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Analysing financial performance of listed cement industries in Nigeria: Financial Ratio Approach

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Abstract
Purpose: The grounds for this study are to reflect a quantitative connection allying the financial statements of different firms at different periods and how the financial performance (FP) of firms can be measured using financial ratios.
Research methodology: This research employs descriptive research with a quantitative approach focusing on calculations. Data were analysed through the Financial Ratio Analysis (FRA).
Results: The comparative FRA unlocks the overall FP of the three firms. The result refill that, on average, Dangote Cement plc maintain the lead, CCNN/BUA Cement second, while Lafarge Africa plc is the least in all the FP indicator used.
Limitations: The analysis is restricted to ten years FSs published by the three giant firms in the cement industries in Nigeria plc between the years 2012 to 2021.
Contribution: This analysis expatriates and, in greater detail, the benefits that can be derived from applying FR analysis as a tool for financial performance (FP) measurement. It also helps in determining how the financial performance of firms can be measured through financial ratios.
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1. Introduction

Performance in sorganisations is the answer to the success or failure of sorganisational goals that have been set (Aryadi, Ahadiat, & Ribhan, 2020). Financial performance (FP) of Firms is used as a tool measuring firms' current development, potential growth and description of the financial condition of a firm(s) within a certain period, both in terms of funding and distribution of funds. s'Analyzing firms' financial performance (FP) involves the preference, appraisal, and explication of financial data, alongside financial notes and information, which investment aid and elucidate financial commitment. According to S and M (2017), FP analysis is the procedure for determining - a firms set-off and financial features the accounting records and financial statements information to better understand the firm's position and performance.

A ratio can be described as a quantitative or numerical relationship between two or more variables. Saigeetha and Surulivel (2017) describe Financial Ratio (FR) as a systematic use of ratios to determine the current financial condition, the historical performance, strengths, weaknesses, opportunities and threats (SWOT) of the firm. The financial ratio is one of the tools used to assess the firm financial performance and condition (Keerthi & Eswari, 2020). FR evaluate various aspect of the financial condition of the firm through the value in the financial statement. It can also be used to interpret the financial statements published yearly by the firm.

FR helps to provide information on the firm's financial features, operating plans and profitability. Furthermore, it also helps out in inter-firm juxtaposition through the use of necessary financial data. The inter-firm juxtaposition lays out the relative position and also supplies material data for comparing the financial performance (FP) in similar industries within the same period. Therefore, FR is a major instrument used for the investment decision based on a firm financial report. By knowing the firms' financial performance, stockholders can decide whether to continue investing their capital in the firms or not.

The Nigerian cement industry is a growing sector of the Nigerian economy, largely linked to the productivity and performance of the construction sector and increasing activity in the real estate sector. Therefore, the increase in the performance of the Nigerian cement industries will have a remarkable impact on the economic value that the sector gives out to the country's economy as a whole.

However, the three giants of Nigerian cement-producing industries are; Dangote Cement Plc (DANGCE.NG), Lafarge Africa Plc (WAPCO.NG) and Cement Company of Northern Nigeria Plc (CCNN.NG), now BUA Cement Plc (BUAC.NG). Dangote Cement Plc was incorporated in 2010 and listed on the Nigerian Stock Exchange on 26th October 2010. Lafarge Cement WAPCO Nigeria Plc was incorporated in 1959 and listed on the Nigerian Stock Exchange on 16th February 1979. Cement Company of Northern Nigeria Plc was incorporated in 1962 and listed on the Nigerian Stock Exchange on 4th October 1993. BUA Cement Plc is a Nigerian cement producer, it was incorporated in 2000 and listed on the Nigerian Stock Exchange on 9th January 2020, following the conclusion of the merger of two of BUA's cement entities, the Cement Company of Northern Nigeria and Obu Cement Company.

Dangote Cement Plc“”y has 48.6Mta installed factory capacity covering 10 African countries and uses completely unified "quarry-to-customer" operations, which cover manufacturing, sales, and distribution of cement. Dangote Cement Plcthe 's production capacity in Nigeria market is 32.3Mta Its Obajana plant in Kogi state has 16.3Mta of power across four lines, making it the largest cement plant in Nigeria and also largest in Africa. Another is Ibese plant in Ogun State, which has four cement lines with a combined installed capacity of 12Mta. Similarly, there is a Gboko plant in Benue state which has 4Mta capacity.

Lafarge Africa Plc has 10.5Mtpa installed factory capacity and the widest footprint in Nigeria. Lafarge Africa Plc operations are in the Northeast (Ashaka, in Gombe State), Southwest (Ewekoro and Sagamu in Ogun State) and South East (Mfamosing, Cross Rivers State) with Ready-Mix operations in Lagos, Abuja and Port Harcourt.

BUA Cement Plc has a total 8Mtpa installed factory capacity and also a market scapitalisation of ₦1.18trillon ($3.3billion), making it the third largest cement producer in the Nigerian market and the largest cement producer in the Northwestern region of the country.

In a crucial and competitive business environment like the cement industries or industrial goods sector, which continues to grow. According to Suryahadi (2020), this type of growth is driven by the large number of people who carry out their activities at home in both the short and long term so that the purchase of consumption materials and their financial position increases rapidly. As one of the industries that significantly impact the economic value of the country's economy as a wholeand , periodic analysis of their FP is mandatory for any cement industries firm to remain in business.

1.2 Problem statements

Cement industries are very much worried about the rivalry in the Industrial goods industry or manufacturing sectors. Each firm needs to continue to enhance its financial performance to participate with other rivals in the industry. Financial statements (FSs) portray information about changes of an entity's financial position and performance of a firm yearly. However, FR provides a ssystematise

modus operandi with which to juxtapose firms and industries. FR puts all firms on a proportionate equal playing field in the eyes of analysts; firms are evaluated based on their performance preferably than their market share, size or sales volume. Differentiating the raw financial data in the (FSs) of two firms in the same industry provides insubstantial insight, but FR go beyond the numbers to divulge how efficacious a firm is in generating profit, funding the business, growing through sales preferably than debt and a wide scope of other factors.

Although financial statements (FSs) show the financial positions of a firm at the end of each accounting year, they do not present accurate financial performance (FP) on the level of performance or cost-effectiveness of operations of the firm at the end of twelve months accounting period. It is usually observed that the profit before tax (PBT) figure of a firm might be higher in the current year than the previous year,. Still, this PBT figure cannot be used to say the firm has performed financially better in the current year than in the preceding years because the average cost of the asset is being considered each year which may reduce or increase the profit for each period. Therefore, if an investment decision is based on this, it will hurt the investment or investors.

Firms in the cement industries are frequently not only measured by their market capitalisation, equity (total assets minus total liabilities), net sales and (recurring) EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization), nonetheless also by their financial performance indexes (Financial Ratio) such as free cash flow, the Net Debt/EBITDA ratio, EBITDA margin, Return on Assets (ROA), Return on Sales (ROS), Return on Equity (ROE) and Return on Capital Employed (ROCE). For most of the heavyweight cement industries, such as Dangote Cement Plc and Lafarge Africa Plc, the net debt is enormous than the EBITDA, while BUA Cement Plc have a net debt lower than the EBITDA. To value a company's financial strength, the FR indicators are mostly considered.

According to Olayinka (2022), scores investments are done without accentuation on those indexes that manifest such investments would be stable and efficacious to generate great returns, in the long run. The firms and numerous interested stakeholders' categories such as managers, shareholders, creditors, tax authorities, and others need to seek solutions to the following critical issues before making any financial or investment decisions.
1. What is the firm's financial position at a given point in time?
2. How is the firm's financial performance over a given period?

Based on the background above, this study will be centred on sanalysing the financial performance of the three giant firms in the cement industries by using financial ratios analysis for 2012 to 2021 financial year-end. The analysis result will assist various interested groups and authors to assess the firm's overall performance through each component of its financial statements.

1.3 Research objectives.
The overall objective of this study is to analyse the financial performance of the three key player firms in Nigeria's cement industries using the financial ratio approach. While the explicit objectives go as follows:
1. To establish the extent to which financial ratio (FR) can be used to interpret FSs of firms.
2. To identify the available FR for measuring and comparing the financial performance of firms.
3. To establish the advantages of using the financial ratio (FR) to interpret FSs of firms.

1.4 Research questions.
The research questions go as follows:
1. How can FR be used to interpret financial information in the firm's FSs?
2. What are the FR indexes relevant in measuring and comparing the financial performance of firms?
3. Are FR useful for projecting a firm's financial performance?

1.5 Scope of the Study
This research analyses the financial performance of listed cement industries in Nigeria using financial ratio computation for ten years from 2012 – 2021. This was because the adoption of the International

Financial Reporting Standard (IFRS) by many firms in Nigeria started from the 2012 financial year-end. The analysis will be based on the FSs published by the three giant firms in the industries (Dangote Cement Plc (DANGCE.NG), Lafarge Africa Plc (WAPCO.NG) and Cement Company of Northern Nigeria Plc (CCNN.NG) now BUA Cement Plc (BUAC.NG). for the period under review.

1.6 Significance of the study

This study will expatiate and, in greater detail, the benefits that can be derived from applying FR analysis as a tool for financial performance (FP) measurement. This research work will help in determining how the financial performance of firms can be measured through the use of financial ratios. The study will help reflect a quantitative relationship between the financial statements of the different firms at different periods. It will serve as a reference to other researchers who have in-depth knowledge of FR and its performance measuring abilities.

2. Literature Review

2.1 Historical background of the case study

Dangote Cement Plc is a cement manufacturing industry. The firm packaged and distributed cement and allied merchandise for the limestone quarry, coal processing and property investment sectors in Nigeria and the rest of Africa. Dangote Cement Plc operates in eleven countries,, including Benin, Ghana, Cameroon, Congo, Ethiopia, Senegal, Sierra Leone, South Africa, Tanzania, Zambia and Nigeria, and also globally. Dangote Cement Plc operates the biggest and most significant cement plant in sub-Saharan Africa,d, the Obajana Cement Plant located in Kogi state, Nigeria. Obajana Cement Plant product, popularly known as Dangote Cement, isrequire limestone quarry, coal processing and estate and property investment sectors in higher demands. Formerly referred to as Obajana Cement Plc, the name transposed to Dangote Cement Plc in 2010. The firm is a subsidiary of Dangote Industries Limited. Its head office is in Lagos, Nigeria. Dangote Cement Plc was incorporated in 2010 and listed on the Nigerian Stock Exchange on 26th October 2010.

Lafarge Africa Plc is a cement manufacturing company and and one of Nigeria's earliest cement manufacturing companies. Lafarge Africa Plc is an affiliate member of the LafargeHolcim Group, the world's vastest building and concrete solutions company. Lafarge Africa Plc has three plants in Nigeria located at Mfamosing in the South-South district; Ashaka in the Northeast district: and Ewekoro and Sagamu in the South West district of Nigeria with its head office are in Lagos, Nigeria. Lafarge Africa Plc has 10.5Mtpa installed cement production factory capacity. Its allied product range includes cement, aggregates, ready-mix concretes, and pulverized fly ash. Cement solutions are merchandised under Elephant, Ashaka, Supaset, PowerMax and Unicem. Lafarge Cement WAPCO Nigeria Plc was incorporated in 1959 and listed on the Nigerian Stock Exchange on 16th February 1979.

Cement Company of Northern Nigeria Plc (CCNN Plc) manufactures and sells cement in Nigeria under the trademark Sokoto Cement. CCNN Plc was incorporated in 1962 and started producing cement in 1967 to meet the demand for cement needed for the expansion of the Kalambaina Plant. CCNN Plc was listed on the Nigerian Stock Exchange on 4th October 1993, with its head office in Lagos, Nigeria. CCNN Plc was sprivatised, and an affiliation of Heidelberg Cement Group, Scancem International ANS of Norway, was appointed as core investor and technical partner in 2000. In 2008, a Nigerian-based firm, Damnaz Cement Company Limited, became the new core investor when Heidelberg divested its stake in the business. BUA International Limited acquired Damnaz Cement Company and became the weighted shareholder in CCNN Plc and its technical partner. BUA Cement Plc is a Nigerian cement producer. It was incorporated in 2000 and listed on the Nigerian Stock Exchange on 9th January 2020 following the culmination of the merger of two of BUA's cement entities, the CCNN Plc and Obu Cement Company.

2.2 Financial ratios (FRS)

FRs are indicators used to measure firm performance by sanalysing essential FR indicators such as profitability, liquidity or efficiency. FRs express the interconnection ,between two or more financial statement information and can be denoted as percentages, proportions, decimal points or the number

of times (Farasi, 2022). FR is an index that equates two accounting figures and is obtained by dividing one figure by another. A complete set of financial statements (FSs), as defined by the International Financial Reporting Standards (IFRS), encompass the Balance Sheet, the Income Statement and the Cash Flow Statement. They are the most common FSs items used for FR computations.

FRs analysis is used to measure a firm's performance to determine its financial performance and also proffers solutions by providing appropriate and suitable plans. However, a large number of degrees and several financial ratios were available. Nonetheless, the option of ratios used perseveres on the activity of the firm and the purpose of analysis (Oshoke & Sumaina, 2015). Therefore, using FRs in measuring the FP of a firm can be done using various kinds of FRs. Each FR has a distinct purpose, benefit, and meaning, and each outcome of the calculated FR is then well-defined for a conclusion.

2.3 Financial performance (FP)

Financial performance (FP) is an acquisition or achievement for management when controlling firm wealth efficiently over a certain period. In other wordss, FP measures a firm's business activities and results in financial terms(Abu & Bamidele, 2022). Etale (2020) argued that a firm's performance could be measured in terms of absolute return on assets, return on equity, return on capital employed, profit, earnings per share, sales growth, and assets growth, among others. Performance has also been interchangeably used with profitability, firm performance, corporate performance, financial performance, etc. (Etale, 2020). Ehiedu, Onuorah, and Mbagwu (2022) argue that the ability of firms to meet their financial goals and objectives is referred to as financial performance.

FP measurement of a firm is usually related to how well it can use its revenue and expenses, shareholder funds, total liability and total assets. sAnalysing the FR is one of the best tools for measuring a firm's financial performance. Therefore, it can be concluded that FP is an analysis that describes the results or performance achieved by the financial management of a firm in managing its funds and assets according to the standards set by the firm. FP refers to an outright appraisal of a firm's comprehensive standing in categories such as assets, liabilities, equity, expenses, revenue, and comprehensive profitability. It is appraised through various business-related formulas that empower users to evaluate exact details regarding a firm's embryonic efficacy. To ascertain the financial situation of the firm and to make an insight of how well a firm is coherent in its functioning and management and how well the firm has been able to make use of its assets and earn a profit, divergent methods and tools are employed, among which are the financial ratios.

2.4 Profitability Ratios (PR)

Profitability ratios are the degree of a firm's incomes and earning capacity. Profitability ratios are critical for equity holders because they obtained revenue in the form of dividends. They are also important for lenders because incomes and profits are provenances of funds for debt coverage. Besides, managers employ earnings as a manner to degree overall performance. Profitability appraisal should only encompass the kind of income arising from the ordinary operations of the firm. The most common profitability ratio used in this study are defined as follows.

2.4.1 Net profit margin (NPM).

This ratio is essential in sand analysing a firm's performance and decision-making because it ascertains the financial fitness and position of the firm. It expresses profit after tax (PAT) as a proportion of overall sales revenue, which allows juxtapositions among firms irrespective of their size. Robins (2000) argues that if the NPM is above the industry average, the firm manages its expenses felicitously and is regarded as profitable, but where the NPM is lower than the industry average is a sign of escalated competition or a high cost of sales.

2.4.2 Return on Assets (ROA)

This ratio is one kind of return on investment (ROI) criterion used to estimate a firm's profitability with its overall assets (Tho, Dung, & Huyen, 2021). This ratio specifies how prudent a firm is performing by juxtaposing the net income or profit before tax (PBT) it's producing to the capital it's invested in total assets. Tayeh, Al-Jarrah, and Tarhini (2015) stated that analysts use ROA to evaluate

a firm's FP relative to investments made without thinking about whether or not the firm used debt or equity capital to fund the investments. However, a higher ROA indexsin making indicates how productive and efficient management is using its total assets. ROA is the average net income ratio to total assets (El Idrissi & Alami, 2021).

2.4.3 Return on Equity (ROE)

This ratio pertains to the finance made available to the firm by the shareholders juxtaposed with the return earned by a firm for its shareholders (Tho et al., 2021). In other words, it is the calculation of a firm's annual return (net income) divided by the worth of its total shareholders' equity, shown as a proportion or percentage. ROE estimates the profits made for every Naira from shareholders' equity. It designates the management's achievement or failure at sand maximising the return to stockholders based totally on their investment in the firm (Alexander & Nobes, 2007). This Ratio, according to Mappadang, Wijaya, and Mappadang (2021), is an "end goal ratio".

2.4.4 Return on Capital Employed (ROCE)

This ratio is frequently held on to as a rudimental indicator of the profitability strength of a firm (Tayeh et al., 2015). It usually refers to the total assets invested less the current liabilities. ROCE designates the firm's earning power (Olayinka, 2022). It expresses profit before tax (PBT) as a proportion of capital employed. Consequently, it looks at the firm efficiency as a whole. ROCE is a vital indicator of financial performance since it contrasts the net profit generated by the firm with the total value of fixed and current assets, less current liabilities. ROCE is calculated using the proportion of the following formula): PBT to Capital Employed (CE) (Elliott & Elliott, 2007) Capital Employed (CE) is the difference between Total Assets and Current Liabilities.

2.4.5 Earning Per Share (EPS):

EPS manifest the profitability of the firm on a per-share footing; it does not consider how much is paid as divided, and how much is reserved in the business; nonetheless as a profitability index, it is a valuable and universally used ratio (Ershad, Uddin, & Faruk, 2021). It also allows the shareholder of a firm to compare one year's earnings with that of another. EPS expresses profit after tax (PAT) as a proportion of the number of shares outstanding (Pandey, 2004).

2.5 Debt Ratios (DR)

Debt ratios are standard to quantify the degree of security or safety for providers of long-term investments. The value of debt juxtapose to the firm's size needs to be appropriately evaluated. These evaluations offer apprehensions regarding the value of funds brought forth through outsiders. A massive portion of debt in capital structure postulates the threat of not meeting the principal and interest burden when due because the firm might not be generating adequate liquidity to match its obligations. Nevertheless, Debt financing provides a firm with access to financial resources and, therefore ultimately influences the firm FP (Oranefo & Egbunike, 2022). The most common debt ratio used in this study is explained as follows.

2.5.1 Debt/Asset ratio

This ratio indicates the firm's long-term debt-paying ability. The ratio compares total debt and total assets. Total debt is commonly defined in the financial industry as the sum of both short-term debt STD and long-term debt (LTD) (Ehiedu et al., 2022). This ratio indicates the proportion of assets financed with debt. A high value of this ratio indicates that the firm involves in more risky business**.**

2.5.2 Debt/equity ratio

This ratio Compares capital invested by owners/equity holders (including grants) and funds provided by lenders. This ratio also ascertains a firm's long-term debt-paying potentiality. The least this ratio, the healthier the firm's debt condition. Excessive debt can put the firm at menace. However, too little debt may curtail the firm's potential. Although Shareholders want to get some debt on their investment to magnify profits, this has to be balanced with the capacity to service debt.

2.5.3 Current ratio

The current ratio juxtaposes current assets and current liabilities. Accordingly, it is computed by dividing existing assets by current liabilities. This ratio is a criterion of the effectiveness and propensity of a company to meet its short-term liability burdens by using its assets (Olayinka, 2022). The too-low current ratio may designate liquidity affairs. In contrast, an extremely high current ratio may mean there is surfeit cash that should perhaps be invested elsewhere or that there is too much inventory.

3. Research Methodology

This study uses descriptive research with a quantitative technique that focuses on calculations. The data used in this study are secondary data gleaned from the financial statements of Dangote Cement Plc, Lafarge Africa Plc and Cement Company of Northern Nigeria Plc /BUA Cement Plc over ten years from 2012 to 2021. This study uses a data analysis modus operandi in the form of the Financial Ratio Analysis (FRA) technique. FRA is the primary analytical tool in financial analysis that is sutilised in answering questions about the firm. FRA generates a narration of the financial performance (FP) assessment, both in the short and long term, which could assist to identify firm trends and predict failure.

FRA is a critical analytical tool that can assess financial position based on relative data on each of the elements in the FSs, precisely the balance sheet, profit and loss statement, income statement, and cash flow statement for a selected period. For the research work, the FRs selected for the analysis pf the Financial performance of the case study are restricted to the following; Net profit Margin, Return on Assets (ROA), Return on Equity, Return on Capital Employed, Earning Per Share, Debt/Assets Ratio, Debt/Equity Ratio and Current Ratio.

4. Results and Discussions

4.1 Method of data analysis

Descriptive statistical analytical mechanism (Tables and figures) were used in composing and sanalysing the data initiated for this study.

Descriptive statistics are a scathing part of initial data analysis and lay out the foundation for juxtaposing variables with inferential statistical tests (Kaur, Stoltzfus, & Yellapu, 2018). Therefore the descriptive analysis is an important aspect of conducting statistical analysis because it gives an idea of the data distributions. Under this section, the study analyses the financial parameters, like Net profit Margin, Return on Assets (ROA), Return on Equity, Return on Capital Employed, Earning per Share, Debt/Assets Ratio, Debt/Equity Ratio and Current Ratio the three giants of Nigerian cement-producing industries.

Dangote Cement Plc, Lafarge Africa Plc and Cement Company of Northern Nigeria Plc /BUA Cement Plc had been selected for this study because they play a vital role in this industry to examine the performance of the cement industry and compare the data of the selected firms.

Those financial parameters stated above were used to assess the relative strength of the three firms by performing simple calculations on items on income statements and balance sheets. Those financial parameters measure firms' operational efficiency, liquidity, stability and profitability and give investors more relevant information than raw financial data. Using the widely popular and arguably indispensable technique of FR analysis, investors and analysts gain profitable advantages in the stock market.

Table 1. Description of Financial Ratios used in this Study

Financial Ratios	**Formula**	**Source**
Net profit margin (NPM)	Profit After Tax / Sales	Robins (2000), Olayinka (2022)
Return on Assets (ROA)	Profit Before Tax/ Total Assets (TA)	Endri (2012), Tayeh et al. (2015)
Return on Equity (ROE)	Profit After Tax / Equity	Alexander and Nobes (2007),

		Hossain, Sultan and Ahmed (2021) Olayinka (2022)
Return on Capital Employed (ROCE)	Profit Before Tax / Capital employed	Elliott and Elliott (2007), Olayinka (2022)
Earnings Per Shares	Profit After Tax / No. of shares outstanding share	Pandey (2004)
Debt Ratio	Total Debt (TD) / Total Assets (TA)	Quesada (2019), Olayinka (2022)
Debt–Equity Ratio	Total debt / Equity	Quesada (2019), Olayinka (2022)
Current Ratio	Current Assets / Current liabilities	Quesada (2019), Shabrina and Hadian (2021), Olayinka (2022)

Table 2. Financial Ratios for Dangote Cement plc

	Net Profit Margin	ROA	ROE	ROCE	EPS	Debt/Assets Ratio	Debt/Equity Ratio	Current ratio
2012	0.51	0.23	0.34	0.27	8.57	0.33	0.50	1.54
2013	0.57	0.26	0.37	0.30	12.34	0.30	0.44	0.91
2014	0.50	0.19	0.29	0.28	10.90	0.34	0.51	0.57
2015	0.55	0.19	0.28	0.22	12.51	0.33	0.50	0.80
2016	0.86	0.25	0.38	0.34	21.61	0.35	0.53	0.50
2017	0.46	0.16	0.26	0.27	14.94	0.38	0.63	1.24
2018	0.78	0.28	0.37	0.27	28.25	0.25	0.33	1.55
2019	0.43	0.14	0.20	0.22	15.34	0.30	0.42	1.02
2020	0.49	0.17	0.26	0.27	20.69	0.36	0.56	1.03
2021	0.38	0.15	0.26	0.31	22.42	0.43	0.77	1.06
Average	0.55	0.20	0.30	0.28	16.76	0.34	0.52	1.02
Min	0.38	0.14	0.20	0.22	8.57	0.25	0.33	0.50
Max	0.86	0.28	0.38	0.34	28.25	0.43	0.77	1.55

Source: Processed data

Table 2 shows the FR indicators used to measure Dangote Cement plc's FP from 2012 to 2021 and the Debt financing proportion used. Referring to table 2 above,, the FP is at equilibrium and best in 2016 with NPM of 0.86, ROA of 0.25 ROE of 0.38 and ROCE of 0.34 when the Debt ratios of DAR, DER and CR are 0.35, 0.53 and 0.50. The EPS of the year 2016 is 21.16 naira per share. However, the FP started retarding from the subsequent year till 2021 and among the factors that could be responsible for this might be an increase in debt ratios above that of 2016. Generally, on average, the FP of Dangote Cement plc shows that the firm is performing better in the cement Industries.

Table 3. Financial Ratios for Lafarge Africa plc

	Net Profit Margin	ROA	ROE	ROCE	EPS	Debt/Assets Ratio	Debt/Equity Ratio	Current ratio
2012	0.17	0.10	0.21	0.18	4.87	0.55	1.22	0.77
2013	0.29	0.18	0.30	0.23	9.24	0.42	0.73	0.93
2014	0.27	0.08	0.10	0.11	6.44	0.19	0.24	0.69
2015	0.26	0.08	0.10	0.09	6.60	0.21	0.26	0.69
2016	0.24	0.04	0.06	0.05	3.94	0.37	0.58	0.78
2017	-0.07	-0.02	-0.05	-0.02	-2.40	0.54	1.18	0.28
2018	0.02	0.01	0.02	-0.02	0.48	0.56	1.26	0.40
2019	0.12	0.05	0.06	0.06	1.41	0.28	0.38	0.87
2020	0.14	0.06	0.08	0.09	1.78	0.26	0.35	0.80
2021	0.20	0.10	0.14	0.16	3.32	0.26	0.35	1.10
Average	0.16	0.07	0.10	0.09	3.57	0.36	0.66	0.73
Min	-0.07	-0.02	-0.05	-0.02	-2.40	0.19	0.24	0.28
Max	0.29	0.18	0.30	0.23	9.24	0.56	1.26	1.10

Source: Processed data

Table 3 shows the FR indicators used to measure Lafarge Africa plc's FP from 2012 to 2021 and the Debt financing proportion used. Referring to table 3 above,, the FP was at its best in 2013 with NPM of 0.29, ROA of 0.18, ROE of 0.30 and ROCE of 0.23 when the Debt ratios of DAR, DER and CR are 0.42, 0.73 and 0.93. The EPS of the year 2013 is 9.24 naira per share. However, the FP started retarding through the subsequent eight years till 2021, indicating that the firm is facing some challenges that need serious attention to keep the firm competitive with other firms in the industry. Meanwhile, its FP appreciated in 2021 NPM of 0.20, ROA of 0.10, ROE of 0.14 and ROCE of 0.16 as against the preceding seven years, an indication that the firm is on track for recovery.

Table 4. Financial Ratios for CCNN/BUA Cement plc

	Net Profit Margin	ROA	ROE	ROCE	EPS	Debt/Assets Ratio	Debt/Equity Ratio	Current ratio
2012	0.08	0.08	0.16	0.16	0.95	0.46	0.86	1.90
2013	0.10	0.10	0.19	0.19	0.86	0.45	0.82	1.94
2014	0.13	0.12	0.20	0.20	1.24	0.40	0.67	2.12
2015	0.09	0.07	0.12	0.12	0.96	0.41	0.69	1.69
2016	0.09	0.06	0.11	0.12	1.00	0.43	0.74	1.69
2017	0.16	0.13	0.22	0.24	2.57	0.42	0.71	1.72
2018	0.54	0.13	0.21	0.13	1.89	0.37	0.58	0.50
2019	0.35	0.13	0.17	0.18	1.79	0.23	0.29	0.64
2020	0.35	0.09	0.19	0.14	2.14	0.51	1.04	1.15
2021	0.35	0.12	0.23	0.18	2.14	0.45	0.83	0.99
Average	0.22	0.10	0.18	0.17	1.55	0.41	0.72	1.43
Min	0.08	0.06	0.11	0.12	0.86	0.23	0.29	0.50
Max	0.54	0.13	0.23	0.24	2.57	0.51	1.04	2.12

Source: Processed data

Table 4 shows the FR indicators used to measure CCNN/BUA Cement plc's FP from 2012 to 2021 and the Debt financing proportion used. Referring to table 4 above,, the FP is at equilibrium and best in 2018 with NPM of 0.54, ROA of 0.13, ROE of 0.21 and ROCE of 0.13 when the Debt ratios of DAR, DER and CR are 0.37, 0.58 and 0.50. The EPS of the year 2018 is 1.89 naira per share though less than 2.57 naira per share in 2017. However, the FP started retarding from the subsequent year with no significant difference in-between till 2021. Meanwhile, the merger arrangement of 2020 may bring changes in the following years. Generally, on average, the FP of CCNN/BUA Cement plc shows that the firm is performing better in the cement Industries.

The table 5 and 6 below is the Descriptive Analysis, and Average Financial Ratios of Data Extracted from the three companies disclosing information derived from their respective annual report from 2012 to 2021.

Table 5. Descriptive Analysis of Data Extracted from the three companies

	Average ₦'000	**Median** ₦'000	**Minimum** ₦'000	**Maximum** ₦'000	**Sd** ₦'000
Sales	257,000,000,000	188,000,000,000	13,000,000,000	993,000,000,000	242,000,000,000
Profit/Loss Before Tax	112,000,000,000	41,700,000,000	-13,200,000,000	481,000,000,000	140,000,000,000
Profit/Loss After Tax	123,000,000,000	36,700,000,000	-7,410,000,000	534,000,000,000	157,000,000,000
Trade and Other Receivables	12,600,000,000	9,330,000,000	508,000,000	83,300,000,000	16,500,000,000
Current Assets	158,000,000,000	87,900,000,000	7,020,000,000	888,000,000,000	201,000,000,000
Total Asset	725,000,000,000	536,000,000,000	14,200,000,000	2,580,000,000,000	681,000,000,000
Total Non-current Assets	567,000,000,000	435,000,000,000	6,500,000,000	1,690,000,000,000	499,000,000,000
Total Equity	466,000,000,000	363,000,000,000	7,640,000,000	1,460,000,000,000	438,000,000,000
Current Liabilities	170,000,000,000	129,000,000,000	3,500,000,000	838,000,000,000	185,000,000,000
Total Non-current Liabilities	88,600,000,000	60,300,000,000	2,530,000,000	283,000,000,000	89,200,000,000
Total Liabilities	258,000,000,000	188,000,000,000	6,330,000,000	1,120,000,000,000	259,000,000,000
Capital Employed	555,000,000,000	406,000,000,000	10,200,000,000	1,740,000,000,000	510,000,000,000

Source: Processed data

Table 6. Average Financial Ratios for the three firms

	Average	Median	Minimum	Maximum	Sd
Net Profit Margin	0.31	0.28	-0.07	0.86	0.22
ROA	0.13	0.12	-0.02	0.28	0.08
ROE	0.19	0.20	-0.05	0.38	0.11
ROCE	0.16	0.16	-0.04	0.34	0.09
EPS	7.29	3.63	-2.40	28.25	7.92
Debt/Assets Ratio	0.37	0.37	0.19	0.56	0.10
Debt/Equity Ratio	0.63	0.58	0.24	1.26	0.28
Current ratio	0.39	0.37	0.13	2.12	0.16

Source: Processed Data

Table 6 reveal trends in the cement industries during the period of study, the result create a benchmarks against which the performance of all the three firm can be measured. Other small firms in the industries can use industry benchmarks to craft sorganisational strategy and clearly measure their own performance against the industry as a whole.

Table 7. Comparative Analysis of Data Extracted from the three firms

	Average in billion Naira				Maximum in billion Naira				Minimum in billion Naira			
	Ind	**D**	**L**	**B**	**Ind**	**D**	**L**	**B**	**Ind**	**D**	**L**	**B**
Sales	257	534***	151**	85*	993	993	262	257	13	286	87	13
Profit/Loss Before Tax	112	316***	24*	30**	534	534	64	103	-13	138	-7	2
Profit/Loss After Tax	123	285***	22*	30**	481	481	53	90	-7	146	-13	1
Trade and Other Receivables	13	10*	14**	13*	83	16	32	83	1	3	1	1
Current Assets	158	348***	66**	59*	888	888	148	239	7	113	24	7
Total Asset	725	1491***	427**	256*	2580	2580	578	766	14	639	152	14
Total Non-current Assets	567	1143***	361**	197*	1690	1690	518	584	7	448	123	7
Total Equity	466	975***	273**	151*	1460	1460	395	398	8	428	68	8
Current Liabilities	170	343***	101**	65*	838	838	243	208	4	124	32	3
Total Non-current Liabilities	89	173***	53**	40*	283	283	174	185	3	87	5	3
Total Liabilities	258	516***	154**	105*	1120	1120	322	390	6	212	67	6
Capital Employed	555	1148***	326**	191*	1740	1740	430	583	10	515	120	10

Note: Ind. *= Represent the variables for the three firms in the cement industry,* ***D****= Dangote Cement plc,* ***L****= Lafarge Africa plc,* ***B****= CCNN/BUA Cement plc*

Source: Processed data.

Table 7 shows the Average Comparative Analysis of Data Extracted from the three firms in ten years (from 2012 to 2021) and the Industrial average. Referring to table 7 above, Dangote Cement plc recorded an average sales of 534b with no loss and higher profit/loss before tax of 316b compared to Lafarge Africa plc with an average of 151b sales and only an average of 24b PBT. On the other hand, however, CCNN/BUA Cement Plc recorded 85b with 30b PBT, an indicated that Dangote is ahead by a vast margin. The same thing with current asset totals, which were positively recorded throughout the period, unlike the other two companies. It could be seen that Dangote Cement plc's financial result maintains the lead and above industrial average in performance, assets, liabilities and equity but with the lowest in trade and other receivables. The result shows a clear indication that Dangote Cement plc is the leader in the cement industry.

Lafarge Africa plc's financial result is the least among the three in the industry. Its maximum and minimum profitability, assets and liabilities index are the least though slightly above that of CCNN/BUA Cement Plc in turnover.

The financial result of CCNN/BUA Cement Plc maintains second position in most of the results though with a wide gap to that of Dangote Cement plc. However, there is an indication that it might lead Lafarge Africa plc with a wide gap in the short run.

Table 8. Comparative Analysis of Financial Ratios for the three firms

	Maximum				Average				Minimum		
	Ind.	**D**	**L**	**B**	**Ind.**	**D**	**L**	**B**	**Ind.**	**D**	**L**
		Net Profit Margin			0.31	0.55***	0.16*	0.22**	-0.07	0.38	-
0.07	0.08	0.86	0.86		0.29	0.54					
		ROA			0.13	0.20***	0.07*	0.10**	-0.02	0.14	-
0.02	0.06	0.28	0.28		0.18	0.13					
		ROE			0.19	0.30***	0.10*	0.18**	-0.05	0.20	-
0.05	0.11	0.38	0.38		0.30	0.23					
		ROCE			0.16	0.28***	0.09*	0.17**	-0.04	0.22	-
0.02	0.12	0.34	0.34		0.23	0.24					
		EPS			7.29	16.76***	3.57**	1.55*	-2.40	8.57	-
2.40	0.86	28.25	28.25		9.24	2.57					
		Debt/Assets Ratio			0.37	0.34*	0.36**	0.41***	0.19	0.25	0.19
	0.23	0.56	0.43		0.56	0.51					
		Debt/Equity Ratio			0.63	0.52*	0.66**	0.72***	0.24	0.33	0.24
	0.29	1.26	0.77		1.26	1.04					
		Current Ratio			0.39	1.02**	0.73*	1.43***	0.13	0.50	0.28
	0.50	2.12	1.55		1.10	2.12					

Note: Ind. *= Represent the Financial Ratios for the three firms in the cement industry,* ***D****= Dangote Cement plc,* ***L****= Lafarge Africa plc,*
B*= CCNN/BUA Cement plc, (***= highest, **= medium, *= Lowest)*

Source: Processed data

Table 8 shows the Average FRs indicators used to measure the FP of the three firms in ten years (from 2012 to 2021) and the Debt financing proportion used. Referring to table 8 above, it could be seen that, on average, Dangote Cement plc maintain the lead in all FP indicator with NPM of 0.55, ROA of 0.20, ROE of 0.30 and ROCE of 0.28 with the lowest DAR of 0.34, DER of 0.52 and second in CR of 1.02. Similarly, the firm average EPS is 16.76 naira per share.

Lafarge Africa plc FP is the least among the three in the industry with NPM of 0.16, ROA of 0.0.07, ROE of 0.10 and ROCE of 0.09 with the second highest DAR of 0.36, DER of 0.66, but lowest in CR of 0.73. The firm average EPS is 3.57 naira per share.

CCNN/BUA Cement maintains second position in all the FP indicators among the three in the industry with an NPM of 0.22, ROA of 0.0.10, ROE of 0.18 and ROCE of 0.17 with the highest all DR indicators. (DAR of 0.41, DER of 0.72, and CR of 1.43. The firm average EPS is 1.55 naira per share.

5. Conclusion

5.1 Conclusion

From the review of literature, result and discussion above, it can be seen clearly that FR analysis is the benchmark for the evaluation of FP and the position of a firm. FR analysis guides and leads the way for the users of financial information disclosed in the firm's financial statements. Similarly, it also enables all the stakeholders in the firm's operation and management to identify the financial strength and weaknesses in the operation and its root causes. FR analysis assists in sand summarising a large volume of financial data disclosed in the financial statement so that qualitative judgment about the firm' FP can be made.

This study reveals that Dangote Cement plc is in a relatively strong position while the other two are also in a safe position basis on the average analysis of all the FP indicators used. Thus there is

prosperity for further growth and development of the cement industry in Nigeria. The findings of this research depicted a better understanding of the financial health of the three giant cement industries. However, studymodern techniques could be adopted for asset management of the firms in the industries for further research.

5.2 Recommendations

For the result of FR analysis to be useful and meaningful, as revealed in this research work, the following recommendations were considered imperative by the researcher:

1. FR must be calculated using reliable, accurate financial information (financial information used in this analysis are verifiable data.)
2. FR must be calculated consistently from time to time
3. FR should be used in comparison to internal benchmarks, goals and objectives of the firm
4. FR should be used in comparison to other firms in the industry
5. FR need to view both periodically and overtime as an indication of broad trends and issues.
6. FR need to be carefully interpreted in the proper context in evaluating FP while considering other important factors and indicators involved.

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