06 | 0 | 1 | 1 | 0 | 0.33 | 6.83855676 | -5.23681305 | 0.750889653 | 0.285714286 |
| Paints & Coatings Manufactures | 1997 | 1.04 | 1 | 1 | 1 | 1 | 0.32 | 6.78311692 | -36.5464178 | 0.795785207 | 0.285714286 |
| Paints & Coatings Manufactures | 1998 | 2.13 | 1 | 1 | 1 | 0 | 0.32 | 6.77989217 | -4.91658672 | 0.716847446 | 0.285714286 |
| Paints & Coatings Manufactures | 1999 | 17.40 | 1 | 1 | 1 | 0 | 0.29 | 6.70963624 | -12.9645246 | 0.752119321 | 0.285714286 |
| Paints & Coatings Manufactures | 2000 | 34.17 | 1 | 1 | 1 | 0 | 0.22 | 6.64679853 | -73.5825223 | 0.9374276 | 0.285714286 |
| Paints & Coatings Manufactures | 2001 | 11.84 | 1 | 1 | 1 | 0 | 0.22 | 7.2700374 | -73.160658 | 1.080963386 | 0.285714286 |
| Paints & Coatings Manufactures | 2002 | 18.33 | 1 | 1 | 1 | 0 | 0.55 | 7.30862698 | -34.7645338 | 3.997333995 | 0.5 |
| Paints & Coatings Manufactures | 2003 | 8.40 | 1 | 1 | 1 | 0 | 0.47 | 7.37093212 | 25.77167966 | 4.091042092 | 0.5 |
| Paints & Coatings Manufactures | 2004 | 9.45 | 1 | 1 | 1 | 0 | 0.46 | 7.37436336 | 38.86121984 | 4.37573935 | 0.5 |
| Paints & Coatings Manufactures | 2005 | 12.16 | 1 | 1 | 1 | 0 | 0.44 | 7.41383601 | 49.90246281 | 2.823889898 | 0.5 |
| Paints & Coatings Manufactures | 2006 | 7.00 | 0 | 1 | 1 | 0 | 0.6 | 7.50852873 | 50.14860423 | 4.367084045 | 0.5 |
| Paints & Coatings Manufactures | 2007 | 6.26 | 0 | 0 | 0 | 0 | 0.62 | 7.56226459 | 41.28848397 | 3.893135144 | 0.5 |
| Paints & Coatings Manufactures | 2008 | 7.12 | 1 | 0 | 1 | 0 | 0.54 | 7.64101889 | 39.51707831 | 4.093241099 | 0.5 |
| Paints & Coatings Manufactures | 2009 | 3.49 | 1 | 0 | 1 | 0 | 0.56 | 7.6602606 | 49.8657582 | 5.784020911 | 0.642857143 |
| Paints & Coatings Manufactures | 2010 | 4.27 | 1 | 0 | 1 | 0 | 0.57 | 7.7004656 | 32.25571508 | 4.732578994 | 0.857142857 |
| Paints & Coatings Manufactures | 2011 | 4.74 | 1 | 1 | 1 | 0 | 0.45 | 8.94651957 | 14.89851689 | 3.928186674 | 0.857142857 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Paints & Coatings Manufactures | 2012 | 6.14 | 1 | 1 | 1 | 0 | 0.29 | 9.00986035 | 23.79725971 | 1.083347793 | 0.785714286 |
| Paints & Coatings Manufactures | 2013 | 1.70 | 1 | 0 | 1 | 1 | 0.47 | 8.2711 | 12.78388257 | 1.376471221 | 0.785714286 |
| Paints & Coatings Manufactures | 2014 | 0.59 | 1 | 1 | 1 | 1 | 0.42 | 9.13416053 | 21.1025535 | 1.154731839 | 0.714285714 |
| Paints & Coatings Manufactures | 2015 | 0.44 | 1 | 1 | 1 | 1 | 0.31 | 9.15784042 | 1.271215925 | 1.05900262 | 0.571428571 |
| Paints & Coatings Manufactures | 2016 | 17.18 | 1 | 1 | 1 | 1 | 0.38 | 9.24784934 | 0.333285031 | 1.022711081 | 0.714285714 |
| Paints & Coatings Manufactures | 2017 | 1.13 | 1 | 1 | 1 | 1 | 0.48 | 9.31815854 | -5.74069167 | 1.005797631 | 0.785714286 |
| Paints & Coatings Manufactures | 2018 | 2.71 | 1 | 1 | 1 | 1 | 0.47 | 9.42198147 | 26.74588371 | 0.970612871 | 0.785714286 |
| Omatek Ventures | 1997 | 33.12 | 1 | 1 | 1 | 1 | 0.45 | 9.44131376 | 19.82717541 | 1.00108783 | 0.785714286 |
| Omatek Ventures | 1998 | 15.77 | 1 | 1 | 1 | 1 | 0.38 | 9.43974658 | 18.05045854 | 0.985077025 | 0.928571429 |
| Omatek Ventures | 1999 | 37.25 | 1 | 1 | 1 | 0 | 0.35 | 8.11737628 | 17.93452608 | 0.925958817 | 0.928571429 |
| Omatek Ventures | 2000 | 34.18 | 0 | 0 | 1 | 0 | 0.4 | 8.30799637 | 4.454301941 | 1.041912953 | 0.142857143 |
| Omatek Ventures | 2001 | 38.79 | 0 | 0 | 1 | 0 | 0.42 | 8.53969596 | 2.249839161 | 1.278036401 | 0.142857143 |
| Omatek Ventures | 2002 | 46.68 | 0 | 0 | 1 | 0 | 0.48 | 8.39928766 | -66.8762235 | 1.189981625 | 0.571428571 |
| Omatek Ventures | 2003 | 53.96 | 0 | 0 | 1 | 0 | 0.53 | 8.41696157 | -233.114371 | 1.053748831 | 0.571428571 |
| Omatek Ventures | 2004 | 51.02 | 0 | 0 | 1 | 0 | 0.34 | 8.41637911 | 28.44471331 | 0.972087666 | 0.571428571 |
| Omatek Ventures | 2005 | 32.62 | 0 | 0 | 1 | 0 | 0.46 | 8.53688972 | 6.14731981 | 0.942508152 | 0.5 |
| Omatek Ventures | 2006 | 32.91 | 0 | 0 | 1 | 0 | 0.44 | 8.60598267 | 12.00998716 | 0.90129586 | 0.5 |
| Omatek Ventures | 2007 | 3.21 | 0 | 0 | 1 | 1 | 0.44 | 8.61627078 | -80.0433387 | 0.987046333 | 0.5 |
| Omatek Ventures | 2008 | 5.81 | 0 | 1 | 1 | 0 | 0.45 | 8.64671832 | 14.02034604 | 0.86143694 | 0.571428571 |
| Omatek Ventures | 2009 | 6.72 | 0 | 1 | 1 | 0 | 0.43 | 5.81394908 | 5.678696498 | 1.010834743 | 0.571428571 |
| Omatek Ventures | 2010 | 4.83 | 1 | 1 | 1 | 0 | 0.63 | 5.73643714 | 20.68690105 | 2.750622637 | 0.285714286 |
| Omatek Ventures | 2011 | 0.86 | 0 | 1 | 1 | 0 | 0.52 | 6.15044081 | 22.24130572 | 2.221698357 | 0.5 |
| Omatek Ventures | 2012 | 3.73 | 0 | 1 | 1 | 0 | 0.78 | 6.24278335 | 16.96430331 | 1.893451664 | 0.5 |
| Omatek Ventures | 2013 | 0.96 | 0 | 1 | 0 | 0 | 0.75 | 6.30582475 | 21.93441151 | 1.264188589 | 0.5 |
| Omatek Ventures | 2014 | 3.33 | 1 | 1 | 1 | 0 | 0.75 | 6.38152643 | 22.01615603 | 1.589802461 | 0.5 |
| Omatek Ventures | 2015 | 4.06 | 1 | 1 | 1 | 1 | 0.74 | 6.42851334 | 11.91969215 | 1.114598889 | 0.5 |
| Omatek Ventures | 2016 | 2.91 | 0 | 1 | 1 | 0 | 0.74 | 6.44536115 | 12.29494637 | 0.964985272 | 0.5 |
| Omatek Ventures | 2017 | 3.30 | 0 | 1 | 1 | 0 | 0.71 | 6.47325421 | 12.03818203 | 0.919567543 | 0.714285714 |
| Omatek Ventures | 2018 | 5.79 | 0 | 1 | 1 | 0 | 0.79 | 6.45416973 | 10.43257792 | 0.846567337 | 0.785714286 |
| Nigerian Aviation Handling Co. | 1997 | 6.55 | 0 | 1 | 1 | 0 | 0.82 | 7.60202617 | 6.004015472 | 1.027928119 | 0.785714286 |
| Nigerian Aviation Handling Co. | 1998 | 6.69 | 1 | 1 | 1 | 0 | 0.5 | 7.69077782 | 4.582082308 | 0.736550589 | 0.285714286 |
| Nigerian Aviation Handling Co. | 1999 | 6.76 | 1 | 1 | 1 | 0 | 0.6 | 7.80625712 | 5.045360607 | 1.051321719 | 0.285714286 |
| Nigerian Aviation Handling Co. | 2000 | 6.71 | 1 | 1 | 1 | 0 | 0.81 | 7.79437509 | 11.91858667 | 0.955735139 | 0.571428571 |
| Nigerian Aviation Handling Co. | 2001 | 3.03 | 1 | 1 | 1 | 0 | 0.61 | 7.84218042 | 7.996039808 | 0.857689089 | 0.571428571 |
| Nigerian Aviation Handling Co. | 2002 | 7.22 | 0 | 1 | 1 | 0 | 0.78 | 7.83895223 | 7.621438695 | 0.962210752 | 0.571428571 |
| Nigerian Aviation Handling Co. | 2003 | 7.75 | 1 | 1 | 1 | 0 | 0.66 | 7.85344644 | 5.574101536 | 0.892750359 | 0.785714286 |
| Nigerian Aviation Handling Co. | 2004 | 6.01 | 1 | 1 | 1 | 0 | 0.66 | 7.81658405 | 6.977772841 | 0.764233729 | 0.714285714 |
| Nigerian Aviation Handling Co. | 2005 | 4.70 | 1 | 1 | 1 | 0 | 0.74 | 7.83306816 | 9.420942455 | 0.817308502 | 0.571428571 |
| Nigerian Aviation Handling Co. | 2006 | 4.72 | 1 | 1 | 1 | 0 | 0.05 | 7.85709458 | 9.955061423 | 0.911338354 | 0.5 |
| Nigerian Aviation Handling Co. | 2007 | 3.80 | 1 | 1 | 1 | 0 | 0.06 | 6.13785744 | 1.070377809 | 0.717738664 | 0.785714286 |
| Nigerian Aviation Handling Co. | 2008 | 2.57 | 1 | 1 | 1 | 0 | 0.14 | 6.40145207 | 7.65000997 | 1.120180607 | 0.285714286 |
| Nigerian Aviation Handling Co. | 2009 | 4.19 |  |  |  |  | 0.28 | 6.42844809 | 2.984682101 | 2.168946423 | 0.285714286 |
| Nigerian Aviation Handling Co. | 2010 | 6.08 | 1 | 1 | 1 | 0 | 0.36 | 6.4356681 | 6.898059244 | 2.553897136 | 0.285714286 |
| Nigerian Aviation Handling Co. | 2011 | 6.51 | 0 | 1 | 1 | 0 | 0.4 | 6.41412933 | 5.240948485 | 1.043490278 | 0.714285714 |
| Nigerian Aviation Handling Co. | 2012 | 7.78 | 0 | 1 | 1 | 0 | 0.49 | 6.45929687 | 5.964448889 | 0.935439397 | 0.714285714 |
| Nigerian Aviation Handling Co. | 2013 | 8.09 | 0 | 1 | 1 | 0 | 0.47 | 6.4245455 | 20.13604795 | 0.744037535 | 0.142857143 |
| Nigerian Aviation Handling Co. | 2014 | 0.03 | 0 | 1 | 1 | 1 | 0.34 | 6.4281685 | -65.6321876 | 0.909554618 | 0.142857143 |
| Nigerian Aviation Handling Co. | 2015 | 15.08 | 0 | 1 | 1 | 1 | 0.45 | 6.38284771 | -9.641433 | 0.705449853 | 0.142857143 |
| Nigerian Aviation Handling Co. | 2016 | 9.99 | 1 | 1 | 1 | 1 | 0.52 | 6.53435044 | 25.94097047 | 1.839503126 | 0.357142857 |
| Nigerian Aviation Handling Co. | 2017 | 13.01 | 1 | 1 | 1 | 0 | 0.57 | 6.6604807 | 31.34401836 | 2.30862236 | 0.5 |
| Nigerian Aviation Handling Co. | 2018 | 9.01 | 0 | 1 | 1 | 0 | 0.63 | 6.73212868 | 36.84678762 | 2.366694173 | 0.285714286 |
| GlaxoSmithKline Nigeria | 1997 | 8.39 | 0 | 1 | 1 | 0 | 0.62 | 6.77456017 | 23.72602664 | 1.284151163 | 0.5 |
| GlaxoSmithKline Nigeria | 1998 | 14.10 | 0 | 1 | 1 | 0 | 0.6 | 6.96814524 | 20.83141733 | 1.445419044 | 0.285714286 |
| GlaxoSmithKline Nigeria | 1999 | 11.87 | 0 | 1 | 1 | 0 | 0.56 | 7.01801945 | 18.4874267 | 1.198145741 | 0.285714286 |
| GlaxoSmithKline Nigeria | 2000 | 7.58 | 0 | 1 | 1 | 0 | 0.4 | 6.9983046 | 16.28268966 | 0.962659401 | 0.5 |
| GlaxoSmithKline Nigeria | 2001 | 10.07 | 0 | 1 | 1 | 0 | 0.4 | 7.07849122 | 13.193238 | 1.026939963 | 0.5 |
| GlaxoSmithKline Nigeria | 2002 | 6.01 | 1 | 1 | 1 | 0 | 0.49 | 7.16120594 | 14.38049591 | 1.03872523 | 0.5 |
| GlaxoSmithKline Nigeria | 2003 | 2.05 | 1 | 1 | 1 | 1 | 0.46 | 6.42185505 | 5.373606433 | 1.043679607 | 0.642857143 |
| GlaxoSmithKline Nigeria | 2004 | 1.26 | 0 | 1 | 1 | 0 | 0.45 | 7.06517182 | 29.66378226 | 1.590917288 | 0.285714286 |
| GlaxoSmithKline Nigeria | 2005 | 0.22 | 1 | 1 | 1 | 0 | 0.42 | 7.11185919 | 7.535257792 | 0.796925523 | 0.5 |
| GlaxoSmithKline Nigeria | 2006 | 1.95 | 1 | 1 | 1 | 0 | 0.47 | 7.09263136 | 2.095359864 | 3.000415551 | 0.5 |
| GlaxoSmithKline Nigeria | 2007 | 1.88 | 1 | 1 | 1 | 0 | 0.48 | 7.05947117 | -4.81855955 | 1.2069719 | 0.5 |
| GlaxoSmithKline Nigeria | 2008 | 1.88 | 1 | 1 | 1 | 0 | 0.63 | 7.07717245 | -7.85520293 | 0.634539175 | 0.5 |
| GlaxoSmithKline Nigeria | 2009 | 1.32 | 1 | 1 | 1 | 0 | 0.69 | 7.10307661 | 4.751857548 | 0.613325938 | 0.5 |
| GlaxoSmithKline Nigeria | 2010 | 0.32 | 0 | 0 | 1 | 0 | 0.65 | 7.34838365 | 5.024374049 | 0.614307332 | 0.285714286 |
| GlaxoSmithKline Nigeria | 2011 | 0.17 | 1 | 1 | 1 | 0 | 0.7 | 7.34358328 | -1.46779931 | 0.577590934 | 0.714285714 |
| GlaxoSmithKline Nigeria | 2012 | 0.44 | 1 | 1 | 1 | 0 | 0.72 | 7.37464956 | 1.667772135 | 0.823385669 | 0.428571429 |
| GlaxoSmithKline Nigeria | 2013 | 0.05 | 1 | 1 | 1 | 0 | 0.75 | 8.07957579 | 8.671034356 | 0.650936268 | 0.642857143 |
| GlaxoSmithKline Nigeria | 2014 | 10.57 | 0 | 1 | 1 | 0 | 0.72 | 8.14581407 | -32.1419702 | 1.100553053 | 0.5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| GlaxoSmithKline Nigeria | 2015 | 0.36 | 0 | 1 | 1 | 0 | 0.79 | 8.19369503 | 10.14227026 | 1.477892248 | 0.5 |
| GlaxoSmithKline Nigeria | 2016 | 9.34 | 0 | 1 | 1 | 0 | 0.63 | 8.29396818 | 230.2305532 | 2.106013062 | 0.5 |
| GlaxoSmithKline Nigeria | 2017 | 1.67 | 0 | 1 | 1 | 0 | 0.87 | 8.30366055 | 16.42807881 | 1.355290995 | 0.5 |
| GlaxoSmithKline Nigeria | 2018 | 4.52 | 0 | 1 | 1 | 0 | 0.82 | 8.332214 | 110.6938414 | 0.980971679 | 0.5 |
| Honeywell Flour Mill | 1997 | 1.93 | 1 | 1 | 1 | 1 | 0.6 | 8.3881479 | -67.4670967 | 1.022489759 | 0.357142857 |
| Honeywell Flour Mill | 1998 | 4.90 | 0 | 1 | 1 | 0 | 0.68 | 8.46161455 | -394.318224 | 1.019320483 | 0.714285714 |
| Honeywell Flour Mill | 1999 | 0.00 | 0 | 1 | 1 | 0 | 0.89 | 8.58270218 | 3.856806803 | 0.936971051 | 0.785714286 |
| Honeywell Flour Mill | 2000 | 0.23 | 0 | 1 | 1 | 0 | 0.69 | 8.59850962 | 5.420420904 | 0.983901852 | 0.714285714 |
| Honeywell Flour Mill | 2001 | 4.24 | 0 | 1 | 1 | 0 | 0.62 | 8.79192996 | 5.052252176 | 0.957787528 | 0.714285714 |
| Honeywell Flour Mill | 2002 | 14.55 | 0 | 1 | 1 | 0 | 0.48 | 8.98803344 | 11.54504879 | 1.155107563 | 0.785714286 |
| Honeywell Flour Mill | 2003 | 7.79 | 0 | 1 | 1 | 0 | 0.48 | 9.25212455 | 16.12628094 | 1.319270436 | 0.285714286 |
| Honeywell Flour Mill | 2004 | 8.23 | 0 | 1 | 1 | 0 | 0.55 | 9.22003038 | 15.000102 | 1.129347137 | 0.571428571 |
| Honeywell Flour Mill | 2005 | 2.85 |  |  |  |  | 0.63 | 9.18510736 | 6.099297499 | 1.010836658 | 0.714285714 |
| Honeywell Flour Mill | 2006 | 3.85 | 0 | 1 | 1 | 0 | 0.73 | 9.2861031 | 10.35704597 | 1.059329035 | 0.5 |
| Honeywell Flour Mill | 2007 | 7.48 | 0 | 1 | 1 | 0 | 0.78 | 9.33072781 | 12.4377525 | 1.036679823 | 0.736259119 |
| Honeywell Flour Mill | 2008 | 4.47 | 0 | 1 | 1 | 0 | 0.77 | 9.42059631 | 21.90221979 | 0.994700506 | 8.534966295 |
| Honeywell Flour Mill | 2009 | 4.66 | 0 | 1 | 1 | 0 | 0.92 | 9.57464047 | 18.86603488 | 1.054029186 | 0.817819477 |
| Honeywell Flour Mill | 2010 | 5.21 | 1 | 1 | 1 | 0 | 0.47 | 9.60280222 | 17.99640995 | 1.045128651 | 5.283644505 |
| Honeywell Flour Mill | 2011 | 2.49 | 1 | 1 | 1 | 0 | 0.5 | 2.6370643 | 17.77781891 | 0.986476926 | 0.16654762 |
| Honeywell Flour Mill | 2012 | 1.88 | 1 | 1 | 1 | 0 | 0.79 | 1.5162184 | 9.22439 | 6.660304 | 1.516218 |
| Honeywell Flour Mill | 2013 | 1.32 | 1 | 1 | 1 | 0 | 0.71 | 0.6345154 | 2.61495 | 3.740927 | 0.634515 |
| Honeywell Flour Mill | 2014 | 0.32 | 0 | 1 | 1 | 0 | 0.74 | 1.3752229 | 6.31128 | 3.270165 | 1.375223 |
| Honeywell Flour Mill | 2015 | 0.17 | 0 | 1 | 1 | 0 | 0.94 | 0.9440326 | 7.80458 | 1.551607 | 0.944033 |
| Honeywell Flour Mill | 2016 | 0.44 | 0 | 1 | 1 | 0 | 0.9 | 2.5720059 | 18.6061 | 2.3807 | 2.572006 |
| Honeywell Flour Mill | 2017 | 0.05 | 0 | 1 | 1 | 0 | 0.87 | 2.0429499 | 15.3376 | -0.68356 | 2.04295 |
| Honeywell Flour Mill | 2018 | 10.57 | 0 | 1 | 1 | 0 | 0.57 | 2.0463694 | 15.5232 | 0.422305 | 2.046369 |
| Premier Paints | 1997 | 8.47 | 0 | 1 | 1 | 0 | 0.43 | 6.7087645 | 22.2747 | 6.825611 | 8982592 |
| Premier Paints | 1998 | 16.98 | 0 | 1 | 1 | 0 | 0.63 | 4.798247 | 19.1592 | 5.633027 | 11015735 |
| Premier Paints | 1999 | 8.52 | 0 | 1 | 1 | 0 | 0.52 | 5.6602847 | 21.0853 | 6.708765 | 12513567 |
| Premier Paints | 2000 | 6.61 | 0 | 1 | 1 | 0 | 0.78 | 5.6610273 | 26.5534 | 4.798247 | 14232297 |
| Premier Paints | 2001 | 7.11 | 0 | 1 | 1 | 0 | 0.75 | 4.6661744 | 20.2534 | 5.660285 | 17060270 |
| Premier Paints | 2002 | 4.09 | 0 | 1 | 1 | 0 | 0.75 | 5.5606279 | 22.7104 | 5.661027 | 19204134 |
| Premier Paints | 2003 | 8.48 | 0 | 1 | 1 | 0 | 0.74 | 11.518495 | 37.1326 | 4.666174 | 21747790 |
| Premier Paints | 2004 | 5.46 | 0 | 1 | 1 | 0 | 0.74 | 10.527586 | 29.7731 | 5.560628 | 22888989 |
| Premier Paints | 2005 | 7.21 | 0 | 1 | 1 | 0 | 0.71 | 8.8351561 | 13.0001 | 11.5185 | 28469409 |
| Premier Paints | 2006 | 8.58 | 0 | 1 | 1 | 0 | 0.79 | 7.5154086 | 11.9802 | 10.52759 | 30477530 |
| Premier Paints | 2007 | 10.46 | 0 | 1 | 1 | 0 | 0.82 | 3.3147786 | 6.92491 | 4.326871 | 0.00 |
| Premier Paints | 2008 | 9.11 | 0 | 1 | 1 | 0 | 0.5 | 1.567252 | 3.19543 | 6.96066 | 0.00 |
| Premier Paints | 2009 | 9.85 | 0 | 1 |  |  | 0.6 | 1.2471877 | 2.77806 | 8.835156 | 3283555 |
| Premier Paints | 2010 | 5.92 | 0 | 1 | 1 | 0 | 0.81 | 3.340756 | 7.0217 | 7.515409 | 3661712 |
| Premier Paints | 2011 | 5.40 | 0 | 1 | 1 | 0 | 0.61 | 0.6556017 | 1.5176 | 3.314779 | 3498769 |
| Premier Paints | 2012 | 8.88 | 0 | 1 | 1 | 0 | 0.78 | -0.786538 | -1.9468 | 1.567252 | 3869703 |
| Premier Paints | 2013 | 7.33 | 0 | 1 | 1 | 0 | 0.66 | 4.1593774 | 13.6943 | 1.247188 | 3444534 |
| Premier Paints | 2014 | 11.45 | 0 | 1 | 1 | 1 | 0.66 | 6.3213046 | 20.2381 | 3.340756 | 3076657 |
| Premier Paints | 2015 | 8.22 | 0 | 1 | 1 | 1 | 0.74 | 6.6603038 | 28.1783 | 0.655602 | 0.00 |
| Premier Paints | 2016 | 10.76 | 0 | 1 | 1 | 1 | 0.05 | 3.7409272 | 13.9357 | -0.78654 | 0.00 |
| Premier Paints | 2017 | 4.90 | 0 | 1 | 1 | 0 | 0.06 | 3.270165 | 13.4155 | 5.064442 | 219302 |
| Premier Paints | 2018 | 4.12 | 0 | 1 | 1 | 0 | 0.14 | 1.5516072 | 7.31296 | 6.369941 | 243858 |
| Pharma-Deko | 1997 | 3.83 | 1 | 1 | 1 | 0 | 0.35 | 5.8038796 | 0.511322898 | 1.436095801 | 0.714285714 |
| Pharma-Deko | 1998 | 0.10 | 1 | 1 | 1 | 0 | 0.34 | 5.80726097 | -2.97877615 | 1.187498331 | 0.714285714 |
| Pharma-Deko | 1999 | 3.77 | 1 | 1 | 1 | 0 | 0.54 | 5.82768712 | -20.0378364 | 1.233020831 | 0.714285714 |
| Pharma-Deko | 2000 | 1.76 | 1 | 1 | 1 | 0 | 0.51 | 5.80558649 | -21.7610004 | 1.261665566 | 0.714285714 |
| Pharma-Deko | 2001 | 3.83 | 1 | 1 | 1 | 0 | 0.5 | 7.49103152 | 17.48287237 | 1.516032832 | 0.714285714 |
| Pharma-Deko | 2002 | 1.49 |  |  |  |  | 0.44 | 7.55103827 | 11.69072944 | 3.960430391 | 0.5 |
| Pharma-Deko | 2003 | 13.21 | 0 | 1 | 1 | 0 | 0.6 | 7.61521026 | 19.08289333 | 1.263836218 | 0.5 |
| Pharma-Deko | 2004 | 6.21 | 1 | 1 | 1 | 0 | 0.57 | 7.93773189 | 10.02905491 | 2.414313416 | 0.5 |
| Pharma-Deko | 2005 | 3.38 | 0 | 1 | 1 | 0 | 0.61 | 7.88901592 | 2.316808129 | 1.602541417 | 0.285714286 |
| Pharma-Deko | 2006 | 7.07 | 1 | 1 | 1 | 0 | 0.59 | 7.81873818 | -8.93768111 | 0.999084255 | 0.285714286 |
| Pharma-Deko | 2007 | 10.79 | 0 | 1 | 1 | 0 | 0.47 | 7.73879235 | -37.3583777 | 1.432900533 | 0.285714286 |
| Pharma-Deko | 2008 | 9.46 | 1 | 1 | 1 | 0 | 0.59 | 7.69333098 | -65.3436485 | 1.534052433 | 0.285714286 |
| Pharma-Deko | 2009 | 16.47 | 1 | 1 | 1 | 0 | 0.58 | 7.4198921 | 520.5249049 | 1.375771097 | 0.285714286 |
| Pharma-Deko | 2010 | 2.61 | 0 | 0 | 0 | 0 | 0.5 | 7.55019111 | 43.64898329 | 3.233264903 | 0.285714286 |
| Pharma-Deko | 2011 | 6.51 | 0 | 1 | 1 | 0 | 0.4 | 6.41412933 | 5.240948485 | 1.043490278 | 0.714285714 |
| Pharma-Deko | 2012 | 7.78 | 0 | 1 | 1 | 0 | 0.49 | 6.45929687 | 5.964448889 | 0.935439397 | 0.714285714 |
| Pharma-Deko | 2013 | 8.09 | 0 | 1 | 1 | 0 | 0.47 | 6.4245455 | 20.13604795 | 0.744037535 | 0.142857143 |
| Pharma-Deko | 2014 | 0.03 | 0 | 1 | 1 | 1 | 0.34 | 6.4281685 | -65.6321876 | 0.909554618 | 0.142857143 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pharma-Deko | 2015 | 15.08 | 0 | 1 | 1 | 1 | 0.45 | 6.38284771 | -9.641433 | 0.705449853 | 0.142857143 |
| Pharma-Deko | 2016 | 9.99 | 1 | 1 | 1 | 1 | 0.52 | 6.53435044 | 25.94097047 | 1.839503126 | 0.357142857 |
| Pharma-Deko | 2017 | 13.01 | 1 | 1 | 1 | 0 | 0.57 | 6.6604807 | 31.34401836 | 2.30862236 | 0.5 |
| Pharma-Deko | 2018 | 9.01 | 0 | 1 | 1 | 0 | 0.63 | 6.73212868 | 36.84678762 | 2.366694173 | 0.285714286 |
| Nigerian Enamelware | 1997 | 1.02 | 1 | 1 | 1 | 0 | 0.47 | 6.90633547 | 2.250955505 | 1.059726409 | 0.285714286 |
| Nigerian Enamelware | 1998 | 1.02 | 1 | 1 | 1 | 1 | 0.51 | 6.99459071 | 3.760387605 | 0.966872264 | 0.285714286 |
| Nigerian Enamelware | 1999 | 0.94 | 1 | 1 | 1 | 0 | 0.52 | 7.02170845 | 5.9443465 | 1.012957225 | 0.142857143 |
| Nigerian Enamelware | 2000 | 0.98 | 1 | 1 | 1 | 0 | 0.48 | 8.23977593 | -65.330001 | 1.086319366 | 0.142857143 |
| Nigerian Enamelware | 2001 | 0.96 | 0 | 1 | 1 | 0 | 0.59 | 8.65127026 | 7.667658426 | 0.984922745 | 0.285714286 |
| Nigerian Enamelware | 2002 | 1.16 | 0 | 1 | 1 | 0 | 0.7 | 8.89801613 | 19.51252723 | 1.141115072 | 0.285714286 |
| Nigerian Enamelware | 2003 | 1.32 | 1 | 1 | 1 | 0 | 0.7 | 8.80106808 | 16.70219727 | 1.05606722 | 0.5 |
| Nigerian Enamelware | 2004 | 1.13 | 1 | 1 | 1 | 0 | 0.69 | 8.84871796 | -0.13601681 | 0.928411541 | 0.571428571 |
| Nigerian Enamelware | 2005 | 1.01 | 1 | 1 | 1 | 0 | 0.75 | 8.96107209 | 9.374803418 | 0.985039812 | 0.5 |
| Nigerian Enamelware | 2006 | 1.06 | 1 | 1 | 1 | 0 | 0.68 | 9.03093472 | 2.636205622 | 0.989656883 | 0.5 |
| Nigerian Enamelware | 2007 | 1.04 | 1 | 1 | 1 | 0 | 0.74 | 9.04791163 | 11.82854042 | 0.946128626 | 0.857142857 |
| Nigerian Enamelware | 2008 | 0.99 | 1 | 1 | 1 | 0 | 0.3 | 9.15262831 | 13.30648175 | 0.947425493 | 0.857142857 |
| Nigerian Enamelware | 2009 | 1.05 | 1 | 1 | 1 | 1 | 0.3 | 9.07896296 | 7.365261311 | 0.937402172 | 0.857142857 |
| Nigerian Enamelware | 2010 | 1.05 | 1 | 1 | 1 | 0 | 0.27 | 8.05378238 | -39.1656988 | 0.937696126 | 0.857142857 |
| Nigerian Enamelware | 2011 | 0.99 | 1 | 1 | 1 | 0 | 0.38 | 8.20104202 | 12.19197302 | 1.245780246 | 0.285714286 |
| Nigerian Enamelware | 2012 | 6.71 | 0 | 1 | 1 | 0 | 0.46 | 8.43121415 | 13.98740922 | 1.454698816 | 0.642857143 |
| Nigerian Enamelware | 2013 | 4.80 | 0 | 1 | 1 | 0 | 0.55 | 8.41462076 | 14.86784687 | 1.775190332 | 0.714285714 |
| Nigerian Enamelware | 2014 | 5.66 | 1 | 1 | 1 | 0 | 0.5 | 8.58494265 | 10.11182903 | 1.215093072 | 0.642857143 |
| Nigerian Enamelware | 2015 | 5.66 | 1 | 1 | 1 | 0 | 0.29 | 8.74368611 | 11.28955224 | 1.223667957 | 0.642857143 |
| Nigerian Enamelware | 2016 | 4.67 | 1 | 1 | 1 | 0 | 0.65 | 8.83047254 | 8.317577973 | 1.013344761 | 0.928571429 |
| Nigerian Enamelware | 2017 | 5.56 | 1 | 1 | 1 | 0 | 0.5 | 8.82309063 | 12.18727877 | 0.976875649 | 0.714285714 |
| Nigerian Enamelware | 2018 | 11.52 | 1 | 1 | 1 | 0 | 0.41 | 8.97522127 | 22.02559562 | 1.337784711 | 0.714285714 |
| Meyer | 1997 | 2.35 | 0 | 1 | 1 | 0 | 0.52 | 7.25469842 | 2.695751771 | 0.359102404 | 0.5 |
| Meyer | 1998 | 1.94 | 0 | 1 | 1 | 0 | 0.66 | 7.28986166 | 2.084959483 | 0.355354368 | 0.5 |
| Meyer | 1999 | 1.16 | 0 | 1 | 1 | 0 | 0.73 | 5.50750101 | 3.140809524 | 0.368466604 | 0.5 |
| Meyer | 2000 | 2.38 | 0 | 1 | 1 | 0 | 0.87 | 5.58713264 | -217.941445 | 7.97279455 | 0.285714286 |
| Meyer | 2001 | 1.91 |  |  |  |  | 0.74 | 5.94070271 | -2.48414581 | 18.63350453 | 0.285714286 |
| Meyer | 2002 | 1.05 | 1 | 1 | 1 | 0 | 0.34 | 5.94070271 | 12.56924751 | 12.27508156 | 0.285714286 |
| Meyer | 2003 | 0.97 | 1 | 1 | 1 | 0 | 0.44 | 6.03207777 | 7.603717057 | 3.070373487 | 0.285714286 |
| Meyer | 2004 | 0.90 | 1 | 1 | 1 | 0 | 0.38 | 6.19108532 | 6.704503463 | 1.852486119 | 0.285714286 |
| Meyer | 2005 | 0.90 | 1 | 1 | 1 | 0 | 0.4 | 6.31645703 | 20.00457883 | 1.328971876 | 0.285714286 |
| Meyer | 2006 | 0.92 | 1 | 1 | 1 | 0 | 0.5 | 6.56473753 | 22.77180002 | 1.872061326 | 0.285714286 |
| Meyer | 2007 | 0.89 | 1 | 1 | 1 | 0 | 0.57 | 6.75987822 | 12.18375122 | 2.648303658 | 0.285714286 |
| Meyer | 2008 | 1.05 | 0 | 1 | 1 | 0 | 0.67 | 6.65986992 | 12.81164657 | 1.758954357 | 0.285714286 |
| Meyer | 2009 | 2.20 | 0 | 0 | 1 | 0 | 0.62 | 6.59819631 | 9.64270815 | 1.440134216 | 0.428571429 |
| Meyer | 2010 | 1.26 | 0 | 0 | 1 | 0 | 0.32 | 6.64884781 | 8.079558453 | 1.662569371 | 0.5 |
| Meyer | 2011 | 1.71 | 0 | 0 | 1 | 0 | 0.48 | 6.75785953 | 7.964249231 | 3.168910316 | 0.5 |
| Meyer | 2012 | 0.82 | 0 | 1 | 1 | 0 | 0.5 | 6.78914676 | 15.1786045 | 2.33308017 | 0.357142857 |
| Meyer | 2013 | 0.56 | 0 | 1 | 1 | 0 | 0.57 | 6.83358769 | 8.577462379 | 1.265894689 | 0.285714286 |
| Meyer | 2014 | 0.65 | 0 | 0 | 1 | 0 | 0.59 | 6.84740397 | 6.692726324 | 1.322955607 | 0.285714286 |
| Meyer | 2015 | 0.66 | 0 | 1 | 1 | 0 | 0.59 | 6.90684157 | 8.099030134 | 1.090695307 | 0.285714286 |
| Meyer | 2016 | 0.71 | 0 | 1 | 1 | 0 | 0.5 | 6.91169271 | 2.424515435 | 0.809180998 | 0.357142857 |
| Meyer | 2017 | 0.77 | 1 | 1 | 1 | 0 | 0.45 | 6.90825478 | -3.40316789 | 0.893590454 | 0.285714286 |
| Meyer | 2018 | 0.82 | 0 | 1 | 1 | 0 | 0.49 | 6.91575525 | 2.048181629 | 0.83105268 | 0.5 |
| McNichols | 1997 | 0.74 | 1 | 1 | 1 | 0 | 0.55 | 7.82858199 | 12.52687631 | 2.350593441 | 0.357142857 |
| McNichols | 1998 | 0.91 | 1 | 1 | 1 | 0 | 0.53 | 6.67916788 | 11.03075311 | 1.941770026 | 0.642857143 |
| McNichols | 1999 | 0.71 | 1 | 1 | 1 | 0 | 0.51 | 6.86828551 | 22.25464175 | 1.156746036 | 0.285714286 |
| McNichols | 2000 | 1.84 | 1 | 1 | 1 | 0 | 0.42 | 6.98636469 | 21.64520338 | 2.38452394 | 0.285714286 |
| McNichols | 2001 | 2.31 | 1 | 0 | 1 | 0 | 0.43 | 6.88448513 | 19.50963184 | 1.908463214 | 0.285714286 |
| McNichols | 2002 | 2.37 | 1 | 1 | 1 | 1 | 0.42 | 6.97446269 | 13.18359625 | 1.054407478 | 0.285714286 |
| McNichols | 2003 | 1.28 | 1 | 1 | 1 | 1 | 0.45 | 7.17749492 | 4.405218406 | 0.967930466 | 0.285714286 |
| McNichols | 2004 | 1.45 |  |  |  |  | 0.44 | 7.14967873 | 4.256369094 | 0.896788971 | 0.285714286 |
| McNichols | 2005 | 1.20 | 1 | 1 | 1 | 0 | 0.68 | 7.18524782 | -8.95953259 | 0.899837681 | 0.285714286 |
| McNichols | 2006 | 0.96 | 1 | 1 | 1 | 0 | 0.7 | 7.27752993 | -3.01716138 | 0.917299222 | 0.285714286 |
| McNichols | 2007 | 1.03 | 1 | 1 | 1 | 0 | 0.72 | 7.14424579 | -55.9353231 | 0.890129335 | 0.285714286 |
| McNichols | 2008 | 1.04 | 1 | 1 | 1 | 0 | 0.78 | 6.7811478 | 10264.71844 | 1.045117582 | 0.285714286 |
| McNichols | 2009 | 1.04 | 1 | 1 | 1 | 1 | 0.84 | 7.18562107 | 5.571528067 | 2.197258846 | 0.285714286 |
| McNichols | 2010 | 1.59 | 1 | 1 | 1 | 1 | 0.84 | 7.09016113 | 4.56217488 | 1.257494091 | 0.285714286 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| McNichols | 2011 | 0.80 | 1 | 1 | 1 | 1 | 0.84 | 7.15843713 | -40.0314315 | 1.712842725 | 0.285714286 |
| McNichols | 2012 | 3.00 | 1 | 1 | 1 | 1 | 0.37 | 7.11668337 | 2.035102887 | 0.82342462 | 0.285714286 |
| McNichols | 2013 | 1.21 | 1 | 1 | 1 | 0 | 0.38 | 7.19050177 | 3.267477694 | 0.560676423 | 0.285714286 |
| McNichols | 2014 | 0.63 | 1 | 1 | 1 | 0 | 0.26 | 7.21223543 | -0.63008448 | 0.653200221 | 0.285714286 |
| McNichols | 2015 | 0.61 | 1 | 1 | 1 | 0 | 0.31 | 7.30692982 | 7.675738596 | 0.660838893 | 0.285714286 |
| McNichols | 2016 | 0.61 | 1 | 1 | 1 | 1 | 0.22 | 7.41519815 | 1.242836033 | 0.706860382 | 0.5 |
| McNichols | 2017 | 0.58 | 1 | 1 | 1 | 1 | 0.25 | 7.42365935 | 1.681719797 | 0.767878187 | 0.5 |
| McNichols | 2018 | 0.82 | 1 | 1 | 1 | 1 | 0.2 | 6.54508434 | -17.4914991 | 0.817021424 | 0.5 |
| FTN Cocoa Processor | 1997 | 3.79 | 1 | 1 | 1 | 0 | 0.34 | 6.51 | 0.0001 | 0.63 | 1.086 |
| FTN Cocoa Processor | 1998 | 3.53 | 1 | 1 | 1 | 0 | 0.4 | 6.56 | 0.0001 | 0.56 | 0.71 |
| FTN Cocoa Processor | 1999 | 4.79 | 1 | 1 | 1 | 0 | 0.44 | 6.63 | 0.0102 | 0.6 | 0.748 |
| FTN Cocoa Processor | 2000 | 8.36 | 1 | 1 | 1 | 1 | 0.36 | 6.42 | 0.0441 | 0.71 | 0.782 |
| FTN Cocoa Processor | 2001 | 8.47 | 1 | 1 | 1 | 0 | 0.35 | 6.43 | 0.0442 | 0.68 | 0.583 |
| FTN Cocoa Processor | 2002 | 8.98 | 1 | 1 | 1 | 0 | 0.39 | 6.46 | 0.067 | 0.67 | 0.498 |
| FTN Cocoa Processor | 2003 | 8 | 0 | 1 | 1 | 1 | 0.31 | 6.55 | 0.092 | 0.57 | 0.683 |
| FTN Cocoa Processor | 2004 | 9 | 0 | 1 | 1 | 1 | 0.32 | 6.56 | 0.0209 | 0.6 | 0.613 |
| FTN Cocoa Processor | 2005 | 10 | 0 | 1 | 1 | 1 | 0.34 | 6.59 | 0.0225 | 0.55 | 0.579 |
| FTN Cocoa Processor | 2006 | 6.4 | 0 | 1 | 1 | 0 | 0.37 | 6.61 | 0.0587 | 0.47 | 0.504 |
| FTN Cocoa Processor | 2007 | 8.49 | 1 | 1 | 1 | 1 | 0.39 | 6.63 | 0.0635 | 0.4 | 0.533 |
| FTN Cocoa Processor | 2008 | 15.58 | 1 | 1 | 1 | 0 | 0.39 | 7.21 | 0.0025 | 0.38 | 0.594 |
| FTN Cocoa Processor | 2009 | 12.71 | 1 | 1 | 1 | 0 | 0.37 | 7.26 | 0.0006 | 0.37 | 0.535 |
| FTN Cocoa Processor | 2010 | 10.5 | 1 | 1 | 1 | 0 | 0.45 | 7.35 | 0.0006 | 0.41 | 0.779 |
| FTN Cocoa Processor | 2011 | 14.43 | 1 | 1 | 1 | 0 | 0.49 | 7.43 | 0.0005 | 0.34 | 0.666 |
| FTN Cocoa Processor | 2012 | 10.57 | 0 | 1 | 1 | 0 | 0.57 | 2.0463694 | 15.5232 | 0.422305 | 2.046369 |
| FTN Cocoa Processor | 2013 | 8.47 | 0 | 1 | 1 | 0 | 0.43 | 6.7087645 | 22.2747 | 6.825611 | 8982592 |
| FTN Cocoa Processor | 2014 | 16.98 | 0 | 1 | 1 | 0 | 0.63 | 4.798247 | 19.1592 | 5.633027 | 11015735 |
| FTN Cocoa Processor | 2015 | 8.52 | 0 | 1 | 1 | 0 | 0.52 | 5.6602847 | 21.0853 | 6.708765 | 12513567 |
| FTN Cocoa Processor | 2016 | 6.61 | 0 | 1 | 1 | 0 | 0.78 | 5.6610273 | 26.5534 | 4.798247 | 14232297 |
| FTN Cocoa Processor | 2017 | 7.11 | 0 | 1 | 1 | 0 | 0.75 | 4.6661744 | 20.2534 | 5.660285 | 17060270 |
| FTN Cocoa Processor | 2018 | 4.09 | 0 | 1 | 1 | 0 | 0.75 | 5.5606279 | 22.7104 | 5.661027 | 19204134 |
| First Aluminum Nigeria | 1997 | 1.7 | 0 | 1 | 1 | 0 | 0.46 | 6.63 | 0.7631 | 0.83 | 0.582 |
| First Aluminum Nigeria | 1998 | 2.21 | 0 | 1 | 1 | 0 | 0.55 | 6.66 | 0.4034 | 0.92 | 0.513 |
| First Aluminum Nigeria | 1999 | 2.5 | 0 | 1 | 1 | 0 | 0.5 | 6.81 | 0.4034 | 0.6 | 0.27 |
| First Aluminum Nigeria | 2000 | 6.24 | 1 | 1 | 1 | 1 | 0.29 | 6.7 | 0.7512 | 0.44 | 0.234 |
| First Aluminum Nigeria | 2001 | 12.39 | 0 | 1 | 1 | 0 | 0.65 | 5.93 | 0.0006 | 0.3 | 0.321 |
| First Aluminum Nigeria | 2002 | 11.15 | 1 | 1 | 1 | 0 | 0.5 | 6.09 | 0.0006 | 0.3 | 0.421 |
| First Aluminum Nigeria | 2003 | 10.55 | 1 | 1 | 1 | 0 | 0.41 | 6.21 | 0.0002 | 0.27 | 0.395 |
| First Aluminum Nigeria | 2004 | 10.5 | 1 | 1 | 1 | 0 | 0.43 | 6.23 | 0.0002 | 0.38 | 0.441 |
| First Aluminum Nigeria | 2005 | 10.43 | 1 | 1 | 1 | 0 | 0.37 | 6.24 | 0.0002 | 0.46 | 0.779 |
| First Aluminum Nigeria | 2006 | 9.35 | 1 | 1 | 1 | 0 | 0.38 | 6.26 | 0.0002 | 0.55 | 0.625 |
| First Aluminum Nigeria | 2007 | 9.27 | 1 | 1 | 1 | 0 | 0.19 | 6.58 | 0.0002 | 0.5 | 0.596 |
| First Aluminum Nigeria | 2008 | 9.18 |  |  |  |  | 0.29 | 6.35 | 0.0002 | 0.29 | 0.162 |
| First Aluminum Nigeria | 2009 | 0.55 | 0 | 1 | 1 | 0 | 0.53 | 6.57 | 0.4729 | 0.76 | 1.198 |
| First Aluminum Nigeria | 2010 | 0.5 | 1 | 1 | 1 | 0 | 0.63 | 6.71 | 0.4785 | 0.66 | 0.823 |
| First Aluminum Nigeria | 2011 | 0.5 | 0 | 1 | 1 | 0 | 0.56 | 6.7 | 0.4594 | 0.65 | 0.889 |
| First Aluminum Nigeria | 2012 | 0.82 | 1 | 1 | 1 | 0 | 0.6 | 6.75 | 0.6153 | 0.5 | 1.098 |
| First Aluminum Nigeria | 2013 | 0.55 | 0 | 1 | 1 | 0 | 0.71 | 6.81 | 0.6228 | 0.41 | 1.076 |
| First Aluminum Nigeria | 2014 | 0.5 | 1 | 1 | 1 | 0 | 0.68 | 6.78 | 0.5695 | 0.43 | 0.808 |
| First Aluminum Nigeria | 2015 | 0.5 | 1 | 1 | 1 | 0 | 0.67 | 6.64 | 0.5695 | 0.37 | 0.765 |
| First Aluminum Nigeria | 2016 | 0.5 | 0 | 0 | 0 | 0 | 0.57 | 6.65 | 0.5693 | 0.38 | 0.757 |
| First Aluminum Nigeria | 2017 | 9.2 | 1 | 1 | 1 | 0 | 0.47 | 6.33 | 0.0007 | 0.19 | 0.86 |
| First Aluminum Nigeria | 2018 | 6.85 | 1 | 1 | 1 | 0 | 0.4 | 6.35 | 0.0006 | 0.29 | 0.406 |
| Evans Medical | 1997 | 11.54 | 1 | 1 | 1 | 0 | 0.31 | 8.1745378 | 6.100521861 | 1.177909715 | 0.285714286 |
| Evans Medical | 1998 | 12.23 | 1 | 1 | 1 | 0 | 0.23 | 8.23237435 | 8.027437008 | 0.867532182 | 0.285714286 |
| Evans Medical | 1999 | 16.36 | 1 | 0 | 1 | 0 | 0.19 | 8.30724769 | 3.681427759 | 1.372347295 | 0.285714286 |
| Evans Medical | 2000 | 14.85 | 1 | 0 | 1 | 0 | 0.39 | 5.27275568 | 2.321640634 | 1.045825515 | 0.357142857 |
| Evans Medical | 2001 | 11.50 | 1 | 0 | 1 | 0 | 0.48 | 5.3605153 | 27.68440936 | 1.078609454 | 0.285714286 |
| Evans Medical | 2002 | 9.10 | 1 | 0 | 1 | 0 | 0.48 | 5.43142146 | 35.27169468 | 0.818908019 | 0.285714286 |
| Evans Medical | 2003 | 6.60 | 1 | 1 | 1 | 0 | 0.56 | 5.70840681 | 30.79688676 | 4.357037798 | 0.285714286 |
| Evans Medical | 2004 | 3.77 | 1 | 0 | 1 | 1 | 0.51 | 5.70980732 | 14.59817941 | 2.086476727 | 0.285714286 |
| Evans Medical | 2005 | 2.10 | 1 | 1 | 1 | 0 | 0.61 | 5.76307817 | 12.04400393 | 1.840211564 | 0.285714286 |
| Evans Medical | 2006 | 4.91 | 1 | 1 | 1 | 0 | 0.7 | 5.78180347 | 10.64288699 | 1.890232308 | 0.285714286 |
| Evans Medical | 2007 | 7.27 | 1 | 0 | 1 | 0 | 0.88 | 5.82277723 | -10.9345441 | 1.568481672 | 0.285714286 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Evans Medical | 2008 | 8.47 | 1 | 0 | 1 | 0 | 0.7 | 5.79758674 | 20.29619145 | 1.007004148 | 0.285714286 |
| Evans Medical | 2009 | 16.98 | 1 | 1 | 1 | 0 | 0.9 | 5.81708057 | 16.79777811 | 0.997158975 | 0.285714286 |
| Evans Medical | 2010 | 8.52 | 1 | 1 | 1 | 1 | 0.79 | 6.17145614 | 11.90698109 | 0.691550185 | 0.357142857 |
| Evans Medical | 2011 | 6.61 | 1 | 1 | 1 | 1 | 0.71 | 6.18621475 | 2.867428228 | 0.662710542 | 0.285714286 |
| Evans Medical | 2012 | 7.11 | 1 | 1 | 1 | 1 | 0.74 | 6.17029487 | 7.128544015 | 1.666296345 | 0.285714286 |
| Evans Medical | 2013 | 4.09 | 0 | 1 | 1 | 0 | 0.94 | 6.22947578 | 13.00059363 | 2.34233052 | 0.5 |
| Evans Medical | 2014 | 8.48 | 0 | 1 | 1 | 0 | 0.9 | 6.15459559 | 16.60593248 | 2.441026865 | 0.5 |
| Evans Medical | 2015 | 5.46 | 0 | 1 | 1 | 0 | 0.87 | 6.15953561 | -7.42067106 | 1.866343991 | 0.5 |
| Evans Medical | 2016 | 7.21 | 0 | 1 | 1 | 0 | 0.57 | 6.23380883 | -7.7389918 | 1.67861426 | 0.5 |
| Evans Medical | 2017 | 8.58 | 0 | 1 | 1 | 0 | 0.52 | 6.22254324 | -0.97063495 | 1.338431525 | 0.5 |
| Evans Medical | 2018 | 10.46 | 0 | 1 | 1 | 0 | 0.61 | 6.24316956 | 1.74253171 | 1.679801362 | 0.5 |
| Ekocorp | 1997 | 4.09 | 1 | 1 | 1 | 1 | 1.38 | 6.1576571 | 21.80989073 | 1.747196616 | 0.357142857 |
| Ekocorp | 1998 | 5.78 | 1 | 1 | 1 | 0 | 0.61 | 6.17539583 | -392.435841 | 1.18736301 | 0.285714286 |
| Ekocorp | 1999 | 4.73 | 0 | 1 | 1 | 0 | 0.65 | 6.17247332 | 364.6823306 | 1.372366408 | 0.285714286 |
| Ekocorp | 2000 | 3.93 | 0 | 1 | 1 | 0 | 0.67 | 6.0953106 | 107.0639771 | 1.838998808 | 0.285714286 |
| Ekocorp | 2001 | 1.08 | 0 | 1 | 1 | 0 | 0.73 | 6.21154715 | 71.39418354 | 2.266142774 | 0.285714286 |
| Ekocorp | 2002 | 1.38 | 0 | 1 | 1 | 0 | 0.82 | 6.4098378 | 41.81027027 | 1.971410243 | 0.285714286 |
| Ekocorp | 2003 | 1.15 | 0 | 1 | 1 | 0 | 1.06 | 6.44448371 | -2.47478222 | 1.403413481 | 0.285714286 |
| Ekocorp | 2004 | 1.06 | 0 | 1 | 1 | 0 | 0.69 | 6.39761608 | 78.53719187 | 0.774426445 | 0.285714286 |
| Ekocorp | 2005 | 1.02 |  |  |  |  | 0.71 | 6.45320042 | -14.5967764 | 0.750659834 | 0.5 |
| Ekocorp | 2006 | 1.01 | 0 | 1 | 1 | 0 | 0.84 | 6.40994698 | 10.84692506 | 0.731901788 | 0.5 |
| Ekocorp | 2007 | 0.97 | 0 | 1 | 1 | 0 | 0.83 | 5.20086144 | 36.92948173 | 0.389831935 | 0.5 |
| Ekocorp | 2008 | 1.00 | 0 | 1 | 1 | 0 | 0.85 | 5.00046072 | 8 | 1.00381727 | 0.142857143 |
| Ekocorp | 2009 | 0.99 | 0 | 1 | 1 | 0 | 0.83 | 4.93765466 | 7.172226943 | 0.463944403 | 0.142857143 |
| Ekocorp | 2010 | 0.93 | 0 | 1 | 1 | 0 | 0.85 | 5.06914248 | 1.984700862 | 0.256442541 | 0.142857143 |
| Ekocorp | 2011 | 1.04 | 0 | 1 | 1 | 0 | 0.81 | 5.09269609 | -24.8244887 | 0.97651866 | 0.285714286 |
| Ekocorp | 2012 | 1.28 | 0 | 1 | 1 | 0 | 0.83 | 5.43892347 | 591.5093058 | 1.682895975 | 0.285714286 |
| Ekocorp | 2013 | 1.19 | 1 | 1 | 1 | 0 | 0.74 | 5.34452588 | -76 | 1.257286508 | 0.285714286 |
| Ekocorp | 2014 | 1.05 | 0 | 1 | 1 | 0 | 1.04 | 5.40109367 | -254.07314 | 1.432877305 | 0.285714286 |
| Ekocorp | 2015 | 0.97 | 0 | 1 | 1 | 0 | 0.8 | 5.46087079 | 228.8282434 | 1.416724792 | 0.285714286 |
| Ekocorp | 2016 | 0.94 | 0 | 1 | 1 | 0 | 0.84 | 5.53312229 | -707.874016 | 5.65611353 | 0.285714286 |
| Ekocorp | 2017 | 0.90 | 1 | 1 | 1 | 0 | 0.84 | 6.07689556 | -114.00688 | 4.863344555 | 0.285714286 |
| Ekocorp | 2018 | 0.99 | 0 | 1 | 1 | 0 | 0.89 | 6.66849429 | 10.06039391 | 7.018510977 | 0.5 |
| Dangote Cement | 1997 | 4.12 | 0 | 1 | 1 | 0 | 0.81 | 8.10942778 | 14.40774363 | 1.289036746 | 0.428571429 |
| Dangote Cement | 1998 | 10.91 | 1 | 1 | 1 | 0 | 0.79 | 6.86835373 | 6.942018563 | 0.963222647 | 0.785714286 |
| Dangote Cement | 1999 | 8.60 | 1 | 1 | 1 | 0 | 0.8 | 6.88732445 | 5.729685909 | 1.452608012 | 0.5 |
| Dangote Cement | 2000 | 13.95 | 1 | 1 | 1 | 0 | 0.1 | 6.91143195 | 8.91792767 | 2.191473036 | 0.5 |
| Dangote Cement | 2001 | 5.25 | 0 | 1 | 1 | 0 | 0.14 | 6.8841495 | 5.13888941 | 1.313602889 | 0.285714286 |
| Dangote Cement | 2002 | 4.06 | 0 | 1 | 1 | 0 | 0.33 | 6.83855676 | -5.23681305 | 0.750889653 | 0.285714286 |
| Dangote Cement | 2003 | 1.04 | 1 | 1 | 1 | 1 | 0.32 | 6.78311692 | -36.5464178 | 0.795785207 | 0.285714286 |
| Dangote Cement | 2004 | 2.13 | 1 | 1 | 1 | 0 | 0.32 | 6.77989217 | -4.91658672 | 0.716847446 | 0.285714286 |
| Dangote Cement | 2005 | 17.40 | 1 | 1 | 1 | 0 | 0.29 | 6.70963624 | -12.9645246 | 0.752119321 | 0.285714286 |
| Dangote Cement | 2006 | 34.17 | 1 | 1 | 1 | 0 | 0.22 | 6.64679853 | -73.5825223 | 0.9374276 | 0.285714286 |
| Dangote Cement | 2007 | 11.84 | 1 | 1 | 1 | 0 | 0.22 | 7.2700374 | -73.160658 | 1.080963386 | 0.285714286 |
| Dangote Cement | 2008 | 18.33 | 1 | 1 | 1 | 0 | 0.55 | 7.30862698 | -34.7645338 | 3.997333995 | 0.5 |
| Dangote Cement | 2009 | 8.40 | 1 | 1 | 1 | 0 | 0.47 | 7.37093212 | 25.77167966 | 4.091042092 | 0.5 |
| Dangote Cement | 2010 | 9.45 | 1 | 1 | 1 | 0 | 0.46 | 7.37436336 | 38.86121984 | 4.37573935 | 0.5 |
| Dangote Cement | 2011 | 12.16 | 1 | 1 | 1 | 0 | 0.44 | 7.41383601 | 49.90246281 | 2.823889898 | 0.5 |
| Dangote Cement | 2012 | 7.00 | 0 | 1 | 1 | 0 | 0.6 | 7.50852873 | 50.14860423 | 4.367084045 | 0.5 |
| Dangote Cement | 2013 | 6.26 | 0 | 0 | 0 | 0 | 0.62 | 7.56226459 | 41.28848397 | 3.893135144 | 0.5 |
| Dangote Cement | 2014 | 7.12 | 1 | 0 | 1 | 0 | 0.54 | 7.64101889 | 39.51707831 | 4.093241099 | 0.5 |
| Dangote Cement | 2015 | 3.49 | 1 | 0 | 1 | 0 | 0.56 | 7.6602606 | 49.8657582 | 5.784020911 | 0.642857143 |
| Dangote Cement | 2016 | 4.27 | 1 | 0 | 1 | 0 | 0.57 | 7.7004656 | 32.25571508 | 4.732578994 | 0.857142857 |
| Dangote Cement | 2017 | 4.74 | 1 | 1 | 1 | 0 | 0.45 | 8.94651957 | 14.89851689 | 3.928186674 | 0.857142857 |
| Dangote Cement | 2018 | 6.14 | 1 | 1 | 1 | 0 | 0.29 | 9.00986035 | 23.79725971 | 1.083347793 | 0.785714286 |
| African Paints (Nigeria) | 1997 | 0.73 | 1 | 1 | 1 | 0 | 0.82 | 6.28 | 0.0197 | 0.92 | 0.108 |
| African Paints (Nigeria) | 1998 | 5.05 | 1 | 1 | 1 | 0 | 0.5 | 6.97 | 0.0204 | 0.62 | 0.136 |
| African Paints (Nigeria) | 1999 | 2.96 | 1 | 1 | 1 | 0 | 0.6 | 7.17 | 0.0204 | 0.5 | 0.425 |
| African Paints (Nigeria) | 2000 | 2.75 | 0 | 1 | 1 | 0 | 0.81 | 7.52 | 0.2373 | 0.6 | 0.186 |
| African Paints (Nigeria) | 2001 | 2.75 | 0 | 1 | 1 | 0 | 0.61 | 7.26 | 0.2373 | 0.81 | 0.334 |
| African Paints (Nigeria) | 2002 | 2.75 | 0 | 1 | 1 | 0 | 0.78 | 7.11 | 0.3656 | 0.61 | 0.45 |
| African Paints (Nigeria) | 2003 | 2.05 | 0 | 1 | 1 | 0 | 0.66 | 7.46 | 0.3658 | 0.78 | 0.209 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| African Paints (Nigeria) | 2004 | 3.1 | 0 | 1 | 1 | 0 | 0.66 | 7.5 | 0.4348 | 0.66 | 0.229 |
| African Paints (Nigeria) | 2005 | 4.06 | 1 | 1 | 1 | 1 | 0.74 | 7.68 | 0.9435 | 0.66 | 0.273 |
| African Paints (Nigeria) | 2006 | 4.97 | 0 | 1 | 1 | 0 | 0.05 | 6.41 | 0.8435 | 0.74 | 0.299 |
| African Paints (Nigeria) | 2007 | 4.94 | 0 | 1 | 1 | 0 | 0.06 | 6.43 | 0.7785 | 0.29 | 0.436 |
| African Paints (Nigeria) | 2008 | 3.84 | 0 | 1 | 1 | 0 | 0.14 | 6.49 | 0.779 | 0.29 | 0.497 |
| African Paints (Nigeria) | 2009 | 2.56 | 0 | 1 | 1 | 0 | 0.28 | 6.56 | 0.779 | 0.34 | 0.653 |
| African Paints (Nigeria) | 2010 | 3.39 | 0 | 1 | 1 | 0 | 0.36 | 6.67 | 0.7812 | 0.45 | 0.881 |
| African Paints (Nigeria) | 2011 | 3.04 | 0 | 1 | 1 | 0 | 0.4 | 6.77 | 0.4384 | 0.52 | 0.729 |
| African Paints (Nigeria) | 2012 | 5 | 0 | 1 | 1 | 0 | 0.49 | 6.84 | 0.3906 | 0.57 | 0.732 |
| African Paints (Nigeria) | 2013 | 5 |  |  |  |  | 0.47 | 6.8 | 0.3906 | 0.63 | 0.742 |
| African Paints (Nigeria) | 2014 | 3.06 | 0 | 1 | 1 | 0 | 0.34 | 6.9 | 0.4505 | 0.62 | 0.29 |
| African Paints (Nigeria) | 2015 | 0.79 | 0 | 1 | 1 | 0 | 0.45 | 6.97 | 0.4505 | 0.6 | 0.723 |
| African Paints (Nigeria) | 2016 | 1.06 | 0 | 1 | 1 | 0 | 0.52 | 7.03 | 0.4505 | 0.56 | 0.586 |
| African Paints (Nigeria) | 2017 | 2.79 | 0 | 1 | 1 | 0 | 0.57 | 7.09 | 0.4459 | 0.74 | 0.581 |
| African Paints (Nigeria) | 2018 | 3.9 | 1 | 1 | 1 | 0 | 0.63 | 7.2 | 0.4499 | 0.38 | 0.559 |
| Africa Prudential Registrars | 1997 | 8.2 | 0 | 1 | 1 | 0 | 0.67 | 7.89 | 0.459 | 0.4 | 0.35 |
| Africa Prudential Registrars | 1998 | 10.25 | 0 | 1 | 1 | 0 | 0.73 | 7.82 | 0.464 | 0.46 | 0.296 |
| Africa Prudential Registrars | 1999 | 4.55 | 0 | 1 | 1 | 0 | 0.82 | 7.74 | 0.313 | 0.49 | 0.231 |
| Africa Prudential Registrars | 2000 | 1.13 | 0 | 1 | 1 | 0 | 1.06 | 7.69 | 0.318 | 0.44 | 0.306 |
| Africa Prudential Registrars | 2001 | 4.25 | 0 | 1 | 1 | 0 | 0.69 | 7.9 | 0.286 | 0.43 | 0.269 |
| Africa Prudential Registrars | 2002 | 12.15 |  |  |  |  | 0.71 | 8.11 | 0.295 | 0.43 | 0.193 |
| Africa Prudential Registrars | 2003 | 234 | 0 | 1 | 1 | 0 | 0.84 | 7.74 | 0.622 | 0.45 | 0.21 |
| Africa Prudential Registrars | 2004 | 188.1 | 0 | 1 | 1 | 0 | 0.83 | 7.77 | 0.683 | 0.46 | 0.173 |
| Africa Prudential Registrars | 2005 | 120.57 | 0 | 1 | 1 | 0 | 0.85 | 7.88 | 0.541 | 0.41 | 0.205 |
| Africa Prudential Registrars | 2006 | 170 | 0 | 1 | 1 | 0 | 0.83 | 7.9 | 0.649 | 0.45 | 0.2 |
| Africa Prudential Registrars | 2007 | 142.5 | 0 | 1 | 1 | 0 | 0.85 | 7.98 | 0.779 | 0.6 | 0.254 |
| Africa Prudential Registrars | 2008 | 147.01 | 0 | 1 | 1 | 0 | 0.81 | 7.92 | 0.673 | 0.51 | 0.25 |
| Africa Prudential Registrars | 2009 | 299 | 0 | 1 | 1 | 0 | 0.83 | 8.14 | 0.686 | 0.51 | 0.709 |
| Africa Prudential Registrars | 2010 | 229.95 | 1 | 1 | 1 | 0 | 0.74 | 8.03 | 0.609 | 0.57 | 0.507 |
| Africa Prudential Registrars | 2011 | 4.76 | 0 | 1 | 1 | 0 | 1.04 | 7.12 | 0.566 | 0.54 | 0.935 |
| Africa Prudential Registrars | 2012 | 4.32 | 0 | 1 | 1 | 0 | 0.8 | 7.06 | 0.49 | 0.63 | 0.614 |
| Africa Prudential Registrars | 2013 | 4.53 | 0 | 1 | 1 | 0 | 0.84 | 7.05 | 0.345 | 0.69 | 0.457 |
| Africa Prudential Registrars | 2014 | 4.08 | 1 | 1 | 1 | 0 | 0.84 | 7.04 | 0.316 | 0.82 | 0.42 |
| Africa Prudential Registrars | 2015 | 3.51 | 0 | 1 | 1 | 0 | 0.89 | 7.03 | 0.323 | 0.68 | 0.516 |
| Africa Prudential Registrars | 2016 | 3.51 | 0 | 1 | 1 | 0 | 1.14 | 7.02 | 0.321 | 0.79 | 0.51 |
| Africa Prudential Registrars | 2017 | 3.59 | 0 | 1 | 1 | 0 | 1.66 | 7.02 | 0.285 | 0.79 | 0.559 |
| Africa Prudential Registrars | 2018 | 3.67 | 1 | 1 | 1 | 0 | 2.03 | 7 | 0.291 | 0.76 | 0.597 |

**Source:** Annual Reports and Accounts of the Selected Companies (1997 – 2018)

# APPENDIX II RESULTS OUTPUT

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ENV | EMP | GD | ROE | ROA | SP | LEV | FSIZE | EPS |
| Mean | 0.179 | 0.9839 | 0.9113 | 0.24214 | 0.493 | 34.25 | 0.5878 | 7.05648 | 0.617 |
| Median | 0 | 1 | 1 | 0.12915 | 0.484 | 4.45 | 0.57 | 7 | 0.61 |
| Maximum | 1 | 1 | 1 | 2.5496 | 2.966 | 1556 | 2.24 | 9.22 | 2.01 |
| Minimum | 0 | 0 | 0 | 0 | 0.006 | 0.5 | 0 | 5.09 | 0 |
| Std. Dev. | 0.3837 | 0.1261 | 0.2846 | 0.2833 | 0.302 | 114.39 | 0.2449 | 0.78196 | 0.225 |
| Skewness | 1.6744 | -7.6822 | -2.8931 | 1.86145 | 1.524 | 8.26 | 1.4404 | 0.19899 | 1.001 |
| Kurtosis | 3.8037 | 60.016 | 9.3701 | 11.433 | 11.02 | 87.186 | 9.157 | 2.59533 | 6.686 |
|  |  |  |  |  |  |  |  |  |  |
| Jarque-Bera | 306.4 | 90079 | 1913.2 | 2195.19 | 1902 | 190139 | 1193.7 | 8.32195 | 454.6 |
| Probability | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01559 | 0 |
|  |  |  |  |  |  |  |  |  |  |
| Sum | 111 | 610 | 565 | 150.129 | 305.6 | 21235 | 364.41 | 4375.02 | 382.3 |
| Sum Sq. Dev. | 91.127 | 9.8387 | 50.121 | 49.6814 | 56.33 | 8E+06 | 37.115 | 378.492 | 31.46 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | CSR-EP | CSR-EWT | CSR-GD | ROE | ROA | SP | LEV | FSIZE | EPS |
| CSR-EP | 1 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| CSR-EWT | 0.0597 | 1 |  |  |  |  |  |  |  |
| p-value | 0.137 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| GD | 0.0273 | 0.0501 | 1 |  |  |  |  |  |  |
| p-value | 0.497 | 0.2127 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| ROE | 0.0418 | -0.0123 | -0.03887 | 1 |  |  |  |  |  |
| p-value | 0.2979 | 0.7605 | 0.3339 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| ROA | -0.04775 | 0.0504 | 0.06521 | -0.0396 | 1 |  |  |  |  |
| p-value | 0.2352 | 0.2093 | 0.1048 | 0.324 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| SP | 0.2761\* | 0.0330 | 0.07213\*\* | -0.1212\* | -0.00536 | 1 |  |  |  |
| p-value | 0.000 | 0.4114 | 0.0727 | 0.0025 | 0.8941 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| LEV | 0.0061 | 0.0359 | -0.01237 | -0.0178 | -0.01167 | 0.073505 | 1 |  |  |
| p-value | 0.8781 | 0.3711 | 0.7586 | 0.6581 | 0.7719 | 0.0674 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| FSIZE | 0.2279\* | 0.1189\* | 0.027492 | -0.157\* | 0.050545 | 0.3331\* | 0.1053\* | 1 |  |
| p-value | 0.000 | 0.003 | 0.4944 | 0.0001 | 0.2088 | 0.000 | 0.0087 |  |  |
|  |  |  |  |  |  |  |  |  |  |
| EPS | -0.0288 | 0.1356\* | 0.0625 | -0.0405 | -0.01397 | -0.0667\*\* | 0.017003 | 0.016993 | 1 |
| p-value | 0.4746 | 0.0007 | 0.12 | 0.3136 | 0.7285 | 0.0973 | 0.6726 | 0.6728 |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent Variable: PINDEX | | | | |
| Method: Panel Least Squares | | | | |
| Date: 01/15/20 Time: 13:18 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -160.5912 | 25.53992 | -6.287850 | 0.0000 |
| GD | -2884.330 | 456.8192 | -6.313943 | 0.0000 |
| ENV | -0.449295 | 3.613082 | -0.124352 | 0.9011 |
| EMP | 35.40896 | 11.28692 | 3.137168 | 0.0018 |
| FSIZE | 391.6528 | 55.58857 | 7.045563 | 0.0000 |
| GDRESID01 | 2887.079 | 457.3767 | 6.312258 | 0.0000 |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.822929 | Mean dependent var | | 33.89342 |
| Adjusted R-squared | 0.794781 | S.D. dependent var | | 113.7028 |
| S.E. of regression | 51.50861 | Akaike info criterion | | 10.84932 |
| Sum squared resid | 1435347. | Schwarz criterion | | 11.46477 |
| Log likelihood | -3319.688 | Hannan-Quinn criter. | | 11.08841 |
| F-statistic | 29.23577 | Durbin-Watson stat | | 1.999318 |
| Prob(F-statistic) | 0.000000 |  | |  |

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| --- | --- | --- | --- | --- |
| Dependent Variable: PINDEX | | | | |
| Method: Panel Least Squares | | | | |
| Date: 01/15/20 Time: 13:44 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 |  |  |  |  |
| Total panel (unbalanced) observations: 1540 | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -422.2478 | 153.1561 | -2.756977 | 0.0060 |
| GD | 11.60094 | 9.489490 | 1.222504 | 0.2220 |
| ENV | -229.9370 | 231.5107 | -0.993202 | 0.3211 |
| EMP | 47.89142 | 14.16678 | 3.380545 | 0.0008 |
| FSIZE | 62.22555 | 24.71985 | 2.517230 | 0.0121 |
| ENVVVRESID01 | 230.7239 | 235.2976 | 0.980562 | 0.3272 |
|  | Effects Specification | |  |  |
| Cross-section fixed (dummy variables) | |  |  |  |
| R-squared | 0.765815 | Mean dependent var |  | 33.89342 |
| Adjusted R-squared | 0.728588 | S.D. dependent var |  | 113.7028 |
| S.E. of regression | 59.23598 | Akaike info criterion |  | 11.12888 |
| Sum squared resid | 1898315. | Schwarz criterion |  | 11.74433 |
| Log likelihood | -3407.470 | Hannan-Quinn criter. |  | 11.36797 |
| F-statistic | 20.57144 | Durbin-Watson stat |  | 2.245519 |
| Prob(F-statistic) | 0.000000 |  |  |  |

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| --- | --- | --- | --- | --- |
| Dependent Variable: PINDEX | | | | |
| Method: Panel Least Squares | | | | |
| Date: 01/15/20 Time: 13:50 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 3.765465 | 10.91344 | 0.345030 | 0.7302 |
| GD | -0.661158 | 1.247861 | -0.529833 | 0.5964 |
| ENV | 1080.093 | 14.47229 | 74.63182 | 0.0000 |
| EMP | 9.703843 | 9.646106 | 1.005986 | 0.3149 |
| FSIZE | -24.64708 | 1.552820 | -15.87247 | 0.0000 |
| EMPRESID01 | -1080.628 | 15.49798 | -69.72702 | 0.0000 |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.983990 | Mean dependent var | | 33.89342 |
| Adjusted R-squared | 0.981446 | S.D. dependent var | | 113.7028 |
| S.E. of regression | 15.48800 | Akaike info criterion | | 8.445957 |
| Sum squared resid | 129774.1 | Schwarz criterion |  | 9.061405 |
| Log likelihood | -2565.031 | Hannan-Quinn criter. | | 8.685047 |
| F-statistic | 386.6446 | Durbin-Watson stat | | 1.378854 |
| Prob(F-statistic) | 0.000000 |  | |  |

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| Dependent Variable: ROE | | | | |
| Method: Panel EGLS (Cross-section weights) | | | | |
| Date: 01/15/20 Time: 22:46 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Convergence achieved after 10 total coef iterations | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.268889 | 0.017248 | 15.58993 | 0.0000 |
| GD | -0.026052 | 0.009916 | -2.627380 | 0.0089 |
| EMP | 0.027140 | 0.018555 | 1.462707 | 0.1443 |
| ENV | 0.022259 | 0.009689 | 2.297300 | 0.0221 |
| LEV | -0.004862 | 0.003542 | -1.372556 | 0.1706 |
| FSIZE | -0.004226 | 0.001165 | -3.625918 | 0.0003 |
| AR(1) | 0.127335 | 0.046656 | 2.729228 | 0.0066 |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| Weighted Statistics | | | | |
| R-squared | 0.669425 | Mean dependent var | | 0.476778 |
| Adjusted R-squared | 0.663436 | S.D. dependent var | | 0.713779 |
| S.E. of regression | 0.163248 | Sum squared resid | | 11.69925 |
| F-statistic | 161.8521 | Durbin-Watson stat | | 1.518519 |
| Prob(F-statistic) | 0.000000 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.668721 | Mean dependent var | | 0.243404 |
| Sum squared resid | 14.46294 | Durbin-Watson stat | | 2.212956 |
| Inverted AR Roots | .13 |  | |  |

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| --- | --- | --- | --- | --- |
| Dependent Variable: ROE | | | | |
| Method: Panel EGLS (Cross-section random effects) | | | | |
| Date: 01/15/20 Time: 22:47 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| Swamy and Arora estimator of component variances | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.545487 | 0.113193 | 4.819089 | 0.0000 |
| GD | -0.069266 | 0.050019 | -1.384798 | 0.1666 |
| EMP | 0.006324 | 0.055373 | 0.114217 | 0.9091 |
| ENV | 0.074143 | 0.040787 | 1.817833 | 0.0696 |
| LEV | 0.002081 | 0.023270 | 0.089448 | 0.9288 |
| FSIZE | -0.036993 | 0.013604 | -2.719308 | 0.0067 |
| Effects Specification | | | | |
|  |  |  | S.D. | Rho |
| Cross-section random |  |  | 0.212984 | 0.5593 |
| Idiosyncratic random |  |  | 0.189067 | 0.4407 |
| Weighted Statistics | | | | |
| R-squared | 0.023829 | Mean dependent var | | 0.073636 |
| Adjusted R-squared | 0.015969 | S.D. dependent var | | 0.190073 |
| S.E. of regression | 0.188575 | Sum squared resid | | 22.08313 |
| F-statistic | 3.031829 | Durbin-Watson stat | | 1.456343 |
| Prob(F-statistic) | 0.010306 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.023564 | Mean dependent var | | 0.242659 |
| Sum squared resid | 49.04980 | Durbin-Watson stat | | 0.655673 |

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| Dependent Variable: SP |  |  |  |  |
| Method: Panel GMM EGLS (Cross-section weights) | | | | |
| Date: 01/16/20 Time: 09:51 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| 2SLS instrument weighting matrix | | | | |
| Linear estimation after one-step weighting matrix | | | | |
| Instrument specification: C GD(-1) EMP(-1) ENV(-1) ENV(-2) EMP(-2) FSIZE( | | | | |
| -1) LEV(-2) GD(-2) ROA | | | | |
| Constant added to instrument list | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -127.0343 | 19.48605 | -6.519243 | 0.0000 |
| GD | 17.55134 | 9.235400 | 1.900442 | 0.0580 |
| EMP | -25.84445 | 4.416639 | -5.851611 | 0.0000 |
| ENV | 85.10883 | 12.55023 | 6.781455 | 0.0000 |
| LEV | 21.16025 | 10.28310 | 2.057770 | 0.0402 |
| FSIZE | 18.41752 | 2.389635 | 7.707253 | 0.0000 |
| Weighted Statistics | | | | |
| R-squared | 0.297668 | Mean dependent var | | 50.76321 |
| Adjusted R-squared | 0.289558 | S.D. dependent var | | 94.55234 |
| S.E. of regression | 86.74879 | Sum squared resid | | 3258478. |
| Durbin-Watson stat | 0.903334 | J-statistic |  | 5.839485 |
| Instrument rank | 10 | Prob(J-statistic) |  | 0.211461 |
| Unweighted Statistics | | | | |
| R-squared | 0.110803 | Mean dependent var | | 37.14376 |
| Sum squared resid | 6325222. | Durbin-Watson stat | | 0.722407 |

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| --- | --- | --- | --- | --- |
| Dependent Variable: ROE | | | | |
| Method: Panel GMM EGLS (Cross-section weights) | | | | |
| Date: 01/16/20 Time: 10:35 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| 2SLS instrument weighting matrix | | | | |
| Linear estimation after one-step weighting matrix | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| WARNING: estimated coefficient covariance matrix is of reduced rank | | | | |
| Instrument specification: C ENV(-1) FSIZE(-1) GD(-1) SP(-1) LEV(-3) EMP( | | | | |
| -3) ROE(-4) |  |  |  |  |
| Constant added to instrument list | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.332001 | 0.113910 | 2.914590 | 0.0039 |
| GD | 0.225725 | 0.028214 | 8.000411 | 0.0000 |
| EMP | 0.231787 | 0.118974 | 1.948216 | 0.0524 |
| ENV | 0.106112 | 0.032639 | 3.251077 | 0.0013 |
| LEV | 0.048109 | 0.043359 | 1.109549 | 0.2682 |
| FSIZE | -0.083714 | 0.008412 | -9.951330 | 0.0000 |
| Weighted Statistics | | | | |
| R-squared | 0.137189 | Mean dependent var | | 0.332648 |
| Adjusted R-squared | 0.121502 | S.D. dependent var | | 0.402325 |
| S.E. of regression | 0.271289 | Sum squared resid | | 20.23937 |
| Durbin-Watson stat | 0.521193 | J-statistic |  | 14.44275 |
| Instrument rank | 8 | Prob(J-statistic) |  | 0.000731 |
| Unweighted Statistics | | | | |
| R-squared | -0.077986 | Mean dependent var | | 0.234252 |
| Sum squared resid | 20.82271 | Durbin-Watson stat | | 0.338015 |

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| --- | --- | --- | --- | --- |
| Dependent Variable: ROA | | | | |
| Method: Panel GMM EGLS (Cross-section weights) | | | | |
| Date: 01/16/20 Time: 10:46 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| 2SLS instrument weighting matrix | | | | |
| Linear estimation after one-step weighting matrix | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| WARNING: estimated coefficient covariance matrix is of reduced rank | | | | |
| Instrument specification: C ENV(-1) FSIZE(-1) GD(-1) LEV(-1) EMP(-1) ROE( | | | | |
| -1) ROA(-5) |  |  |  |  |
| Constant added to instrument list | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -0.805870 | 0.092329 | -8.728213 | 0.0000 |
| GD | 0.146283 | 0.011698 | 12.50524 | 0.0000 |
| EMP | 0.662532 | 0.047658 | 13.90190 | 0.0000 |
| ENV | -0.276973 | 0.041587 | -6.660158 | 0.0000 |
| LEV | -0.002606 | 0.033368 | -0.078104 | 0.9378 |
| FSIZE | 0.075803 | 0.018677 | 4.058655 | 0.0001 |
| Weighted Statistics | | | | |
| R-squared | 0.35813 | Mean dependent var | | 0.713547 |
| Adjusted R-squared | 0.11216 | S.D. dependent var | | 0.709412 |
| S.E. of regression | 0.285003 | Sum squared resid | | 15.92043 |
| Durbin-Watson stat | 1.071711 | J-statistic |  | 3.034482 |
| Instrument rank | 8 | Prob(J-statistic) |  | 0.219316 |
| Unweighted Statistics | | | | |
| R-squared | -0.196231 | Mean dependent var | | 0.451604 |
| Sum squared resid | 16.57500 | Durbin-Watson stat | | 0.924148 |

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| Dependent Variable: EPS | | | | |
| Method: Panel GMM EGLS (Cross-section weights) | | | | |
| Date: 01/16/20 Time: 10:48 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| 2SLS instrument weighting matrix | | | | |
| Linear estimation after one-step weighting matrix | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| WARNING: estimated coefficient covariance matrix is of reduced rank | | | | |
| Instrument specification: C ENV(-1) FSIZE(-1) GD(-1) LEV(-1) EMP(-1) ROE( | | | | |
| -1) ROA(-5) |  |  |  |  |
| Constant added to instrument list | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -0.131970 | 0.079106 | -1.668275 | 0.0969 |
| GD | 0.041788 | 0.037943 | 1.101348 | 0.2721 |
| EMP | 0.452694 | 0.013614 | 33.25323 | 0.0000 |
| ENV | -0.152947 | 0.010865 | -14.07747 | 0.0000 |
| LEV | 0.152707 | 0.049941 | 3.057723 | 0.0025 |
| FSIZE | 0.030461 | 0.006332 | 4.810690 | 0.0000 |
| Weighted Statistics | | | | |
| R-squared | 0.715956 | Mean dependent var | | 1.112235 |
| Adjusted R-squared | 0.708710 | S.D. dependent var | | 1.428501 |
| S.E. of regression | 0.201739 | Sum squared resid | | 7.976960 |
| Durbin-Watson stat | 1.184634 | J-statistic |  | 4.284690 |
| Instrument rank | 8 | Prob(J-statistic) |  | 0.117379 |
| Unweighted Statistics | | | | |
| R-squared | -0.104249 | Mean dependent var | | 0.619505 |
| Sum squared resid | 7.940822 | Durbin-Watson stat | | 0.681359 |

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| Dependent Variable: EPS | | | | |
| Method: Panel EGLS (Cross-section weights) | | | | |
| Date: 01/16/20 Time: 10:53 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| Iterate coefficients after one-step weighting matrix | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Convergence achieved after 11 total coef iterations | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.444791 | 0.033377 | 13.32619 | 0.0000 |
| GD | 0.001752 | 0.020526 | 0.085371 | 0.9320 |
| EMP | 0.139080 | 0.043446 | 3.201207 | 0.0015 |
| ENV | -0.030269 | 0.009959 | -3.039204 | 0.0025 |
| LEV | 0.013711 | 0.007573 | 1.810672 | 0.0709 |
| FSIZE | 0.004476 | 0.003481 | 1.286027 | 0.1991 |
| AR(1) | 0.272612 | 0.070348 | 3.875168 | 0.0001 |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| Weighted Statistics | | | | |
| R-squared | 0.659516 | Mean dependent var | | 1.040337 |
| Adjusted R-squared | 0.631869 | S.D. dependent var | | 0.657645 |
| S.E. of regression | 0.146365 | Sum squared resid | | 9.361702 |
| F-statistic | 31.08922 | Durbin-Watson stat | | 2.017411 |
| Prob(F-statistic) | 0.000000 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.609718 | Mean dependent var | | 0.616240 |
| Sum squared resid | 9.434330 | Durbin-Watson stat | | 1.850786 |
| Inverted AR Roots | .27 |  | |  |

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| Dependent Variable: EPS | | | | |
| Method: Panel EGLS (Cross-section random effects) | | | | |
| Date: 01/16/20 Time: 10:54 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| Swamy and Arora estimator of component variances | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.411392 | 0.074206 | 5.543912 | 0.0000 |
| GD | 0.011844 | 0.026796 | 0.441996 | 0.6586 |
| EMP | 0.184320 | 0.020841 | 8.844004 | 0.0000 |
| ENV | -0.034933 | 0.022274 | -1.568319 | 0.1173 |
| LEV | 0.002331 | 0.021060 | 0.110666 | 0.9119 |
| FSIZE | 0.002446 | 0.009463 | 0.258482 | 0.7961 |
| Effects Specification | | | | |
|  |  |  | S.D. | Rho |
| Cross-section random |  |  | 0.146092 | 0.4204 |
| Idiosyncratic random |  |  | 0.171541 | 0.5796 |
| Weighted Statistics | | | | |
| R-squared | 0.016595 | Mean dependent var | | 0.239270 |
| Adjusted R-squared | 0.008665 | S.D. dependent var | | 0.172210 |
| S.E. of regression | 0.171370 | Sum squared resid | | 18.20790 |
| F-statistic | 2.092529 | Durbin-Watson stat | | 1.077324 |
| Prob(F-statistic) | 0.064653 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.025689 | Mean dependent var | | 0.615288 |
| Sum squared resid | 30.98115 | Durbin-Watson stat | | 0.633153 |

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| Dependent Variable: ROA | | | | |
| Method: Panel EGLS (Cross-section weights) | | | | |
| Date: 01/16/20 Time: 10:58 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| Iterate coefficients after one-step weighting matrix | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Convergence achieved after 11 total coef iterations | | | | |
| WARNING: estimated coefficient covariance matrix is of reduced rank | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.415924 | 0.072410 | 5.744013 | 0.0000 |
| GD | 0.018920 | 0.015223 | 1.242885 | 0.2145 |
| EMP | -0.077564 | 0.052467 | -1.478333 | 0.1399 |
| ENV | 0.025159 | 0.011196 | 2.247102 | 0.0251 |
| LEV | -0.010484 | 0.006481 | -1.617736 | 0.1063 |
| FSIZE | 0.007475 | 0.007098 | 1.053152 | 0.2928 |
| AR(1) | 0.818398 | 0.022068 | 37.08579 | 0.0000 |
| Weighted Statistics | | | | |
| R-squared | 0.693671 | Mean dependent var | | 0.809289 |
| Adjusted R-squared | 0.690116 | S.D. dependent var | | 0.556274 |
| S.E. of regression | 0.210066 | Sum squared resid | | 22.81404 |
| F-statistic | 195.1214 | Durbin-Watson stat | | 2.111625 |
| Prob(F-statistic) | 0.000000 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.423584 | Mean dependent var | | 0.479332 |
| Sum squared resid | 26.68396 | Durbin-Watson stat | | 2.774504 |
| Inverted AR Roots | .82 |  | |  |

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| Dependent Variable: ROA | | | | |
| Method: Panel EGLS (Cross-section random effects) | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| Swamy and Arora estimator of component variances | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.456626 | 0.149436 | 3.055659 | 0.0023 |
| GD | 0.045355 | 0.032798 | 1.382852 | 0.1672 |
| EMP | 0.031996 | 0.100430 | 0.318586 | 0.7501 |
| ENV | 0.003029 | 0.010698 | 0.283118 | 0.7772 |
| LEV | -0.016028 | 0.027070 | -0.592094 | 0.5540 |
| FSIZE | -0.003901 | 0.017769 | -0.219554 | 0.8263 |
| Effects Specification | | | | |
|  |  |  | S.D. | Rho |
| Cross-section random |  |  | 0.214858 | 0.5011 |
| Idiosyncratic random |  |  | 0.214365 | 0.4989 |
| Weighted Statistics | | | | |
| R-squared | 0.002945 | Mean dependent var | | 0.165935 |
| Adjusted R-squared | -0.005096 | S.D. dependent var | | 0.214366 |
| S.E. of regression | 0.214482 | Sum squared resid | | 28.52157 |
| F-statistic | 0.366272 | Durbin-Watson stat | | 1.316002 |
| Prob(F-statistic) | 0.871726 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.003606 | Mean dependent var | | 0.490059 |
| Sum squared resid | 56.67454 | Durbin-Watson stat | | 0.662281 |

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| Dependent Variable: ROA | | | | |
| Method: Panel EGLS (Cross-section random effects) | | | | |
| Date: 01/16/20 Time: 10:59 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| Swamy and Arora estimator of component variances | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.456626 | 0.149436 | 3.055659 | 0.0023 |
| GD | 0.045355 | 0.032798 | 1.382852 | 0.1672 |
| EMP | 0.031996 | 0.100430 | 0.318586 | 0.7501 |
| ENV | 0.003029 | 0.010698 | 0.283118 | 0.7772 |
| LEV | -0.016028 | 0.027070 | -0.592094 | 0.5540 |
| FSIZE | -0.003901 | 0.017769 | -0.219554 | 0.8263 |
| Effects Specification | | | | |
|  |  |  | S.D. | Rho |
| Cross-section random |  |  | 0.214858 | 0.5011 |
| Idiosyncratic random |  |  | 0.214365 | 0.4989 |
| Weighted Statistics | | | | |
| R-squared | 0.002945 | Mean dependent var | | 0.165935 |
| Adjusted R-squared | -0.005096 | S.D. dependent var | | 0.214366 |
| S.E. of regression | 0.214482 | Sum squared resid | | 28.52157 |
| F-statistic | 0.366272 | Durbin-Watson stat | | 1.316002 |
| Prob(F-statistic) | 0.871726 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.003606 | Mean dependent var | | 0.490059 |
| Sum squared resid | 56.67454 | Durbin-Watson stat | | 0.662281 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent Variable: ROE | | | | |
| Method: Panel EGLS (Cross-section weights) | | | | |
| Date: 01/16/20 Time: 11:07 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| Iterate coefficients after one-step weighting matrix | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Convergence achieved after 10 total coef iterations | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.268889 | 0.017248 | 15.58993 | 0.0000 |
| GD | -0.026052 | 0.009916 | -2.627380 | 0.0089 |
| EMP | 0.027140 | 0.018555 | 1.462707 | 0.1443 |
| ENV | 0.022259 | 0.009689 | 2.297300 | 0.0221 |
| LEV | -0.004862 | 0.003542 | -1.372556 | 0.1706 |
| FSIZE | -0.004226 | 0.001165 | -3.625918 | 0.0003 |
| AR(1) | 0.127335 | 0.046656 | 2.729228 | 0.0066 |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| Weighted Statistics | | | | |
| R-squared | 0.969425 | Mean dependent var | | 0.476778 |
| Adjusted R-squared | 0.963436 | S.D. dependent var | | 0.713779 |
| S.E. of regression | 0.163248 | Sum squared resid | | 11.69925 |
| F-statistic | 161.8521 | Durbin-Watson stat | | 1.518519 |
| Prob(F-statistic) | 0.000000 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.668721 | Mean dependent var | | 0.243404 |
| Sum squared resid | 14.46294 | Durbin-Watson stat | | 2.212956 |
| Inverted AR Roots | .13 |  | |  |

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| --- | --- | --- | --- | --- |
| Dependent Variable: ROE | | | | |
| Method: Panel EGLS (Cross-section random effects) | | | | |
| Date: 01/16/20 Time: 11:07 | | | | |
| Sample: 1997 2018 |  |  |  |  |
| Periods included: 22 |  |  |  |  |
| Cross-sections included: 70 | | | | |
| Total panel (unbalanced) observations: 1540 | | | | |
| Swamy and Arora estimator of component variances | | | | |
| White cross-section standard errors & covariance (d.f. corrected) | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.545487 | 0.113193 | 4.819089 | 0.0000 |
| GD | -0.069266 | 0.050019 | -1.384798 | 0.1666 |
| EMP | 0.006324 | 0.055373 | 0.114217 | 0.9091 |
| ENV | 0.074143 | 0.040787 | 1.817833 | 0.0696 |
| LEV | 0.002081 | 0.023270 | 0.089448 | 0.9288 |
| FSIZE | -0.036993 | 0.013604 | -2.719308 | 0.0067 |
| Effects Specification | | | | |
|  |  |  | S.D. | Rho |
| Cross-section random |  |  | 0.212984 | 0.5593 |
| Idiosyncratic random |  |  | 0.189067 | 0.4407 |
| Weighted Statistics | | | | |
| R-squared | 0.023829 | Mean dependent var | | 0.073636 |
| Adjusted R-squared | 0.015969 | S.D. dependent var | | 0.190073 |
| S.E. of regression | 0.188575 | Sum squared resid | | 22.08313 |
| F-statistic | 3.031829 | Durbin-Watson stat | | 1.456343 |
| Prob(F-statistic) | 0.010306 |  |  |  |
| Unweighted Statistics | | | | |
| R-squared | 0.023564 | Mean dependent var | | 0.242659 |
| Sum squared resid | 49.04980 | Durbin-Watson stat | | 0.655673 |

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| Quantile Process Estimates |  |  |  |  |  |
| Equation: UNTITLED |  |  |  |  |  |
| Specification: SP C ENV EMP GD LEV FSIZE | | | | | |
| Estimated equation quantile tau = 0.5 | | | | | |
| Number of process quantiles: 10 | | | | | |
| Display all coefficients |  |  |  |  |  |
|  | Quantile | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.100 | -4.171142 | 3.654235 | -1.141454 | 0.2541 |
|  | 0.200 | -12.35340 | 4.703639 | -2.626349 | 0.0088 |
|  | 0.300 | -22.55272 | 6.441310 | -3.501263 | 0.0005 |
|  | 0.400 | -37.28340 | 7.727465 | -4.824791 | 0.0000 |
|  | 0.500 | -55.98262 | 9.933150 | -5.635939 | 0.0000 |
|  | 0.600 | -89.76468 | 17.17229 | -5.227298 | 0.0000 |
|  | 0.700 | -120.5384 | 16.96851 | -7.103652 | 0.0000 |
|  | 0.800 | -156.1496 | 20.75613 | -7.523061 | 0.0000 |
|  | 0.900 | -287.6430 | 40.70625 | -7.066311 | 0.0000 |
| ENV | 0.100 | 0.790763 | 1.060416 | 0.745711 | 0.4561 |
|  | 0.200 | 2.673669 | 1.266307 | 2.111391 | 0.0351 |
|  | 0.300 | 5.498456 | 1.863877 | 2.950010 | 0.0033 |
|  | 0.400 | 7.514402 | 2.011697 | 3.735355 | 0.0002 |
|  | 0.500 | 12.85260 | 3.892944 | 3.301513 | 0.0010 |
|  | 0.600 | 20.44331 | 7.578078 | 2.697690 | 0.0072 |
|  | 0.700 | 28.95340 | 9.569926 | 3.025458 | 0.0026 |
|  | 0.800 | 31.26331 | 14.08529 | 2.219571 | 0.0268 |
|  | 0.900 | 36.84152 | 15.71734 | 2.344004 | 0.0194 |
| EMP | 0.100 | -0.039538 | 1.449611 | -0.027275 | 0.9782 |
|  | 0.200 | -2.803231 | 1.670395 | -1.678185 | 0.0938 |
|  | 0.300 | -4.097953 | 1.769412 | -2.315997 | 0.0209 |
|  | 0.400 | -4.942902 | 2.229272 | -2.217272 | 0.0270 |
|  | 0.500 | -6.475260 | 2.565449 | -2.524026 | 0.0118 |
|  | 0.600 | -10.62585 | 5.033470 | -2.111039 | 0.0352 |
|  | 0.700 | -14.57391 | 4.854778 | -3.001973 | 0.0028 |
|  | 0.800 | -12.14176 | 5.518395 | -2.200235 | 0.0282 |
|  | 0.900 | -14.00827 | 6.824406 | -2.052672 | 0.0405 |
| GD | 0.100 | 0.463026 | 0.705142 | 0.656643 | 0.5117 |
|  | 0.200 | 0.988154 | 0.916615 | 1.078047 | 0.2814 |
|  | 0.300 | 1.419240 | 1.047799 | 1.354497 | 0.1761 |
|  | 0.400 | 1.973681 | 1.295751 | 1.523194 | 0.1282 |
|  | 0.500 | 3.405938 | 1.746143 | 1.950549 | 0.0516 |
|  | 0.600 | 6.385050 | 2.537685 | 2.516092 | 0.0121 |
|  | 0.700 | 8.187853 | 3.382096 | 2.420941 | 0.0158 |
|  | 0.800 | 12.03745 | 4.415312 | 2.726297 | 0.0066 |
|  | 0.900 | 32.80725 | 6.303867 | 5.204306 | 0.0000 |
| LEV | 0.100 | 0.005660 | 0.762923 | 0.007418 | 0.9941 |
|  | 0.200 | -0.528997 | 0.992280 | -0.533113 | 0.5941 |
|  | 0.300 | -0.104167 | 1.059326 | -0.098333 | 0.9217 |
|  | 0.400 | -1.486534 | 1.384364 | -1.073803 | 0.2833 |
|  | 0.500 | -2.736377 | 1.712342 | -1.598032 | 0.1105 |
|  | 0.600 | -1.050323 | 2.362078 | -0.444660 | 0.6567 |
|  | 0.700 | -0.295322 | 3.111706 | -0.094907 | 0.9244 |
|  | 0.800 | 7.637149 | 15.13753 | 0.504518 | 0.6141 |
|  | 0.900 | 34.67851 | 13.63035 | 2.544213 | 0.0112 |
| FSIZE | 0.100 | 0.633505 | 0.563363 | 1.124505 | 0.2612 |
|  | 0.200 | 2.271577 | 0.725108 | 3.132741 | 0.0018 |
|  | 0.300 | 4.055147 | 0.998349 | 4.061853 | 0.0001 |
|  | 0.400 | 6.596904 | 1.205117 | 5.474076 | 0.0000 |
|  | 0.500 | 9.753827 | 1.568201 | 6.219755 | 0.0000 |
|  | 0.600 | 15.28499 | 2.866646 | 5.332012 | 0.0000 |
|  | 0.700 | 20.78613 | 2.716496 | 7.651818 | 0.0000 |
|  | 0.800 | 26.25933 | 3.855296 | 6.811235 | 0.0000 |
|  | 0.900 | 45.29554 | 6.731320 | 6.729073 | 0.0000 |

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| Quantile Process Estimates |  |  |  |  |  |
| Equation: UNTITLED |  |  |  |  |  |
| Specification: ROE C ENV EMP GD LEV FSIZE | | | | | |
| Estimated equation quantile tau = 0.5 | | | | | |
| Number of process quantiles: 10 | | | | | |
| Display all coefficients |  |  |  |  |  |
|  | Quantile | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.100 | 0.001473 | 0.055984 | 0.026309 | 0.9790 |
|  | 0.200 | 0.013331 | 0.074827 | 0.178155 | 0.8587 |
|  | 0.300 | 0.047358 | 0.089860 | 0.527019 | 0.5984 |
|  | 0.400 | 0.154592 | 0.104885 | 1.473920 | 0.1410 |
|  | 0.500 | 0.586947 | 0.181413 | 3.235418 | 0.0013 |
|  | 0.600 | 1.298439 | 0.211269 | 6.145900 | 0.0000 |
|  | 0.700 | 1.476538 | 0.170457 | 8.662215 | 0.0000 |
|  | 0.800 | 1.243216 | 0.187354 | 6.635660 | 0.0000 |
|  | 0.900 | 1.139201 | 0.263177 | 4.328642 | 0.0000 |
| ENV | 0.100 | 0.000149 | 0.013447 | 0.011084 | 0.9912 |
|  | 0.200 | -0.001100 | 0.018076 | -0.060866 | 0.9515 |
|  | 0.300 | 0.002217 | 0.021750 | 0.101924 | 0.9188 |
|  | 0.400 | -0.001432 | 0.025279 | -0.056636 | 0.9549 |
|  | 0.500 | 0.024300 | 0.035921 | 0.676499 | 0.4990 |
|  | 0.600 | 0.049922 | 0.043829 | 1.139026 | 0.2551 |
|  | 0.700 | 0.042747 | 0.038426 | 1.112450 | 0.2664 |
|  | 0.800 | 0.037938 | 0.046364 | 0.818283 | 0.4135 |
|  | 0.900 | 0.108476 | 0.077878 | 1.392891 | 0.1642 |
| EMP | 0.100 | 0.000307 | 0.040813 | 0.007527 | 0.9940 |
|  | 0.200 | 0.003814 | 0.055310 | 0.068949 | 0.9451 |
|  | 0.300 | 0.011034 | 0.067638 | 0.163126 | 0.8705 |
|  | 0.400 | 0.055458 | 0.077245 | 0.717956 | 0.4731 |
|  | 0.500 | -0.069898 | 0.150602 | -0.464122 | 0.6427 |
|  | 0.600 | -0.115949 | 0.127369 | -0.910339 | 0.3630 |
|  | 0.700 | -0.070929 | 0.099006 | -0.716413 | 0.4740 |
|  | 0.800 | -0.026141 | 0.076827 | -0.340258 | 0.7338 |
|  | 0.900 | -0.007405 | 0.077271 | -0.095831 | 0.9237 |
| GD | 0.100 | -0.000594 | 0.021596 | -0.027485 | 0.9781 |
|  | 0.200 | -0.008180 | 0.028200 | -0.290063 | 0.7719 |
|  | 0.300 | -0.027545 | 0.033327 | -0.826494 | 0.4088 |
|  | 0.400 | -0.072562 | 0.040898 | -1.774202 | 0.0765 |
|  | 0.500 | -0.093951 | 0.049405 | -1.901655 | 0.0577 |
|  | 0.600 | -0.002486 | 0.051491 | -0.048283 | 0.9615 |
|  | 0.700 | 0.030228 | 0.043875 | 0.688944 | 0.4911 |
|  | 0.800 | 0.015698 | 0.051618 | 0.304114 | 0.7611 |
|  | 0.900 | 0.126026 | 0.055746 | 2.260728 | 0.0241 |
| LEV | 0.100 | 0.001148 | 0.034141 | 0.033640 | 0.9732 |
|  | 0.200 | 0.013824 | 0.045228 | 0.305660 | 0.7600 |
|  | 0.300 | 0.026957 | 0.053770 | 0.501341 | 0.6163 |
|  | 0.400 | 0.094190 | 0.056266 | 1.674007 | 0.0946 |
|  | 0.500 | 0.116690 | 0.060419 | 1.931360 | 0.0539 |
|  | 0.600 | 0.066988 | 0.055558 | 1.205732 | 0.2284 |
|  | 0.700 | 0.001524 | 0.043569 | 0.034973 | 0.9721 |
|  | 0.800 | 0.004088 | 0.045164 | 0.090524 | 0.9279 |
|  | 0.900 | -0.049097 | 0.059015 | -0.831927 | 0.4058 |
| FSIZE | 0.100 | -0.000191 | 0.006429 | -0.029646 | 0.9764 |
|  | 0.200 | -0.001818 | 0.008543 | -0.212764 | 0.8316 |
|  | 0.300 | -0.005295 | 0.010162 | -0.521035 | 0.6025 |
|  | 0.400 | -0.020507 | 0.011945 | -1.716740 | 0.0865 |
|  | 0.500 | -0.052711 | 0.021015 | -2.508322 | 0.0124 |
|  | 0.600 | -0.133342 | 0.021282 | -6.265492 | 0.0000 |
|  | 0.700 | -0.150271 | 0.018162 | -8.273778 | 0.0000 |
|  | 0.800 | -0.109370 | 0.023322 | -4.689628 | 0.0000 |
|  | 0.900 | -0.089681 | 0.032697 | -2.742757 | 0.0063 |

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| Quantile Process Estimates | | | | | |
| Equation: UNTITLED |  |  |  |  |  |
| Specification: ROA C ENV EMP GD LEV FSIZE | | | | | |
| Estimated equation quantile tau = 0.5 | | | | | |
| Number of process quantiles: 10 | | | | | |
| Display all coefficients |  |  |  |  |  |
|  | Quantile | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.100 | -0.125199 | 0.120916 | -1.035421 | 0.3009 |
|  | 0.200 | -0.022421 | 0.107056 | -0.209434 | 0.8342 |
|  | 0.300 | -0.036622 | 0.123677 | -0.296108 | 0.7672 |
|  | 0.400 | -0.215480 | 0.134011 | -1.607926 | 0.1084 |
|  | 0.500 | -0.258518 | 0.135627 | -1.906095 | 0.0571 |
|  | 0.600 | 0.005108 | 0.341146 | 0.014972 | 0.9881 |
|  | 0.700 | 0.201521 | 0.382547 | 0.526787 | 0.5985 |
|  | 0.800 | 0.559000 | 0.182197 | 3.068103 | 0.0022 |
|  | 0.900 | 0.688269 | 0.190686 | 3.609428 | 0.0003 |
| ENV | 0.100 | 0.002317 | 0.049555 | 0.046748 | 0.9627 |
|  | 0.200 | -0.001482 | 0.034154 | -0.043382 | 0.9654 |
|  | 0.300 | -0.018311 | 0.036660 | -0.499467 | 0.6176 |
|  | 0.400 | 0.003780 | 0.037620 | 0.100488 | 0.9200 |
|  | 0.500 | -0.010307 | 0.034151 | -0.301809 | 0.7629 |
|  | 0.600 | -0.004668 | 0.035928 | -0.129921 | 0.8967 |
|  | 0.700 | -0.058940 | 0.035805 | -1.646136 | 0.1002 |
|  | 0.800 | -0.104780 | 0.038081 | -2.751530 | 0.0061 |
|  | 0.900 | -0.076448 | 0.045216 | -1.690738 | 0.0914 |
| EMP | 0.100 | 0.026075 | 0.038978 | 0.668963 | 0.5038 |
|  | 0.200 | 0.167927 | 0.054853 | 3.061374 | 0.0023 |
|  | 0.300 | 0.270914 | 0.062593 | 4.328193 | 0.0000 |
|  | 0.400 | 0.300994 | 0.062217 | 4.837834 | 0.0000 |
|  | 0.500 | 0.355459 | 0.063859 | 5.566350 | 0.0000 |
|  | 0.600 | 0.231001 | 0.311080 | 0.742578 | 0.4580 |
|  | 0.700 | 0.145380 | 0.358316 | 0.405732 | 0.6851 |
|  | 0.800 | -0.084980 | 0.143125 | -0.593749 | 0.5529 |
|  | 0.900 | 0.043951 | 0.121723 | 0.361072 | 0.7182 |
| GD | 0.100 | 0.034156 | 0.040903 | 0.835041 | 0.4040 |
|  | 0.200 | 0.052360 | 0.035339 | 1.481618 | 0.1390 |
|  | 0.300 | 0.092351 | 0.038802 | 2.380067 | 0.0176 |
|  | 0.400 | 0.118761 | 0.041556 | 2.857862 | 0.0044 |
|  | 0.500 | 0.138936 | 0.045385 | 3.061264 | 0.0023 |
|  | 0.600 | 0.138099 | 0.062145 | 2.222223 | 0.0266 |
|  | 0.700 | 0.082367 | 0.085284 | 0.965805 | 0.3345 |
|  | 0.800 | 0.072832 | 0.085589 | 0.850953 | 0.3951 |
|  | 0.900 | 0.047842 | 0.116796 | 0.409623 | 0.6822 |
| LEV | 0.100 | -0.019398 | 0.058169 | -0.333482 | 0.7389 |
|  | 0.200 | -0.020454 | 0.045996 | -0.444679 | 0.6567 |
|  | 0.300 | -0.074034 | 0.046428 | -1.594594 | 0.1113 |
|  | 0.400 | -0.088464 | 0.048468 | -1.825206 | 0.0685 |
|  | 0.500 | -0.107841 | 0.051076 | -2.111373 | 0.0351 |
|  | 0.600 | -0.040173 | 0.058206 | -0.690190 | 0.4903 |
|  | 0.700 | -0.043670 | 0.056177 | -0.777363 | 0.4372 |
|  | 0.800 | -0.018870 | 0.110715 | -0.170438 | 0.8647 |
|  | 0.900 | 0.060922 | 0.132256 | 0.460636 | 0.6452 |
| FSIZE | 0.100 | 0.030768 | 0.018935 | 1.624904 | 0.1047 |
|  | 0.200 | 0.008674 | 0.017051 | 0.508737 | 0.6111 |
|  | 0.300 | 0.007317 | 0.018610 | 0.393145 | 0.6943 |
|  | 0.400 | 0.036864 | 0.018410 | 2.002347 | 0.0457 |
|  | 0.500 | 0.043702 | 0.017822 | 2.452104 | 0.0145 |
|  | 0.600 | 0.028813 | 0.020148 | 1.430084 | 0.1532 |
|  | 0.700 | 0.033918 | 0.020850 | 1.626722 | 0.1043 |
|  | 0.800 | 0.029064 | 0.026601 | 1.092587 | 0.2750 |
|  | 0.900 | 0.005114 | 0.031908 | 0.160261 | 0.8727 |

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| Quantile Process Estimates | | | | | |
| Equation: UNTITLED |  |  |  |  |  |
| Specification: EPS C ENV EMP GD LEV FSIZE | | | | | |
| Estimated equation quantile tau = 0.5 | | | | | |
| Number of process quantiles: 10 | | | | | |
| Display all coefficients |  |  |  |  |  |
|  | Quantile | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.100 | -0.051178 | 0.100352 | -0.509988 | 0.6102 |
|  | 0.200 | 0.135159 | 0.113631 | 1.189456 | 0.2347 |
|  | 0.300 | 0.278781 | 0.102786 | 2.712242 | 0.0069 |
|  | 0.400 | 0.289074 | 0.090892 | 3.180404 | 0.0015 |
|  | 0.500 | 0.322900 | 0.094659 | 3.411196 | 0.0007 |
|  | 0.600 | 0.352905 | 0.102660 | 3.437619 | 0.0006 |
|  | 0.700 | 0.354116 | 0.116690 | 3.034667 | 0.0025 |
|  | 0.800 | 0.430114 | 0.177472 | 2.423560 | 0.0157 |
|  | 0.900 | 0.605496 | 0.171684 | 3.526815 | 0.0005 |
| ENV | 0.100 | -0.010249 | 0.027767 | -0.369104 | 0.7122 |
|  | 0.200 | -0.008197 | 0.027261 | -0.300679 | 0.7638 |
|  | 0.300 | 0.013511 | 0.031842 | 0.424308 | 0.6715 |
|  | 0.400 | -0.005424 | 0.031226 | -0.173690 | 0.8622 |
|  | 0.500 | -0.000450 | 0.030542 | -0.014740 | 0.9882 |
|  | 0.600 | -0.019097 | 0.028614 | -0.667390 | 0.5048 |
|  | 0.700 | -0.025003 | 0.029254 | -0.854686 | 0.3931 |
|  | 0.800 | -0.044029 | 0.029332 | -1.501049 | 0.1339 |
|  | 0.900 | -0.044233 | 0.039791 | -1.111635 | 0.2667 |
| EMP | 0.100 | 0.145709 | 0.048812 | 2.985100 | 0.0029 |
|  | 0.200 | 0.213599 | 0.054567 | 3.914465 | 0.0001 |
|  | 0.300 | 0.271881 | 0.057956 | 4.691145 | 0.0000 |
|  | 0.400 | 0.290221 | 0.054485 | 5.326669 | 0.0000 |
|  | 0.500 | 0.274024 | 0.067630 | 4.051825 | 0.0001 |
|  | 0.600 | 0.299803 | 0.069403 | 4.319754 | 0.0000 |
|  | 0.700 | 0.318182 | 0.077098 | 4.126977 | 0.0000 |
|  | 0.800 | 0.259774 | 0.112252 | 2.314203 | 0.0210 |
|  | 0.900 | 0.274702 | 0.060203 | 4.562898 | 0.0000 |
| GD | 0.100 | 0.065051 | 0.034208 | 1.901641 | 0.0577 |
|  | 0.200 | 0.055904 | 0.034585 | 1.616425 | 0.1065 |
|  | 0.300 | 0.054228 | 0.037132 | 1.460410 | 0.1447 |
|  | 0.400 | 0.046156 | 0.044775 | 1.030849 | 0.3030 |
|  | 0.500 | 0.043709 | 0.047437 | 0.921406 | 0.3572 |
|  | 0.600 | 0.027207 | 0.038753 | 0.702067 | 0.4829 |
|  | 0.700 | 0.027846 | 0.036766 | 0.757395 | 0.4491 |
|  | 0.800 | 0.054903 | 0.041295 | 1.329523 | 0.1842 |
|  | 0.900 | 0.029582 | 0.064199 | 0.460796 | 0.6451 |
| LEV | 0.100 | 0.055136 | 0.047489 | 1.161029 | 0.2461 |
|  | 0.200 | 0.021773 | 0.048493 | 0.448979 | 0.6536 |
|  | 0.300 | 0.036389 | 0.033500 | 1.086258 | 0.2778 |
|  | 0.400 | 0.016591 | 0.036997 | 0.448440 | 0.6540 |
|  | 0.500 | 0.047761 | 0.052405 | 0.911365 | 0.3625 |
|  | 0.600 | 0.063506 | 0.047969 | 1.323895 | 0.1860 |
|  | 0.700 | 0.011096 | 0.044368 | 0.250093 | 0.8026 |
|  | 0.800 | -0.015504 | 0.038839 | -0.399185 | 0.6899 |
|  | 0.900 | 0.061009 | 0.101721 | 0.599762 | 0.5489 |
| FSIZE | 0.100 | 0.025789 | 0.012368 | 2.085108 | 0.0375 |
|  | 0.200 | 0.003586 | 0.014721 | 0.243594 | 0.8076 |
|  | 0.300 | -0.018683 | 0.013866 | -1.347390 | 0.1783 |
|  | 0.400 | -0.011258 | 0.014100 | -0.798451 | 0.4249 |
|  | 0.500 | -0.008455 | 0.016007 | -0.528224 | 0.5975 |
|  | 0.600 | -0.006976 | 0.016645 | -0.419103 | 0.6753 |
|  | 0.700 | 0.002941 | 0.017949 | 0.163866 | 0.8699 |
|  | 0.800 | 0.008958 | 0.017794 | 0.503427 | 0.6148 |
|  | 0.900 | -0.007592 | 0.021618 | -0.351203 | 0.7256 |

**APPENDIX III STUDY SAMPLE**

1. A.G. Leventis Nigeria,
2. ABC Transport,
3. Academy Press,
4. Africa Prudential Registrars,
5. African Paints (Nigeria),
6. Afrik Pharmaceuticals,
7. Afromedia, Capital Hotel,
8. Aluminum Extrusion Industries,
9. Anino International,
10. Berger Paints,
11. Beta Glass Co,
12. Cadbury Nigeria,
13. Capital Oil,
14. Cascon Allied Industries,
15. Caverton Offshore Support Group,
16. Cement Company of Northern Nigeria,
17. Champion Breweries,
18. Computer Warehouse Group,
19. Conoil,
20. Courteville Business Solutions,
21. Daar Communications,
22. Dangote Cement,
23. Dangote Flour Mills,
24. Dangote Sugar Refinery,
25. DN Tyre & Rubber,
26. Ekocorp,
27. Eterna,
28. E-Tranzact International,
29. Evans Medical,
30. Fidson Healthcare,
31. First Aluminum Nigeria,
32. Flour Mills of Nigeria,
33. Forte Oil,
34. FTN Cocoa Processor,
35. GlaxoSmithKline Nigeria,
36. Global Spectrum Energy Services,
37. Guinness Nigeria,
38. Honeywell Flour Mill,
39. Ikeja Hotel,
40. Interlinked Technologies,
41. International Breweries,
42. Japaul Oil & Maritime Services,
43. John Holt,
44. Julius Berger Nigeria,
45. Lafarge Africa,
46. Livestock Feeds,
47. McNichols,
48. Meyer,
49. Morison Industries,
50. MRS Oil Nigeria,
51. Multi-Trex Integrated Foods,
52. Nascon Allied Industries
53. Neimeth International Pharmaceuticals,
54. Nestle Nigeria,
55. Nigeria-German Chemicals,
56. Nigerian Aviation Handling Company,
57. Nigerian Breweries,
58. Nigerian Enamelware,
59. Northern Nigeria Flour Mills,
60. O.C. Gases Nigeria,
61. Okomu Oil Palm,
62. Omatek Ventures.
63. Paints & Coatings Manufactures,
64. Pharma-Deko,
65. Port & Paints & Products Nigeria,
66. Premier Paints,
67. Presco,
68. PZ Cussons Nigeria,
69. Red Star Express,
70. RT Briscoe,
71. SCOA Nigeria,
72. Seplat Petroleum Development,
73. Studio Press (Nigeria),
74. Tantalizers,
75. Thomas Wyatt Nigeria,
76. Total Nigeria,
77. Tourist Company of Nigeria,
78. Transcorp Hotels,
79. Trans-Nationwide Express,
80. Tripple Gee & Co.,
81. UAC of Nigeria,
82. Unilever Nigeria,
83. Union Diagnostic & Clinical Services,
84. Union Dicon Salt,
85. University Press,
86. Vitaform Nigeria

**Source:** Researcher’s Compilation, 2019

**APPENDIX IV**

**CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE AND FINANCIAL PERFORMANCE OF SELECTED QUOTED FIRMS IN NIGERIA**

