

MARKET APPROACH AND CORPORATE PROFITABILITY OF LISTED CEMENT FIRMS IN NIGERIA

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Abstract

This study investigates market approach and corporate profitability of listed cement firms in Nigeria. Anchored within the International Financial Reporting Standards (IFRS) fair value framework, the research specifically examines the relationship between the market approach and two key profitability metrics: Return on Capital Employed (ROCE) and Return on Equity (ROE). Employing an ex-post facto research design, secondary data were collected from the annual reports of three major cement manufacturers such as Dangote Cement Plc, BUA Cement Plc, and Lafarge Africa Plc for the period 2009–2014. Data analysis using regression revealed a strong positive and statistically significant effect of the market approach on both ROCE ($R^2 = 0.825$, $p = 0.033$) and ROE ($R^2 = 0.812$, $p = 0.037$), leading to the rejection of the null hypotheses. The findings indicate that the use of observable market-based valuations enhances the transparency and relevance of financial reporting, providing a more accurate reflection of asset values and, consequently, improving reported profitability ratios in this capital-intensive sector. The study concludes that the consistent application of the market approach under IFRS 13 contributes positively to profitability assessment. It is recommended that Nigerian regulators strengthen implementation guidelines for the market approach and that firm management enhance related financial disclosures to bolster stakeholder confidence in reported performance metrics.

Keywords: Market Approach, Fair Value Measurement, Corporate Profitability, Return on Capital Employed (ROCE), Return on Equity (ROE).

Introduction

Fair value measurement has emerged as an important issue in financial reporting due to the global adoption of International Financial Reporting Standards, which emphasize measurement bases that reflect current economic conditions rather than historical acquisition values (Barth, 2021). The shift toward fair value has transformed the way assets and liabilities are reported, as firms increasingly base financial information on market derived valuations that present a more realistic picture of financial position and performance (Hodder et al., 2023). Scholars such as Zyla (2023) and Glautier et al. (2021) argue that the rising use of market driven valuations has reshaped corporate

financial disclosures and intensified debates on the reliability and relevance of fair value information. The market approach, which relies on observable prices and transaction data, is considered the most intuitive and transparent among the three major valuation approaches and has been widely recognized for its usefulness in reflecting current economic realities (Penman, 2013).

In industries such as cement manufacturing, where asset values are sensitive to changing market conditions, the valuation method adopted can influence key profitability indicators such as Return on Capital Employed and Return on Equity (Christensen and Nikolaev, 2013). Existing literature acknowledges that profitability

ratios are central to assessing firm efficiency and financial health (Ross, Westerfield, and Jaffe, 2016). However, empirical studies focusing specifically on how the market approach influences profitability outcomes in the Nigerian cement industry remain limited. This gap motivates the present study, which examines the effect of the market approach on the profitability of listed cement firms in Nigeria.

Statement of the Problem

Corporate profitability is a crucial indicator of financial stability and operational efficiency, particularly in capital intensive industries such as the cement sector. In Nigeria, firms in this industry operate in an environment characterized by inflationary pressures, unstable foreign exchange rates, and fluctuating costs of production inputs, all of which create persistent challenges for sustaining profitability. Profitability measures such as Return on Capital Employed and Return on Equity are important tools for investors and managers because they reveal how effectively firms utilize resources and generate returns for shareholders (Pandey, 2015). Although previous studies recognize the potential of fair value measurement to provide more relevant and timely information, the specific contribution of the market approach to profitability outcomes remains insufficiently explored. The market approach relies on observable prices and market based data, which may improve the accuracy of asset valuations and enhance the reliability of profitability assessments. Yet the extent to which this valuation method influences profitability indicators in the Nigerian cement sector is still unclear. Inadequate or inconsistent application of market based measurement may lead to financial reports that fail to reflect current economic realities. This creates uncertainty for stakeholders who rely on profitability metrics for investment decisions and performance evaluation.

Therefore, this study investigates how the market approach affects corporate profitability among listed cement firms in Nigeria.

Purpose of the Study

The primary aim of this study is to examine market approach and corporate profitability of listed cement firms in Nigeria. In more specific terms the study intends to:

1. Ascertain the effect of market approach on return on capital employed of listed cement firms in Nigeria.
2. Examine the effect of market approach on return on equity of listed cement firms in Nigeria.

Research Questions

The ensuing research questions guided the study.

1. What is the effect of market approach on return on capital employed of listed cement firms in Nigeria?
2. What is the effect of market approach on return on equity of listed cement firms in Nigeria?

Hypotheses

The following hypotheses were tested at 0.05 level of significance.

H₀₁: Market approach does not have significant effect on return on capital employed of listed cement firms in Nigeria.

H₀₂: Market approach does not have significant effect on return on equity of listed cement firms in Nigeria.

Literature Review

Market Approach

The market approach defines fair value as the price an asset would receive in an orderly transaction between market participants at the measurement date, focusing on a market-based rather than

entity-specific perspective (IASB, 2011; IASB, 2021). It assumes market participants act knowledgeable and in their economic best interest, with valuations reflecting current conditions and relevant risks (Glautier et al., 2021). Managerial intention is irrelevant; the focus is on how other participants would price the asset under prevailing conditions, aligning with IFRS 13 objectives (Holanda & Magnusson, 2015).

This approach relies on observable market data, such as quoted prices for identical or comparable assets, market yields, interest rate curves, and credit spreads (Margaret et al., 2007). Such inputs form the most reliable level in the fair value hierarchy, enhancing transparency and reducing subjectivity. By depending on external data rather than internal estimates, the market approach limits managerial discretion and addresses concerns over information asymmetry (Landsman, 2007).

Advantages include providing timely, decision-useful information. Observable prices improve comparability, reflect current economic conditions, and update asset values in response to market changes (Barlev & Haddad, 2003). This enhances the relevance and transparency of financial reporting and supports investors' preference for current value over historical cost (Abiahu et al., 2020).

Limitations include potential volatility, especially during rapid market fluctuations or speculative pricing (Richard, 2004). In inactive or imperfect markets, observable data may be limited, requiring adjustments that reduce reliability and increase measurement uncertainty. Market inefficiencies and short-term fluctuations may also yield values that do not reflect long-term benefits (Christensen & Nikolaev, 2009).

IFRS 13 provides guidance for applying the market approach, emphasizing observable inputs and requiring disclosure of methods, hierarchy levels, and assumptions. This ensures consistent application and reinforces the reliability and relevance of fair value measurements.

Corporate Profitability

Profitability, measured by metrics like Return on Capital Employed (ROCE) and Return on Equity (ROE), is the primary indicator of a firm's financial health and operational efficiency, serving as a critical signal to both investors and managers (Penman, 2007). In capital-intensive industries like cement manufacturing, profitability is heavily influenced by asset valuation methods, market conditions, and input cost management. The choice of accounting measurement directly impacts reported profitability; the fair value framework, particularly the market approach which uses observable market prices (IASB, 2011), can introduce volatility into earnings by recognizing unrealized gains and losses (Kieso et al., 2021). This shift from historical cost to fair value aims to provide more relevant information by reflecting current market values, thereby enhancing transparency for investor decision-making (Abiahu et al., 2020). However, this relationship between measurement choice and reported profit also introduces complexity, as market-based valuations depend on managerial assumptions and observable inputs, affecting the reliability and comparability of profitability metrics (Christensen & Nikolaev, 2009; Thesing & Velte, 2021).

Return on Capital Employed (ROCE) measures the pre-tax profit generated per naira of capital invested in the business, reflecting capital productivity and efficiency.

It is a critical metric for asset-heavy industries like cement, where significant investment in property, plant, and equipment (PPE) is required. The valuation method applied to these assets directly impacts the capital employed figure; for instance, fair value revaluations can alter the asset base, thereby influencing the ROCE ratio and reported profitability levels (Penman, 2007; Diewert, 2005).

Return on Equity (ROE) indicates the post-tax profit earned for shareholders' equity, serving as a key indicator of financial performance and value creation. Asset valuation choices, such as using the market approach under fair value accounting, directly affect the equity denominator through revaluation reserves and comprehensive income, consequently shaping ROE outcomes (Kieso et al., 2021). For firms listed on the Nigerian Exchange, ROE is particularly relevant as it influences investor perception, stock valuation, and the assessment of management's stewardship in utilizing shareholder funds (Barlev & Haddad, 2003; Damant, 2001).

Nigerian Cement Industry

The Nigerian cement industry is a concentrated, capital-intensive sector dominated by key players such as Dangote Cement, Lafarge Africa, and BUA Cement. Its structure necessitates massive, long-term investment in specialized assets, including plants, heavy machinery, and substantial inventories, whose valuation and productivity are central to corporate profitability (Onyenkpa et al., 2011; Penman, 2007). The industry's profitability is highly sensitive to macroeconomic factors such as inflation, exchange rates, and interest rates, which directly influence input costs, replacement values, and the fair market valuation of these critical assets. This

sensitivity underscores the industry's inherent exposure to market fluctuations and economic cycles. Consequently, the choice of accounting measurement for these assets whether based on historical cost or current fair value, profoundly impacts reported financial metrics like capital employed and equity. The application of the market approach to fair value, which relies on observable market data and current conditions (IASB, 2011), therefore plays a pivotal role in determining the transparency and volatility of reported earnings, directly linking asset valuation practices to the return on capital employed and return on equity observed by investors and managers (Abiahu et al., 2020; Thesing & Velte, 2021).

Fair Value Measurement Framework

The study is anchored on the fair value measurement framework. Under IFRS, fair value is defined as the exit price in an orderly transaction between market participants at the measurement date, emphasizing a market-based perspective (IASB, 2011). The fair value hierarchy under IFRS 13 prioritizes inputs into three levels: Level 1 uses unadjusted quoted prices in active markets; Level 2 employs other observable inputs like interest rates or credit spreads; and Level 3 relies on unobservable, entity-developed inputs when observable data is unavailable. This structure prioritizes observable inputs to enhance objectivity and comparability, while unobservable inputs increase subjectivity and managerial discretion (Thesing & Velte, 2021). In corporate reporting, fair value provides relevant, timely information that reflects current market conditions, which is crucial for investor decision-making (Abiahu et al., 2020). The hierarchy's relevance to market-based valuations is clear: it ensures that measurements using active market data

(Level 1) are considered most reliable, directly linking the market approach to transparent and comparable financial reporting, thereby affecting key profitability metrics like return on capital employed and return on equity through the recognition of unrealized gains and losses (Kieso et al., 2021; Barth & Landsman, 2022).

Methodology

This study adopted an ex post facto research design. The population consisted of three cement manufacturing firms listed on the Nigerian Stock Exchange: Dangote Cement Plc (DANGCEM), BUA Cement Plc, and Lafarge Africa Plc (WAPCO). These firms were selected because they were among the first to adopt International Financial Reporting Standards (IFRS) and comply with Roadmap Committee recommendations for IFRS-compliant financial statements. Secondary data were collected from the firms’ published annual reports covering 2009–2014, allowing comparison of reported profits before and after fair value measurement adoption. Data were sourced from the NSE website, capturing five-year

periods for each company. The dependent variable was profitability (reported profit), while independent variables were fair value measurement methods Market Approach, Income Approach, and Cost Approach, considered alongside Fair Value Hierarchy levels (Level 1, 2, and 3 inputs). Data analysis employed t-tests to examine differences among the independent variables, comparing reported profits under fair value and historical cost methods. Regression analysis was further applied to assess the relationship between fair value approaches and profitability. This approach ensured a systematic, quantitative evaluation of the impact of fair value measurement on reported profits in Nigerian cement manufacturing firms.

Results and Discussion

Testing of Hypotheses

Ho₁: Market approach does not have significant effect on return on capital employed of listed cement firms in Nigeria.

Table 1: Model Summary of Market approach and return on capital employed

Part A: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.908 ^a	.825	.767	.09286

a. Predictors: (Constant), Market approach

Source: SPSS-generated Output, 2024.

Table 1 presents the model summary between market approach and return on capital employed of listed cement firms in Nigeria This table provides the R value and R² values; the R value indicates a very strong degree of correlation (.91) and the R² value of .82 indicates a variation of 82%. This shows that the model is effective enough to determine the relationship. In this case,

the value of .825 is good. The Adjusted R-square shows the generalization of the results. In this case, the value is .767, which is not far off from .825, so the model is good for making generalization.

Part B: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.122	1	.122	14.163	.033 ^b
	Residual	.026	3	.009		
	Total	.148	4			

a. Dependent Variable: Return on capital employed

b. Predictors: (Constant), Market approach

The table above shows the analysis of variance. From the above table, the F-statistics is 14.163 and the significance level is 0.033. The decision criterion statement states that, if the P value is less than 0.05 the null hypothesis is rejected if otherwise

the null hypothesis is accepted. Hence the P value (Sig) of .033 is less than 0.05 therefore the null hypothesis is rejected. This implies that there is significant effect between market approach and return on capital employed.

Part C: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.559	1.085		-.515	.642
	Market approach	1.152	.306	.908	3.763	.033

a. Dependent Variable: Return on capital employed

Source: SPSS-generated Output, 2024

From the table above, there is significant relationship between market approach and return on capital employed because of the Sig. value which is 0.033, less than the acceptable value of 0.05. Therefore, the analysis suggests that market approach s have a significant relationship with return on

capital employed of listed cement firms in Nigeria.

Ho₂: Market approach does not have significant effect on return on equity of listed cement firms in Nigeria.

Table 2: Model Summary of Market approach and return on equity

Part A: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901 ^a	.812	.749	.09636

a. Predictors: (Constant), Market approach

Source: SPSS-generated Output, 2024

Table 2 presents the model summary between market approach and return on equity of listed cement firms in Nigeria. This table provides the R value and R² values; the R value indicates a very strong degree of

impact (.90) and the R² value of .81 indicates a variation of 81%. This shows that the model is effective enough to determine the effect. In this case, the value of .812 is good. The Adjusted R-square shows the

generalization of the results. In this case, the value is .749, which is not far off from .812, so the model is a good fit.

Part B: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.120	1	.120	12.938	.037 ^b
	Residual	.028	3	.009		
	Total	.148	4			

- a. Dependent Variable: Return on equity
- b. Predictors: (Constant), Market approach

The table above shows the analysis of variance. From the above table, the F-statistics is 12.938 and the significance level is 0.037. The decision criterion statement states that, if the P value is less than 0.05 the null hypothesis is rejected if otherwise the

null hypothesis is accepted. Hence the P value (Sig) of .037 is less than 0.05 therefore the null hypothesis is rejected. This implies that there is significant effect between market approach and return on equity.

Part C: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.062	.685		1.551	.219
	Market approach	.690	.192	.901	3.597	.037

- a. Dependent Variable: Return on equity

The coefficient model reveals the t-calculated value of market approach as 3.597 and a Sig. value of .037. This implies that there is significant relationship between market approach s and return on equity because of the Sig. value which is 0.037, less than the acceptable value of 0.05. Therefore, the analysis suggests that market approach s have a significant impact on return on equity of listed cement firms in Nigeria.

Discussion of Findings

The results indicate a strong positive relationship between the market approach and both ROCE and ROE. This is corroborated by empirical evidence, such as the studies by Mäki et al. (2021), which

highlighted that the market approach provides more reliable and transparent asset valuations, directly impacting profitability measures like ROE in industries with active markets. The high correlation between the market approach and profitability metrics reflects the cement firms' reliance on market-based valuations to present a fairer and more accurate reflection of asset values in line with market conditions.

This finding aligns with the work of Adegboye (2018), who emphasized that in asset-heavy industries such as cement manufacturing, the market approach plays a pivotal role in ensuring financial stability by reducing earnings management and enhancing profitability. Moreover, the study

by Garcia (2021) affirms that market-based valuations improve profitability ratios by providing more timely and accurate reflections of asset values, thus driving both ROCE and ROE.

Conclusion

This study examined the effect of the market approach on the corporate profitability of listed cement firms in Nigeria. Specifically, the study focused on two key indicators: Return on Capital Employed (ROCE) and Return on Equity (ROE).

The empirical findings confirm a statistically significant positive relationship between the market approach and both profitability measures. The regression results demonstrated that the market approach explains a substantial variation in ROCE and ROE, with strong R-squared values of 0.825 and 0.812, respectively. Consequently, the null hypotheses were rejected, leading to the conclusion that the market approach has a significant positive effect on both the return on capital employed and return on equity of listed cement firms in Nigeria. These results underscore the critical role of fair value measurement, specifically the market approach, in enhancing the transparency and relevance of financial reporting in a capital-intensive, market-sensitive industry. By relying on observable market data, the market approach provides a more current and realistic valuation of assets, which in turn leads to profitability metrics that better reflect the firms' true economic performance and resource efficiency. This alignment with market conditions reduces information asymmetry, limits managerial discretion in asset valuation, and offers stakeholders more reliable data for investment and decision-making.

Recommendations

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

1. Nigerian regulatory bodies and standard-setters should strengthen enforcement and provide clearer implementation guidelines for IFRS 13's market approach to ensure consistent, transparent application that enhances the reliability of profitability reporting across the sector.
2. The management of listed cement firms should proactively enhance their financial disclosures by explicitly detailing the observable market inputs and valuation techniques used, thereby improving stakeholder confidence in the reported profitability metrics influenced by fair value measurements.

References

- Adegboye, F. (2018). The impact of accounting standards on financial reporting in emerging economies: Evidence from Nigeria. *Journal of Financial Reporting*, 12(3), 45-56.
- Barlev, B. and Haddad, J.R., (2003). Fair Value Accounting and the Management of the Firm. *Critical Perspectives on Accounting*, 14, 383-415.
- Barth, M. E. & Landsman, W. R., (2022). Fundamental Issues Related to Using Fair Value Accounting for Financial Reporting. *Accounting Horizons*, 94,77-107.
- Barth, M. E. (2021). Fair value accounting: Evidence from investment securities and the market valuation of banks. *The Accounting Review*, 85(2), 275-304.
- Barth, M. E., & Landsman, W. R. (2023). How did financial reporting contribute to the financial crisis? *European Accounting Review*, 19(3), 399-423.

- Barth, M., Beaver, W. and Landsman, W., (2021). The Relevance of Value Relevance Literature for Financial Accounting Standard Setting: Another View. *Journal of Accounting and Economics*, 31, 77–104.
- Christensen, H. B., & Nikolaev, V. V. (2013). Does fair value accounting for non-financial assets pass the market test? *Review of Accounting Studies*, 18(3), 734-775.
- Christensen, H.B. & Nikolaev, V., (2009). Does Fair Value Accounting for Non-Financial Assets Pass the Market Test? The University of Chicago, *Working Paper* 09-12, 1-50.
- Damant, D., (2001). The New World Ahead: *The Internationalization of Accounting Rules. Balance Sheet*, 9(1), 17-21.
- Diewert, W. E. (2005). *The Measurement of Business Capital, Income and Performance*.
- Garcia, M. (2021). Impact of fair value accounting on the profitability of Spanish banks. *Spanish Journal of Finance and Accounting*, 50(3), 315-329.
- Garcia, R. (2021). Influence of fair value measurement on profitability ratios of Portuguese manufacturing firms. *Portuguese Journal of Accounting and Management*, 17(3), 210-225.
- Glautier, M. W. E., & Underdown, B. (2021). *Accounting Theory and Practice*. London: Pearson Education Ltd.
- Glautier, M. W. E., Underdown B., & Morris, D. (2021). *Accounting Theory and Practice*. Edinburgh: Pearson Education Ltd.
- Hodder, L. D., Hopkins, P. E., & Wahlen, J. M. (2023). Risk-relevance of fair-value income measures for commercial banks. *The Accounting Review*, 81(2), 337-375.
- IASB (2011). *International Financial Reporting Standard 13 “Fair Value Measurement”*, available on-line at: <http://eifrs.ifrs.org>.
- IASB and FASB Issue Common Fair Value Measurement and Disclosure Requirements, FASB & IASB News Release dated May 12, 2011, FASB, www.fasb.org/cs/ContentServer?site=FASB&c=FASBContent_C&pagename=FASB%2FFASBContent_C%2FNewsPage&cid=1176158544944.
- Institute of Chartered Accountants of Nigeria (ICAN). (2009a). *Financial Accounting Study Pack*. Lagos: VI Publishers.
- Khan, N. (2019). Effect of fair value accounting on stock prices in the UAE. *Arabian Journal of Business and Management Review*, 9(1), 34-48.
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2021). *Intermediate Accounting*. John Wiley & Sons.
- Mäki, J., Somoza-López, A., & Teixeira, A. (2021). The value relevance of fair value hierarchy: Evidence from European banks. *Journal of International Accounting, Auditing and Taxation*, 42, 100361.
- Onyenkpa, V., Obayemi, W., Ogungbenro, T., Aibangbee, A., & Alao, A. (2011). The Impact of IFRS on Tax in Nigeria. KPMG, www.kpmg.com/NG/en/IssuesAndInsight... retrieved on 10/4/2013.

Pandey, I. M. (2015). *Financial management*. Vikas Publishing House.

Penman, S. H. (2007). Financial Reporting Quality: is Fair Value a Plus or a Minus?

Penman, S. H. (2013). *Financial statement analysis and security valuation*. McGraw-Hill/Irwin.

Ross, S. A., Westerfield, R. W., & Jaffe, J. (2016). *Corporate finance*. McGraw-Hill Education.

Thesing, J & Velte, P. (2021). Do fair value measurements affect accounting-based earnings quality? A literature review with a focus on

corporate governance as moderator. *Journal*.

Tutorial presented at the University Autonomia of Barcelona, Spain, September 21-22.

Zhang, Y. (2022). Fair value measurement and earnings management in Chinese manufacturing firms. *China Journal of Accounting Research*, 15(1), 73-87.

Zhou, Y. (2022). The influence of fair value measurement on dividend policy in Chinese state-owned enterprises. *Journal of Chinese Economic and Business Studies*, 20(2), 175-188.