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Assessment of Fair Value Measurement for Financial Reporting in Industrial Manufacturing Firms in Nigeria

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Abstract: Fair value measurement in financial reporting has become increasingly prevalent, marking a departure from traditional historical cost accounting. This study assesses the application of fair value measurement in industrial manufacturing firms in Nigeria, exploring its opportunities and challenges within the unique economic and regulatory context. The research employed content analysis of financial statements from seven listed industrial manufacturing companies in Nigeria, covering the period from 2013 to 2022. The findings reveal that fair value measurement is applied to varying degrees across financial instruments, property, plant and equipment, impairment assessments, investment property and intangible assets. Also, the study highlights the benefits of fair value measurement, including reflecting true economic value, enhancing transparency, facilitating better decision-making, mitigating risks, and attracting investment. However, challenges such as valuation complexity, subjectivity, illiquid markets, regulatory compliance, and potential volatility in reported financial results are also discussed. The study concludes that adherence to fair value accounting principles and observance of financial reporting qualities can enhance the usefulness of corporate financial reports for stakeholders.

Keywords: Fair Value Measurement; Financial Reporting; Industrial Manufacturing; IFRS 13

1. Introduction

Financial reporting is critical in informing stakeholders about a company's financial performance and position. The financial reporting qualities provide objective information that is useful to analysts in evaluating the financial soundness and prospects of a company (Osanyinbi et al., 2023). Historical cost is a foundational concept in financial reporting, representing the value of an asset as recorded on a company's balance sheet at the time of its acquisition. It is based on the actual amount paid for the asset, including all costs necessary to acquire it and prepare it for its intended use. Historical cost is considered objective because it is based on actual transactions and can be verified through documentation such as purchase invoices, contracts, and receipts (Kieso et al., 2017). It provides a

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straightforward and easy-to-understand method of valuing assets. This simplicity can be beneficial for users of financial statements who may not have expertise in finance or accounting. Historical cost provides stability in financial reporting because it does not fluctuate with changes in market conditions (Warren et al., 2019). This stability can help reduce volatility in reported financial results. Advocates argue that historical cost is a reliable measure because it is based on actual past transactions, which are less subject to manipulation or bias compared to estimates of fair value (Spiceland et al., 2020). Historical cost is often associated with the principle of conservatism, which suggests that assets should be valued at their original cost or lower if their market value has declined (Kieso et al., 2017). This can lead to more cautious reporting of assets' values, particularly during economic uncertainty. Critics argue that historical cost may not accurately reflect the current value of assets, particularly in periods of inflation or rapidly changing market conditions (Warren et al., 2019). Additionally, it does not account for factors such as changes in technology or market demand that may impact an asset's value over time.

Fair value accounting has become increasingly prevalent in the global financial reporting landscape, marking a significant departure from traditional historical cost accounting (Barth, Landsman, & Lang, 2008). The adoption of fair value accounting standards is driven by efforts to enhance transparency, relevance, and comparability in financial reporting. (Abiahu et al., 2020). Fair value measurement in financial reporting refers to the valuation of assets and liabilities based on their current market prices, reflecting the concept of what an asset or liability would be worth if sold in an orderly transaction between market participants (Vu & Bui, 2021). This approach contrasts with historical cost accounting, which values assets at their original purchase prices.

Nigeria is one of Africa's largest economies and has a diverse industrial manufacturing sector that encompasses various subsectors such as food and beverage, textiles, chemicals, machinery, and automotive (World Bank, 2022). The manufacturing sector plays a significant role in the country's economic development, contributing to employment generation, GDP growth, and industrialization (Aigbokhan, 2018). For industrial manufacturing firms in Nigeria, fair value measurement presents both opportunities and challenges. On one hand, fair value accounting can provide more relevant and timely information about the value of assets, particularly in industries where market prices are readily observable, such as commodities or certain types of machinery. This information can be useful for decision-making, risk management, and attracting investment (Okoye & Emenyonu, 2019). On the other hand, there are several challenges associated with implementing fair value measurement in the context of industrial manufacturing. These challenges include limited availability of market data, valuation complexity due to a diverse range of assets, including property, plant, and equipment (PP&E), subjective judgments, and assumptions, which may introduce estimation uncertainty, particularly for assets or liabilities with limited observable market data (Abdul & Kamaruzaman, 2017).

Nigeria is a resource-rich country with a diverse economy, including sectors such as oil and gas, agriculture, manufacturing, and services (World Bank, 2022). However, the Nigerian economy is characterized by volatility due to factors like fluctuating oil prices, political instability, infrastructure challenges, and currency fluctuations (Ogundipe & Ekpenyong, 2018). These economic conditions can impact the fair value of assets and liabilities, making accurate valuation crucial for financial reporting. Additionally, the Nigerian regulatory environment is still evolving, requiring continuous updates and enhancements to accounting standards and enforcement mechanisms (Ogundipe & Ekpenyong, 2018).

Assessing fair value measurement for financial reporting in industrial manufacturing firms in Nigeria requires careful consideration of the opportunities and challenges associated with implementing fair value accounting standards within the unique economic, regulatory, and operational context of the Nigerian manufacturing sector. It also underscores the importance of robust valuation methodologies, transparent disclosure practices, and effective risk management strategies to ensure the reliability and relevance of fair-value information for stakeholders.

2. Literature Review

2.1. Conceptual Review

2.1.1. Fair Value Accounting

IFRS 13 defines fair value as the amount that would be obtained from selling an asset or the amount that would be paid to transfer a liability in a transaction that is conducted in an organized manner between participants in the market at the specific date of measurement (also known as an exit price). The definitions of fair value emphasize that it is an assessment based on market conditions, rather than specific to a particular company (IASB, 2012).

IFRS 13 provides a single framework for measuring fair value and requires disclosures about fair value measurements. IFRS 13 mandates disclosures about fair value measurements and offers a unified framework for doing so. It employs a fair value hierarchy that classifies valuation inputs into three tiers, with an "exit price" notion as its foundation, and measures fair value based on market conditions rather than entity-specific metrics. In this hierarchy, quoted prices in active markets are at the top, observable inputs are at the second level, and unobservable inputs are at the bottom. The most fundamental input that has any bearing on a fair value measurement determines how to classify the measurement. Consideration of asset attributes, assumption of an orderly transaction, use of the major or most advantageous market, and incorporation of non-performance risk are all aspects of fair value that the standard addresses. Methods of valuation such as the income method, the market approach, and the cost approach are detailed in it. Users should be able to comprehend the valuation methods, inputs, and the impact on profit or loss of measurements utilizing substantial unobservable inputs (Level 3). Disclosures, such as reconciliations and sensitivity analyses for Level 3 data, are specific to the fair value hierarchy level. With effect from January 1, 2013, IFRS 13 applies to all yearly periods.

2.1.2. Financial Reporting Quality

According to Okougbo and Okike (2015), financial report readers demand information to assess a reporting organization's health. Financial reporting has essential and improving qualities. These attributes aim to prevent financial reporting falsification. Relevance and faithful representation are important qualitative features, while understandability, dependability, comparability, verifiability, and timeliness enhance them (IASB, 2018). The qualitative features of relevance suggest that the financial report's material should have predictive and feedback value and influence user decisions. According to faithful representation, or reliability, financial reporting should be complete and neutral. The comparability of financial information suggests that corporate stakeholders should be able to compare an organization's financials to others in the industry. These comparable qualitative qualities allow a company financial report user to evaluate and make judgments on industry players' relative financial strengths, weaknesses, opportunities, and dangers across time. Verifiability measures how well financial data is replicated using the same economic data and assumptions.

2.1.3. Financial Instruments (IFRS 7 and IFRS 9)

IFRS 7 (Financial Instruments: Disclosures) & IFRS 9 (Financial Instruments)

These standards require disclosures about the fair value of financial instruments and set out principles for recognizing, measuring, and providing disclosures for financial instruments. IFRS 9 particularly emphasizes fair value in the classification and measurement of financial assets and liabilities, impairments, and hedging. Fair value is used here to reflect a realistic valuation of financial assets and liabilities, especially relevant for derivatives and complex instruments.

IFRS 9 introduces a classification model for financial assets based on the business model and contractual cash flow characteristics. Financial assets are classified into: Amortized Cost: For assets held in a business model focused on collecting contractual cash flows, typically measured at amortized cost. Fair Value Through Other Comprehensive Income (FVOCI): For assets held in a business model that involves both collecting contractual cash flows and selling, fair value changes are recorded in other comprehensive income. Fair Value Through Profit or Loss (FVPL): For assets that do not meet the criteria for amortized cost or FVOCI, fair value changes are recognized directly in profit or loss. This classification ensures that the measurement of assets aligns with the business's objectives, providing a more accurate depiction of financial performance.

IFRS 9 introduced an expected credit loss (ECL) model for recognizing impairments on financial assets measured at amortized cost or FVOCI. Unlike the previous incurred loss model, ECL requires entities to recognize potential credit losses earlier by estimating future cash flow shortfalls over the life of the asset. This forward-looking approach enhances the accuracy of credit risk reporting and improves transparency for stakeholders.

Hedge Accounting: IFRS 9 aims to align hedge accounting more closely with an entity's risk management strategies. By allowing more types of instruments and risk components to qualify for hedge accounting, the standard makes it easier to manage and represent financial risks accurately. Fair value is central in measuring hedging effectiveness, especially in fair value hedges, where both the hedged item and hedging instrument are measured at fair value. The standard's approach allows financial statements to better reflect risk mitigation activities.

2.1.4. Financial Assets

Cash and Cash Equivalents: Cash on hand and in the bank, along with short-term investments that are easily convertible to cash with little risk of value change. Trade Receivables: Amounts due from customers for goods or services provided, typically classified as amortized cost. Investments in Equity Instruments: Shares in other companies, such as common stocks. Depending on the business model, they may be classified at fair value through profit or loss (FVTPL) or fair value through other comprehensive income (FVOCI). Debt Instruments: Bonds, loans, or other debt securities purchased by the company. These may be measured at amortized cost, FVTPL, or FVOCI based on the business model and cash flow characteristics. Derivative Financial Assets: Financial contracts like futures, options, or swaps, usually held for hedging or trading purposes and classified as FVTPL. Loans and Advances: Funds lent to third parties, generally measured at amortized cost if they meet specific criteria under IFRS 9.

2.1.5. Financial Liabilities

These includes trade and other payables, loan payables and borrowings. Trade payables are classified as current liabilities due to their short-term nature while borrowings are spilt into current and non-current liabilities. Borrowings included in non-current liabilities are those with maturities greater than 12 months after the reporting date. Financial liabilities were initially recorded at fair value, as stated in the financial statements of the selected companies. Afterward, they were evaluated at amortized cost using the effective interest technique, except for those held for trading or derivatives, which are assessed at fair value via profit or loss (FVTPL). Additionally, certain financial obligations, such as contingent consideration in a company merger, were also assessed at fair value via profit or loss (FVTPL). Trade Payables: Amounts owed to suppliers for goods or services received, usually measured at amortized cost. Borrowings (Bank Loans, Bonds): Long-term and short-term loans or bonds issued, typically classified at amortized cost. Derivative Financial Liabilities: Contracts like futures, options, or swaps held for hedging or trading. These are usually classified as FVTPL. Lease Liabilities: Obligations under lease agreements that meet the criteria for financial liabilities, measured at amortized cost or according to the specific terms. Convertible Bonds: Bonds that can be converted into a predetermined number of equity shares, which include both a financial liability (the debt) and an equity component.

2.1.6. Investment Property (IAS 40)

According to IAS 40 (Investment Property), investment property is defined as property (land or a building, or part of a building, or both) held by an owner or lessee to earn rentals or for capital appreciation, or both, rather than for use in the production or supply of goods or services, for administrative purposes, or for sale in the ordinary course of business. Land Held for Long-Term Capital Appreciation: Land purchased for the purpose of benefiting from an increase in its market value over time, without immediate plans to use it in operations or sell it as inventory.

Investment property include: Land acquired but not yet assigned a specific purpose, with the intent of generating value through appreciation or future rental income, buildings held and rented out to tenants as a source of rental income, rather than being used by the owner in its operations, buildings in the development phase intended to be used for rentals or capital appreciation when completed. Properties rented to tenants under operating leases, where the lessor aims to earn rental income. Sublet Property by a Lessee (Right-of-Use Asset): When an entity leases a property and then sublets it to another party to earn rentals. Under IFRS 16, the right-of-use asset arising from this lease is treated as investment property if it meets the criteria of IAS 40. Investment properties are typically measured either using the cost model (depreciated cost less any accumulated impairment losses) or the fair value model (measured at fair value, with changes recognized in profit or loss).

2.2. Theoretical Review

In the late 1970s, economists Jensen and Meckling developed agency theory, which examines principal-agent relationships in organizations. Agency theory suggests that shareholders, managers, and creditors may have conflicting interests in fair value calculation. Fair value measurement estimates the market value of assets, liabilities, and equity instruments, which affects stakeholders' financial statements and decision-making. Agency theory says managers may favor themselves over shareholders. Managers may be incentivized to manipulate asset and liability valuations for personal

gain or performance targets. Fair value measurement requires relevant data. Agency theory recognizes that not everyone has access to information. As agents, managers may know more about the company's assets and obligations than shareholders or creditors. This knowledge imbalance can make fair asset and liability valuation difficult. Agency theory states that contracts and monitoring procedures are necessary to align principals (shareholders and creditors) and agents (managers). Fair value measuring involves transparent and reliable reporting so stakeholders may verify values. Effective contracting and monitoring can reduce agency conflicts and promote fair value measurement.

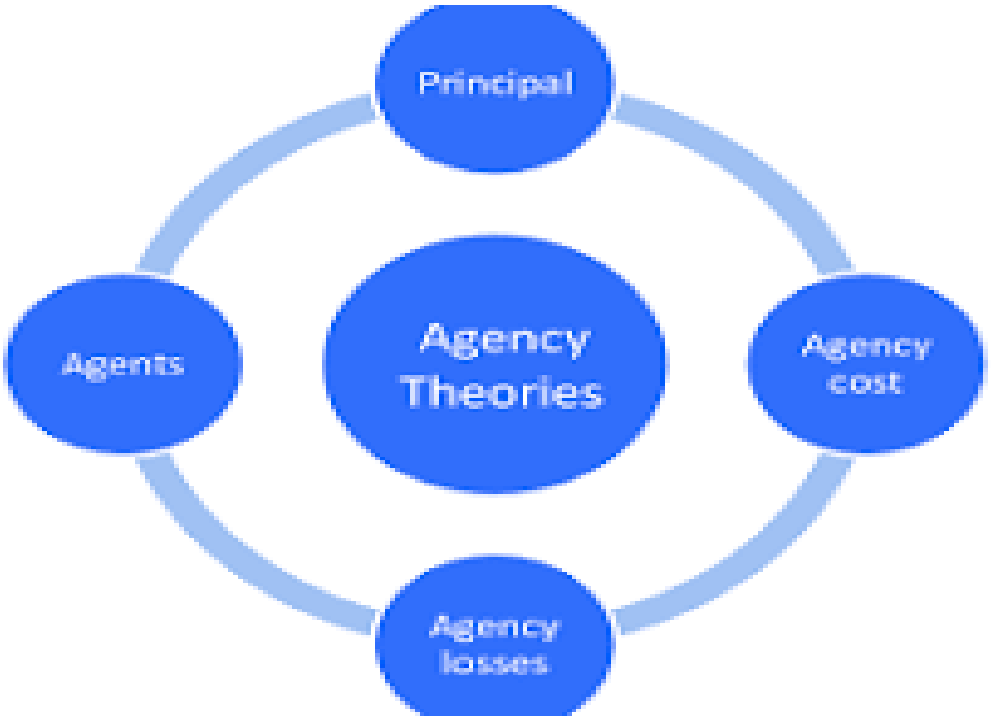

Figure 1. Agency Theory

Sources: SpringerLink

2.3. Empirical Review

Okafor and Ogiedu (2012) investigated the perceived concerns associated with the implementation of fair value accounting in Nigeria. The study utilized a questionnaire survey to gather data from a subset of financial auditors. The data were examined utilizing the Z Score. The study concluded that financial statements generated using fair value accounting are more pertinent than those prepared using historical cost accounting. The study additionally discovered that auditors have more complex technical obstacles when dealing with fair value accounting compared to historical cost accounting. Furthermore, the study concludes that fair value accounting is unsuitable for the Nigerian context. The study highlighted the need to restrict fair values to assets and liabilities that have active markets and stressed the need for auditors to have sufficient training in the technical aspects of fair value accounting.

Enahoro and Jayeoba (2013) utilized a literature review methodology to investigate the fundamental nature of fair value measurement and disclosure in fair value accounting. Quality characteristics serve

as the foundation for the development of accounting theories, as they are crucial for the preparation and presentation of financial statements to achieve their objectives. The study highlighted the importance of IFRS 13, which establishes a comprehensive framework for assessing fair value. It also mandates the publication of fair value assessments, intending to enhance consistency and comparability in such measurements and their accompanying disclosures. Advocates claim that adopting this approach will simplify accounting regulations and hence enhance clarity in financial disclosure. The study argued that the dependability of the fair value measurement is contingent upon the presence of an active market.

Holanda and Magnusson (2015) conducted a study to determine the impact of IFRS 13 on the level of information provided for investment properties in European real estate companies. This is particularly relevant as investment properties make up a significant portion of assets in the real estate industry. A thorough analysis of this industry was conducted, resulting in the selection of 77 European real estate firms to form the sample. The study conducted a comparative analysis of the sample companies' annual reports for the periods immediately before and after the implementation of IFRS 13. IFRS 13 has been found to impact the level of transparency in the reporting of investment properties inside European real estate enterprises. The general level of adherence to regulations is very high, and the standard of providing information has improved with the introduction of IFRS 13.

Oyewo (2020) examined the spread of fair value measurement in Nigeria, specifically looking at how widely it is adopted and the methodologies used to determine value by reporting businesses. The study found that the use of fair value measurement is moderate overall, but there are notable variations in its application among different reporting entities when valuing financial assets, financial liabilities, investment property, and acquired goodwill and intangibles in a business combination. However, the analysis revealed that there is no notable disparity in the assessment of pension obligations, endowment funds, share-based compensation, property, plants and equipment, and land & buildings. Additional research revealed that the valuation methodologies are applied in the following descending order: market approach, expert estimation, cost approach, and income approach. The market and cost approaches are mostly used to value tangible assets, whereas the market approach is preferred for valuing financial instruments. Expert assessment is better suitable for valuing intangible assets and liabilities.

Adeyemi and Kargi (2022) examined how disclosing the hierarchy of fair value measurement for financial instruments affects the use of cosmetic accounting methods in Nigerian deposit money banks (DMBs). A sample of 14 DMBs was utilized, based on their audited annual reports spanning from 2012 to 2018. The study found that fair value measures at levels one and two have a negative and substantial impact on earnings management, while fair value measurements at level three had a positive and significant impact on earnings management practices. The study stressed the importance of regulatory authorities establishing a dynamic market for financial instruments to effectively accomplish the underlying goal of fair value. The authors emphasized the necessity of establishing a robust supervisory and regulatory framework to address the uncertainty and ambiguities related to the operations of the level three fair value hierarchy.

Osanyinbi et al. (2023) investigated the idea of fair value measurement and its impact on the financial reporting quality of items in insurance companies' financial statements. The study used a survey approach and questionnaire as research tools to collect data from professional accountants in certain listed insurance companies in Lagos state. The data collection is done through a convenience sample strategy. The study found a strong correlation between fair value measurement and the quality of

financial reporting. It also determined that fair value measurement had a significant impact on financial reporting quality across all levels of the hierarchy. The study found that adhering to financial reporting standards when measuring fair value will help in creating corporate financial reports that are valuable for analysts to evaluate a company's current and prospects.

Empirical studies have found mixed results regarding the reliability and relevance of fair value measurements in the manufacturing sector. Some studies suggest that fair value accounting enhances the transparency and comparability of financial statements, while others highlight concerns about the accuracy and reliability of fair value estimates, particularly during economic downturns. These divergent results as regards the application of fair value measurement in financial reporting call for further research for more exploration of the application of fair value accounting as a measurement for the basis of financial reporting. This necessitated expanding the scope of the study of the assessment of financial statements to the year 2022 of the sampled industrial manufacturing firms in Nigeria as it was observed that none of the previous studies focused specifically on Industrial manufacturing firms. This is a very good gap that this study will fill. Fair value reporting provides stakeholders with transparent and accurate information about the value of assets, liabilities, and equity. This is particularly important in the industrial manufacturing sector where assets such as machinery, equipment, and inventory play a significant role in determining the financial health of a company. Fair value reporting helps in identifying and managing risks associated with fluctuations in asset values. In the industrial manufacturing sector, where assets are subject to depreciation and obsolescence, accurate valuation is essential for effective risk management.

3. Methodology

3.1. Research Design

The study reviewed relevant empirical studies that explored the rationale for fair value accounting as a measurement of accounting and financial transactions as the basis of financial reporting. The study also employed content analysis of the financial statements of the selected listed industrial manufacturing firms in Nigeria. The content analysis covers the Application of fair value measurement in IFRS 7 & IFRS 9 (Financial Instruments); IAS 16 (Property, Plant & Investment); IAS 36 (Impairment of Assets); IAS 40 (Investment Property); Intangible Assets (IAS38, IFRS 6) The Analysis covers a period of ten years, from 2013 to 2022. The base year 2013 marked the commencement of the implementation of IFRS 13. Also, the year 2013 marked a period of relative economic stability in Nigeria. It was a year where the country's economy was growing steadily, with moderate inflation rates and stable exchange rates. Such economic stability provides a conducive environment for fair value assessments as it minimizes distortions caused by extreme economic fluctuations.

The sample of seven companies was selected from industrial manufacturing companies listed on the Nigerian Stock Exchange as of 2022 based on the availability of their financial statements for the study. A purposive sampling technique was employed in the study. The selected sampled companies are Berger Paints Plc, Cap Plc, Beta Glass Plc, Meyer Plc, Dangote Cement, Lafarge Cement, and BUA Cement.

4. Results and Discussion of Findings

4.1. Results

Table 1. Financial Assets

	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million
INVEST & ACC RECV	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Berger Plc	312	480	266	381	175	190	330	317	305	243
Cap Plc	519	904	131	627	110	172	372	461	551	868
Beta Plc	12,114	12,009	8,014	10,385	14,378	13,438	13,730	12,747	15,792	26,131
Meyer Plc	186	160	198	172	195	158	365	176	194	155
Dangote Cement	37,084	41,717	39,201	106,534	195,861	210,851	198,125	203,151	212,317	301,280
Lafarge Cement	12,818	181,503	233,493	269,692	207,198	200,086	72,100	68,935	71,103	70,260
BUA Cement	782	1,428	483	1,790	2,674	4,044	2,619	83,308	118	17

Source: Annual Financial Statements

Table 1 indicates the values of financial assets of the chosen industrial manufacturing firms in Nigeria. It focused on the values of investments in other companies and accounts receivable.

Within the selected companies, financial assets were originally assessed based on their fair value, which includes transaction expenses, unless they are categorized as fair value through profit or loss (FVTPL). They were then categorized as amortized cost, fair value via other comprehensive income (FVOCI), and fair value through profit or loss (FVTPL). As regards valuation approach, market-based approach is common, utilizing observable inputs like quoted prices in active markets for identical assets (Level 1 inputs). If not available, other models, such as the income approach (present value techniques), were used with observable inputs (Level 2 or Level 3). Trade receivables are commonly valued based on the price agreed upon during the transaction.

Shares in other companies, such as common stocks were classified at fair value through profit or loss (FVTPL) or fair value through other comprehensive income (FVOCI). Trade receivables are commonly valued by all the selected companies based on the price agreed upon during the transaction.

Table 2. Financial Liabilities

	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Berger Plc	572	533	722	807	1,011	989	467	317	1,065	1,251
Cap Plc	519	904	634	1,253	1,131	1,559	1,801	2,201	5,665	3,351
Beta Plc	8,680	6,329	4,386	5,432	6,045	12,696	12,054	12,300	16,682	23,548
Meyer Plc	1,368	1,262	1,093	1,184	1,276	1,046	2,939	627	483	449
Dangote Cement	264,577	343,510	383,201	641,741	657,948	576,823	653,741	843,307	949,179	1,060,775
Lafarge Cement	70,568	62,414	102,531	170,232	369,546	346,744	133,903	126,590	83,103	117,389
BUA Cement	3,470	3,631	4,958	6,019	6,870	9,388	57,730	179,967	105,773	203,547

Source: Annual Financial Statements

Table 2 presents financial liabilities of the selected companies with the focus on non-current borrowing, current borrowing and accounts payable. Long-term and short-term loans or bonds issued, were typically classified at amortized cost. Amounts owed to suppliers for goods or services received, were measured at amortized cost.

4.1.1. Equity Fund

Table 3. Equity Fund

	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Berger Plc	2,476	2,460	2,587	2,604	2,641	2,813	3,073	3,147	3,230	3,323
Cap Plc	1,268	1,181	1,520	2,283	2,242	2,809	2,521	3,745	4,410	6,600
Beta Plc	13,753	15,953	17,578	21,475	25,145	29,628	34,558	37,190	39,134	43,221
Meyer Plc	693	649	685	466	345	663	650	1,767	1,054	1,448
Dangote Cement	550,093	591,886	644,720	797,345	781,360	986,613	897,937	890,970	983,669	1,078,947
Lafarge Cement	171,025	191,643	176,152	248,952	156,987	134,541	344,914	359,638	378,560	416,102
BUA Cement	8,285	9,446	10,145	11,493	14,412	333,488	363,697	375,955	398,116	411,112

Source: Annual Financial Statements

Table 3 presents the equity fund of the selected companies**.** Equity is measured at fair value to provide consistent valuation standards across financial reporting. This framework under IFRS 13 promotes transparency and comparability in equity valuation, ensuring that entities disclose the methods and assumptions used in measuring fair value.

As regards, techniques for fair value measurement, market approach values equity based on comparable transactions or similar assets traded in active markets. Income approach used discounted cash flow (DCF) models to estimate the present value of expected future cash flows. Cost approach reflects the amount required to replace the equity, useful in specialized cases where market or income approaches are less applicable.

Disclosure Requirements: IFRS 13 requires detailed disclosure of fair value measurements, especially if equity is valued using Level 2 or Level 3 inputs. Entities must provide insight into valuation techniques and inputs, as well as sensitivity analyses for Level 3 measurements

4.1.2. Property, Plant and Equipment (IAS 16)

Table 4. Property, Plant and Equipment

	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Berger Plc	876	879	1,046	1,867	2,209	2,410	2,823	2,757	2,534	2,401
Cap Plc	414	400	410	595	691	730	859	828	1,374	1,723
Beta Plc	9,666	9,580	11,657	10,518	11,867	17,518	21,570	22,108	22,512	24,344
Meyer Plc	1,741	1,701	1,654	1,606	1,600	1,565	271	265	277	279
Dangote Cement	581,465	747,794	917,212	1,155,711	1,192,140	1,171,864	1,206,749	1,390,687	1,472,859	1,527,293
Lafarge Cement	213,276	209,145	364,397	390,488	393,652	394,488	369,797	348,328	338,722	341,458
BUA Cement	6,817	7,199	10,119	10,530	12,325	219,573	393,406	523,313	578,888	669,013

Source: Annual Financial Statements

Table 4 presents the values of property, plant and equipment of the selected industrial manufacturing companies. Fair value measurement applies to revaluation models under IAS 16, allowing entities to carry their assets at fair value less depreciation. This is mainly used when entities choose a revaluation model instead of a cost model, enabling them to reflect up-to-date market conditions in the value of their tangible assets.

Within the chosen industrial firms, the value of property, plant, and equipment (PPE) was assessed by subtracting the accumulated depreciation and impairment losses from the original cost. The cost encompasses expenses that are directly linked to the procurement of the assets. Any costs that were likely to provide future economic advantages and could be accurately evaluated were treated as capital expenses.

Valuation approach involved the cost approach, which considers replacement cost or reproduction cost, or the market approach if market prices for similar assets are available.

4.1.3. Impairment of Assets (IAS 36)

IAS 36 uses fair value less costs of disposal as a key part of the impairment testing process. If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recognized. The standard provides guidance on determining fair value in the context of asset recoverability, ensuring that impaired assets are recorded at a realistic, recoverable amount. Companies assessed non-financial assets for impairment anytime events or changes in circumstances suggest that the carrying amount may not be recovered. An impairment loss is recorded when the carrying amount of an asset is higher than its recoverable amount. The recoverable amount is determined by comparing the asset's fair value less costs to sell and its value in use, and taking the higher value. Under the guidelines of IFRS 9, projected credit losses are acknowledged for financial assets.

The impairment of financial assets was determined using the expected credit loss model in accordance with IFRS 9. Fair value less costs of disposal or value in use, whichever is higher. This basis is used for assessing impairment of non-financial assets.

Table 5. Investment Property

	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Berger Plc	559	534	509	488	466	445	424	403	91	50
Cap Plc	10	10	10	10	10	10	7	7	17	11
Beta Plc	0	0	0	0	0	0	29	39	47	51
Meyer Plc	0	0	0	0	0	0	0	121	61	44
Dangote Cement	0	0	0	0	0	0	11,956	12,594	21,343	23,062
Lafarge Cement	6,321	7	0	0	0	0	0	0	0	0
BUA Cement	0	0	0	0	0	0	76	70	76	89

Source: Annual Financial Statements

Table 5 presents investment property. The chosen companies employed either the cost model or the fair value approach to assess investment properties. According to the cost model, investment properties were valued based on their original cost minus the total amount of depreciation and impairment losses. According to the fair value model, investment properties were assessed based on their fair worth, and any changes in fair value were recorded as gains or losses in the financial statements

Table 6. Intangible Assets

	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million	N'Million
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Berger Plc	0	0	0	0	55	33	45	53	36	27
Cap Plc	95	56	75	57	49	25	4	7	197	395
Beta Plc	27	23	18	15	11	10	22	17	13	8
Meyer Plc	0	0	0	0	0	0	0	0	0	0
Dangote Cement	2306	3,698	2,610	4,145	6,355	5,969	3,663	4,554	5,122	6,225
Lafarge Cement	2360	2,191	1,548	1,563	2,634	6,194	3,202	1,939	713	91
BUA Cement	6	5	0.77	3.5	0.58	110,890	2,782	4,285	5,343	7,138

Source: Annual Financial Statements

Table 6 presents intangible assets figures for the selected companies. When measuring fair value, IFRS 13 considers the highest and best use of the intangible asset. It is assumed that the selected companies adhere to the standards set by IFRS 13 in this regard.

IFRS 13 mandates disclosures regarding fair value measurements, particularly for assets measured at fair value on a recurring or non-recurring basis. For intangible assets, this includes detailing the valuation techniques and inputs used, and the impact on profit or loss.

In 2018, BUA cement had #110,890 (in million). This resulted from merger and acquisition. The company applied the acquisition method for its business combination under common control. This requires the company to recognize the identified assets and liabilities at fair value at the date of acquisition, with the excess of the acquisition cost over the identified fair value of recognized assets and liabilities as goodwill. In the reporting year, Cement Company of Northern Nigeria Plc merged with Kalambaina Cement Company Ltd to create an enlarged operations and business entity. However, the merger did not result to creation of goodwill.

4.2. Discussion of Findings

The study found that industrial manufacturing enterprises in Nigeria apply fair value measurement to a considerable extent, with differing levels of adoption for various categories of assets and liabilities. There was no notable disparity in the level of application among reporting entities when it came to valuing financial assets, financial liabilities, property, plants and equipment, land and buildings, investment property, and goodwill and intangibles acquired in a business combination. Additional research revealed that the valuation methodologies were applied in the following descending order: market approach, expert estimation, cost approach, and income approach. The market and cost approaches were mostly used to value tangible assets, whereas the market approach is preferred for valuing financial instruments. Expert assessment is better suitable for valuing intangible assets and liabilities.

This study supports the findings of Osanyinbi et al. (2023) that there is a strong correlation between fair value measurement and the quality of financial reporting. It also confirms that fair value measurement has a notable impact on the quality of financial reporting at all levels of the hierarchy in according with Oyewo (2020). In summary, the results suggest that fair value measurement improves the significance and clarity of financial reporting, offering stakeholders a more precise representation of a company's financial status. This study is consistent with earlier investigations.

4.2.1. Benefit of Application of Fair Value Measurement in Industrial Manufacturing Firms in Nigeria.

The following benefits were derived from both conceptual and empirical reviews of the literature on the application of fair value measurement in financial reporting:

1. Reflects True Economic Value: Fair value accounting guarantees that assets and liabilities are disclosed at their present market values, offering stakeholders a more precise assessment of the company's financial condition. This is especially important in a manufacturing setting where assets such as machinery, inventory, and raw materials are significant components of the balance sheet.

2. Better Decision Making: Precise financial reporting empowers management to make well-informed decisions on investments, expansions, and resource allocation. Management may evaluate the actual

value of the firm and make strategic decisions by understanding the fair value of its assets and liabilities.

3. Enhances Transparency: Fair value accounting improves the clarity of financial reporting by offering precise information regarding the worth of assets and liabilities. Transparency is crucial for investors, creditors, and other stakeholders to evaluate the company's performance and level of risk.

4. Compliance with International Standards: Adhering to fair value accounting principles aligns manufacturing firms in Nigeria with international accounting standards such as IFRS (International Financial Reporting Standards). This promotes comparability of financial statements across firms and jurisdictions, which is important for investors and regulators.

5. Mitigates Risk: Fair value assessment helps in identifying and mitigating risks associated with volatile market conditions. By regularly evaluating the fair value of assets and liabilities, manufacturing firms can anticipate potential losses and take proactive measures to manage risks effectively.

6. Attracts Investment: Transparent and reliable financial reporting, including fair value assessment, instills confidence in investors and creditors. Manufacturing firms in Nigeria that adhere to rigorous accounting standards are more likely to attract investment capital, which is essential for growth and sustainability.

Assessing fair value as a measure of financial reporting in manufacturing firms in Nigeria is crucial for several reasons. Fair value accounting provides a more accurate reflection of a company's financial position by valuing assets and liabilities at their current market prices. In the context of manufacturing firms in Nigeria, where economic conditions can be volatile, assessing fair value becomes even more essential.

4.2.2. Challenges of Application of Fair Value Measurement in Industrial Manufacturing Firms in Nigeria.

Despite the potential benefits of fair value accounting, its adoption poses several challenges and implications for financial reporting in listed manufacturing firms in Nigeria. These challenges that were identified in the previous studies include:

1. Valuation complexity: Manufacturing firms often have a diverse range of assets, including property, plant, and equipment (PP&E), inventories, and intangible assets, which may require complex valuation techniques to determine fair values accurately.

2. Subjectivity and estimation uncertainty: Fair value measurements often involve subjective judgments and assumptions, which may introduce estimation uncertainty, particularly for assets or liabilities with limited observable market data.

3. Illiquid markets: In some cases, industrial manufacturing assets may have limited market liquidity, making it challenging to determine fair values based on observable market prices.

4. Regulatory compliance: Compliance with fair value accounting standards, such as IFRS 13, requires robust internal controls, documentation, and disclosure practices, which may pose implementation challenges for manufacturing firms, particularly smaller or less well-resourced companies.

5. Impact on financial performance: Fair value measurement can lead to increased volatility in reported financial results, particularly during periods of market turbulence or economic uncertainty, which may affect stakeholders' perceptions of a company's financial health and performance.

5. Conclusion and Recommendations

5.1. Conclusion

The incorporation of fair value assessment in financial reporting enhances the amount of information disclosed when compared to alternative accounting metrics like historical cost and deprival value. Fair value accounting requires a corporation to disclose detailed information about the methodology, assumptions, risk exposures, sensitivities, and relevant items that are necessary to create a comprehensive financial report. This study concludes that there is a significant association between fair value metrics and the quality of financial reporting. Furthermore, it establishes that following financial reporting standards when conducting fair value measurements will improve the production of corporate financial reports that hold significance for analysts when assessing a company's present condition and future potential.

5.2. Recommendations

The following recommendations are offered based on the outcome of this study:

1. Robust Valuation Methodologies: Industrial manufacturing firms should establish robust valuation methodologies and internal controls to ensure consistent and reliable fair value measurements. This may involve investing in specialized expertise, developing industry-specific valuation models, and adopting best practices for addressing valuation complexities.

2. Enhance Disclosures and Transparency: To mitigate concerns around subjectivity and estimation uncertainty, manufacturing firms should enhance their disclosure practices related to fair value measurements. This includes providing detailed information on valuation techniques, key assumptions, sensitivity analyses, and the impact of fair value changes on financial performance.

3. Regulatory Support and Capacity Building: Regulatory bodies in Nigeria should provide clear guidance and support to manufacturing firms in implementing fair value accounting standards. This could involve issuing industry-specific guidelines, organizing training programs, and fostering collaborations between firms, professional bodies, and academic institutions to build capacity and expertise in fair value measurement.

5.3. Contributions to Knowledge

1. The study provides a comprehensive assessment of the application of fair value measurement in financial reporting among industrial manufacturing firms in Nigeria, highlighting the benefits, challenges, and implications within the unique economic and regulatory context of the country.
2. The findings reveal that while fair value measurement is applied to varying degrees across different asset and liability categories, its implementation faces challenges due to limited market data, diverse asset types, and estimation uncertainties in the Nigerian manufacturing sector.

3. The study emphasizes the importance of adhering to fair value accounting principles and observing financial reporting qualities to enhance the usefulness of corporate financial reports for stakeholders.
4. The research highlights the need for robust valuation methodologies, enhanced disclosures, and regulatory support to address the challenges associated with fair value measurement in the Nigerian manufacturing context.

5.4. Suggestions for Further Studies

1. Further study can conduct a comparative study to assess the differences in the application of fair value measurement among various sectors (e.g., manufacturing, finance, services) in Nigeria and the factors influencing these differences.
2. Another study can investigate the impact of fair value measurement on the financial performance and risk management practices of industrial manufacturing firms in Nigeria, considering the volatility and uncertainty in the economic environment.
3. A further study can explore the perception and understanding of fair value measurement among different stakeholder groups, such as investors, analysts, and regulators, to identify potential gaps and areas for improvement in reporting and disclosure practices.
4. A further study can investigate the role of corporate governance practices, such as the composition and expertise of audit committees, in ensuring the reliability and transparency of fair value measurements in Nigerian manufacturing firms.
5. Another study can explore the potential impact of emerging technologies, such as blockchain and artificial intelligence, on fair value measurement practices and the reliability of valuation data in the Nigerian manufacturing sector.

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