

Property Investment Measurement (IAS 40) And Quality of Financial Statements of Listed Pharmaceutical Firms in Nigeria

Ibukun Olalekan Fadairo¹, Tunji Trimisiu Siyanbola², Amos Adejare Aderibigbe^{3*}, Adenike Abibat Oyewunmi⁴

^{1,4}Federal University of Agriculture, Abeokuta, Nigeria

^{2,3}Department of Accounting, Crescent University, Abeokuta, Nigeria

Abstract:

Pharmaceutical companies in Nigeria encounter several unique challenges when applying IAS 40 for the measurement of investment properties. These challenges are largely due to the complexity of the standards, management's potential manipulation of financial results, and Nigeria's unique economic and regulatory context. This study investigated the impact of investment property measurement under IAS 40 on the financial reporting quality of listed pharmaceutical companies in Nigeria. A cross-sectional survey design was employed, collecting data from selected pharmaceutical companies using structured questionnaires. The study analyzed responses from 95 employees through multiple regression analysis with SPSS 25. The results indicated that the cost method had a positive insignificant effect on the reliability of financial statements ($\beta_1 = 0.009$; $p = 0.532 > 0.05$). In contrast, the fair value method for measuring investment property demonstrated a positive and significant effect on the reliability of financial statements in Nigerian pharmaceutical companies ($\beta_2 = 0.203$; $p = 0.032 < 0.05$). Similarly, while the cost method had a positive effect on the comparability of financial statements ($\beta_1 = 0.051$), this relationship was not statistically significant ($p = 0.423 > 0.05$). However, the fair value method showed a significant positive effect on the comparability of financial statements ($\beta_2 = 0.355$; $p = 0.017 < 0.05$). The study recommends that Nigerian pharmaceutical firms adopt the fair value method for measuring investment properties to enhance financial statement reliability and comparability, promoting more transparent and accurate financial reporting.

Keywords: Fair value method, financial reporting quality, investment properties, international accounting standards, pharmaceutical companies.

1.0 Introduction

International Accounting Standard 40 (IAS 40) establishes guidelines for the accounting treatment of investment properties, which are distinct from owner-occupied properties and other asset categories. Investment properties are held by entities primarily to earn rental income, achieve capital appreciation, or both, rather than for operational purposes such as production, supply of goods or services, administrative functions, or routine sales (Carbonara & Stefano, 2020). French (2019a) notes that IAS 40 mandates the initial measurement of investment properties at cost, including transaction costs. Following this, entities may opt for either the fair value model or the cost model for subsequent measurement (Shen, 2022). Smit et al. (2022) explain that under the fair value model, properties are revalued at their fair market value, with any resulting gains or losses recognized in profit or loss for the period. In contrast, the cost model values investment properties at cost, minus accumulated depreciation and impairment losses. Adopting the fair value model is in line with the trend towards more relevant, real-time financial reporting, providing investors with a clearer reflection of current market conditions and facilitating more informed decision-making (Nworah et al., 2023). However, this approach also introduces volatility in financial statements, which could affect the perceived stability of an entity's financial position. Pharmaceutical companies in Nigeria have a responsibility to provide comprehensive disclosure of their operational strengths, weaknesses, and prospects to support informed investment decisions. As noted by Shakespeare (2020), the financial reports from these companies are vital for predicting future investment opportunities. In the absence of high-quality financial reporting, investors would face difficulties in making decisions and assessing the performance of the pharmaceutical sector. Financial reporting quality, therefore, refers to the degree to which reported financials accurately reflect a company's operational performance and their usefulness in forecasting future cash flows (Zoidov, 2020). Dănescu and Stejerean (2022) emphasize two key dimensions of financial reporting quality: the first is its relevance to users, ensuring that the information is useful for decision-making; the second focuses on protecting the interests of shareholders and investors. Financial reporting, in essence, involves communicating economic measures, obligations, and accounting data related to an entity's resources and performance to stakeholders with a legitimate interest, thereby facilitating informed judgments and decision-making.

Despite the need to ensure financial reporting quality, pharmaceutical companies in Nigeria face several unique challenges when applying IAS 40 for investment property measurement. Ajayi-Owoeye et al. (2022) raised issues that stem from the inherent complexities of the standard, the intentional distortion of management to present a good-looking financial report, the specific economic and regulatory environment in Nigeria, and the characteristics of the pharmaceutical sector itself.

According to Horno-Bueno et al. (2022), IAS 40 allows entities to choose between the fair value model and the cost model for subsequent measurement of investment properties. Despite this option, (Gulyás & Somogyi, 2019) recorded that the fair value model, which requires periodic revaluation, can present challenges in Nigeria due to the volatility and illiquidity of the real estate market (Oladokun & Mooya, 2023). Frequent fluctuations in property values can lead to significant volatility in financial statements and impact the perceived financial stability of pharmaceutical companies. Additionally, the lack of a robust and transparent property market makes it difficult to obtain reliable and consistent property valuations (Etale & Levi-Owonaro, 2023)

The recognition of unrealized gains and losses has long been a debated topic in accounting. Traditionally, holding gains resulting from fluctuating market prices have been deferred or, when recognized, transferred directly to equity, bypassing the income statement. In recent years, accounting regulators have gradually expanded the use of mark-to-market accounting, a move that has drawn increasing criticism from financial statement preparers. Nevertheless, fair value accounting appears to be gaining wider acceptance, though its impact, whether positive or negative, remains a point of contention (DeFond et al., 2019). In developed economies, fair value accounting has established itself as a measurement approach that many regard as superior to historical cost accounting. However, questions persist about whether fair value accounting truly outperforms historical cost accounting in emerging economies, where institutional environments are less developed. There is also debate over whether the IFRS fair value accounting standards can and should be adopted in these contexts. Although the adoption of IFRS fair value standards is considered beneficial for emerging economies, the process is expected to be particularly challenging due to the lack of key components of a well-functioning capital market, which are essential for the successful implementation of fair value accounting (Olowookere et al., 2022). According to Diantimala and Sofyani (2020), intentional distortion of IAS 40 by management to present more favourable financial reports undermines financial reporting quality. Management may decide to switch between the cost method and the fair value method without good reason or taking into account IAS 8 just to increase their earnings. This practice is often termed "earnings management," and it compromises the reliability and transparency of financial statements (Ajayi-Owoeye et al., 2022). Carbonara and Stefano (2020) and Etale and Levi-Owonaro (2023) also support this assertion as they argue that it erodes investor trust, as users of financial reports depend on accurate information to make informed decisions. Additionally, inflated property values can lead to future write-downs, causing significant volatility in financial performance (Nworah et al., 2023) and causing investors to make wrong decisions. Such distortions violate ethical accounting standards and regulatory frameworks, exposing the company to legal risks and penalties.

Lin and Wang (2017) argue that certain IFRS standards have the potential to distort profits. Thesing (2023) supports this view, noting that accounting choices based on IAS 40 can make financial statement comparability more challenging. A relevant framework for understanding these decision-making choices is Rational Choice Theory, which is designed to aid the decision-making processes. This theory helps explain why and how certain sections or principles may be selectively applied in accounting practices (Smit et al., 2022). However, it is essential to recognize the potential drawbacks of applying Rational Choice Theory to accounting decisions. While it can enhance clarity and support informed decision-making, there is also a risk that it may introduce bias or manipulation into the process.

Several studies have examined IAS 40, but the majority were conducted outside of such as Zoidov (2020); Nworah et al., (2023), and Ghosh et al., (2019). Of the limited research carried out within Nigeria such as Oladokun and Mooya (2023); Olowookere et al., (2022;) and Ajayi-Owoeye et al., (2022), none specifically focused on pharmaceutical companies. This shows that there is a need to add to the existing body of literature from the perspective of pharmaceutical companies. Similarly, other studies have found that the use of IFRS/IAS provides financial officers with greater opportunities to manipulate earnings through non-credible presentations, by taking advantage of the various treatment options allowed by IFRS. This has fueled ongoing debates regarding the use of fair value measurement for investment properties in financial statements and the comparability of accounting choices in the future valuation of these properties. In light of this, the current research aims to build on previous studies by examining "Investment Property Measurement (Cost Measurement vs. Fair Value Measurement) and Financial Reporting Quality of Pharmaceutical Companies in Nigeria."

1.1 Objective of the Study

The primary objective of this study was to assess the impact of investment property measurements (IAS 40) on the financial reporting quality of publicly listed pharmaceutical companies in Nigeria. To achieve this, the study aimed to accomplish the following specific objectives:

- i. Determine the effect of each measurement method of IAS 40 (cost method, fair-value method) on the reliability of financial statements among quoted pharmaceutical companies in Nigeria
- ii. Examine which of the measurement methods of IAS 40 (cost method, fair-value method) affect the comparability of financial statements among quoted pharmaceutical companies in Nigeria.

1.2 Research Hypotheses

The hypotheses are tested at a 5% level of significance.

Ho1: Each measurement method of IAS 40 does not significantly affect the reliability of financial statements among quoted pharmaceutical companies in Nigeria

Ho2: The measurement methods of IAS 40 do not significantly affect the reliability of financial statements among quoted pharmaceutical companies in Nigeria.

1.3 Scope of the Study

The study aimed to evaluate the impact of investment property measurement methods on the financial reporting quality of pharmaceutical companies in Nigeria. It will focus on the two methods for measuring investment properties, as specified by the International Financial Reporting Standards (IFRS), to identify which method better enhances financial reporting quality for these companies. The research will be conducted on five selected pharmaceutical companies in Nigeria, utilizing primary data gathered through structured questionnaires. The questionnaires will be distributed to employees directly involved in the preparation of financial statements in the selected companies.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Investment Property

Investment properties are defined as assets held by businesses to generate additional income through rentals, capital appreciation, or both (Carbonara & Stefano, 2020). These properties are not intended for use in the company's regular business activities, such as producing or supplying goods or services, nor are they held for administrative purposes or sale in the ordinary course of business (Carbonara & Stefano, 2020). As a result, the accounting treatment for investment properties differs from that of properties used in regular operations.

IAS 40 sets out two key criteria for recognizing investment properties in financial statements. According to IAS 40, an investment property is recognized as an asset when (a) it is likely that the entity will receive future economic benefits from the property and (b) the cost of the property can be measured reliably (Zoidov, 2020). Additionally, IAS 40 specifies that an investment property is derecognized (removed from the financial statements) when it is either disposed of or permanently withdrawn from use, with no future economic benefits expected from its disposal (French, 2019b).

At initial recognition, investment properties are recorded at cost, which includes transaction costs. For subsequent measurement, IAS 40 offers two models: (a) the cost model and (b) the fair value model (Sangchan et al., 2020). The selected model must be applied consistently to all investment properties held by the entity, and the policy for subsequent measurement should remain consistent over time (Ilincuță, 2020).

Under the cost model, investment properties are subsequently measured at cost, less accumulated depreciation, and any impairment losses (French, 2019a). This means properties valued using the cost model undergo depreciation over their useful lives and are subject to impairment testing. Income from these properties mainly consists of rental income, while expenses include depreciation, maintenance, and impairment losses.

In contrast, the fair value model measures investment properties at their current fair value. Any gains or losses from changes in fair value are recognized in profit or loss during the period they occur (Liu, 2023). Investment properties under the fair value model are not depreciated or tested for impairment. Instead, the fair value is estimated based on market data, such as rental income from existing leases and other assumptions used by market participants under current conditions (Thesing, 2023). If the fair value cannot be reliably determined, the cost model must be applied, and the property's residual value is assumed to be zero (Oladokun & Mooya, 2023). Under the fair value model, income includes both rental income and unrealized gains from increases in property value, while expenses consist of unrealized losses from decreases in value and maintenance costs.

There are differing views on the use of fair value accounting compared to historical cost accounting. Some researchers argue that historical cost accounting is outdated and inadequate for financial decision-making, particularly during inflationary periods. Critics also point out its failure to account for unrealized increases in asset value and its lack of comparability (Etale & Levi-Owonaro, 2023; Ghosh et al., 2019). As a result, many suggest replacing historical cost accounting with fair value accounting, especially for financial instruments. Fair value accounting is often seen as more relevant than historical cost, without compromising reliability, especially when market prices are readily available (Chen et al., 2021; Liu, 2023; Petrović et al., 2023). Supporters argue that fair value better reflects true economic value rather than simply cost (Ilincuță, 2020) and enhances international accounting harmonization (Chen et al., 2021).

Fair value accounting has garnered growing support from standard setters, international organizations, and scholars. Nworah et al., (2023) argue that fair value accounting is most effective in perfect markets, though alternative approaches exist. Some accounting theorists propose various fair value measures, such as current cost accounting using entry or exit prices, or current purchasing power accounting based on price indices (Smit et al., 2022). When these methods are impractical, internal estimation may be used to determine fair value (Liu, 2023). According to Tang (2023), the debate has evolved from questioning whether fair value should be used to determining how it should be implemented in financial statements.

Despite its growing acceptance, fair value accounting faces opposition, particularly from financial institutions. Many bankers are wary of valuations, with some critics suggesting that banks are only now recognizing the true value of their illiquid assets and may be undervaluing the same securities they previously overvalued. While the IASB views fair value as a solution to measurement challenges, many in the commercial banking sector disagree (Albu et al., 2020).

Critics of fair value accounting raise several concerns. These include the argument that fair value measurements may distort net income by recognizing unrealized holding gains and losses, that they are costly to generate, subject to manipulation, and break the well-established historical cost model (Arsenijević & Spasić, 2023). Diantimala and Sofyani (2020) argue that implementing market values is flawed, pointing to issues like excluding held-to-maturity securities from revaluation and using fair values for derivatives when managers have significant discretion in calculating them (Tang, 2023). Such practices risk misleading investors, as fair value estimates may prove inaccurate (Thesing, 2023).

The banking industry's opposition to fair value accounting largely stems from concerns about the volatility it introduces to reported earnings. The reliance on fair values, particularly for assets not actively traded on liquid secondary markets, heightens the risk of reporting artificial volatility. Moreover, if assets and liabilities are held to maturity, the volatility reflected in financial statements may be misleading. Carbonara and Stefano (2020) contend that fair value accounting can produce distorted results, especially during market panics when markets are neither liquid nor orderly.

Dănescu and Stejerean (2022) argue that fair value measures are not relevant because they do not reflect the asset's value-in-use and are therefore not helpful in predicting future cash flows for the firm. They also criticize the reliability of fair value estimates due to the high level of subjectivity involved, which creates the potential for managerial misuse. The introduction of IFRS, particularly IAS 39, into Europe, sparked strong objections from the banking sector (Gulyás & Somogyi, 2019). This led the European Union to adopt IAS 39 with certain exclusions, creating obstacles to IFRS convergence and challenges for auditors in deciding which reporting standards to reference (Albu et al., 2020).

Financial markets in developing countries like Jordan are inherently volatile, driven by future expectations (Chen et al., 2021). These markets often behave like those for "credence" goods, influenced by psychological factors rather than search or experience goods (Diantimala & Sofyani, 2020). Uncertainty, coupled with strategic behavior by some traders, can push markets far from fundamental values, exacerbating volatility.

2.1.2 Financial Reporting Quality

Financial reports play a crucial role in providing timely and fair financial information to users. For pharmaceutical companies, the information disclosed in financial statements must be comprehensive, objective, timely, easy to understand, and comparable. This ensures the transparency and integrity of the company's financial position, business performance, cash flows, and other relevant information (DeFond et al., 2019; Horno-Bueno et al., 2022). Such information is essential for users to make informed decisions.

Liu (2023) defines financial reporting quality (FRQ) as the reliability of financial statements in conveying accurate information about a firm's performance, especially its expected cash flows, to shareholders. This aligns with earlier research (Oladokun & Mooya, 2023), which emphasizes that the purpose of financial statements is to guide current and prospective investors in making informed choices. Therefore, financial statements must provide reliable, comparable, and understandable data (Shakespeare, 2020). However, Patsis et al. (2023) argue that financial reports cannot be entirely free from bias, as they often rely on estimates and assumptions made under uncertainty. Additionally, financially distressed companies may manipulate reports to improve their financial appearance. Nevertheless, high-quality financial statements can significantly influence the strategic decisions of both managers and investors. Tang (2023), Arsenijević and Spasić (2023); and Diantimala and Sofyani (2020) assert that such statements can enhance investor engagement.

For stakeholders in Nigerian pharmaceutical companies, the reliability and comparability of financial statements are essential for making sound decisions. Reliability refers to the extent to which financial information accurately reflects a company's financial performance and position, free from material errors and bias (Diantimala & Sofyani, 2020). In the pharmaceutical industry, where R&D costs, regulatory approvals, and market conditions significantly influence financial outcomes, ensuring reliable financial reporting is challenging. The inherent complexity and volatility in drug development processes can lead to significant estimates and judgments, potentially impacting the reliability of financial statements (Chen et al., 2021). For example, estimating the useful life of patents or the probability of regulatory approval for new drugs involves significant uncertainty. As Ghosh et al. (2019) noted, the presence of such estimates and assumptions can introduce bias and reduce the perceived reliability of financial reports.

Comparability allows users to recognize similarities and differences in financial reports across various entities and over different periods (French, 2019b). For pharmaceutical companies in Nigeria, comparability is vital for benchmarking performance against local and international peers. However, variations in accounting practices, especially in areas like R&D capitalization, can hinder comparability (Nworah et al., 2023). Nigerian pharmaceutical companies might adopt different approaches to recognizing and measuring R&D costs, leading to inconsistencies in financial statements. This lack of standardization can obscure true performance comparisons, making it difficult for investors to assess relative performance accurately (Oladokun & Mooya, 2023)

Furthermore, the regulatory environment in Nigeria poses additional challenges to both reliability and comparability. Inconsistent enforcement of accounting standards and varying levels of compliance can result in disparities in financial reporting quality (Ajayi-

Owoeye et al., 2022). The adoption of International Financial Reporting Standards (IFRS) was intended to improve comparability across financial reports; however, challenges in practical implementation remain. Although IFRS prescribes consistent treatment for certain transactions, variations in local interpretations and applications can still arise, impacting both the reliability and comparability of financial information (Bala et al., 2020).

2.2 Theoretical Review

This study is grounded in signaling theory, first introduced by Michael Spence in 1973. Signaling theory suggests that individuals or organizations take specific actions to communicate information about their quality or characteristics to others. In the context of financial reporting, companies may adopt particular accounting standards or practices to signal their financial health and performance to investors and other stakeholders.

Signaling theory posits that companies communicate their quality and performance to the market through various signals, with financial reporting being a primary method. When companies adhere to IAS 40, which governs the accounting for investment properties, they provide a transparent and fair representation of their assets' value. This adherence acts as a positive signal to investors and stakeholders about the company's commitment to high standards of financial reporting (Cardao-Pito, 2020).

IAS 40 mandates that investment properties be measured at fair value, with any changes in value reflected in the income statement. This level of transparency helps reduce information asymmetry between management and stakeholders, offering a clearer view of the company's financial health and expected future cash flows (Shakespeare, 2020). Companies that accurately follow IAS 40 signal to the market that they are reliable and adhere to international standards, which can enhance their reputation and attract investment (Smit et al., 2022). Conversely, if a company fails to comply with IAS 40 or manipulates valuations, it sends a negative signal, indicating potential management opportunism or financial instability. This can erode investor confidence and impair the perceived quality of the company's financial reporting (Tang, 2023).

Critics have pointed out that signaling theory falls short of capturing the full complexities of financial reporting and investment decisions. They argue that focusing solely on compliance with accounting standards as a signal of a company's financial health can overlook other key factors, such as the integrity of management, industry trends, and broader macroeconomic conditions. Furthermore, signaling theory assumes that investors are rational and fully informed, which is not always reflective of real-world scenarios. Despite these limitations, signaling theory remains a useful framework for analyzing the relationship between financial reporting and investor behavior.

2.3 Empirical Review

Several studies have explored the measurement of investment properties at fair value and the disclosures of quoted companies, but limited attention has been given to the pharmaceutical sector. This paper focuses on the measurement of investment properties and financial reporting among listed pharmaceutical companies in Nigeria.

Numerous scholars have debated the recognition versus disclosure of fair value, with many concluding that these two approaches are not interchangeable. Zoidov (2020) found that companies using the fair value model, compared to those using the cost model, experience reduced information asymmetry and greater liquidity, suggesting that market participants do not consider fair value disclosure as equivalent to its recognition in the financial statements. Liu (2023) also found that both disclosed and recognized fair values are useful to investors, although their usefulness depends on factors such as the level of measurement error and the source of estimates.

Recent studies have examined the relationship between fair value and investment property. One study conducted a value relevance analysis for several European real estate companies, concluding that companies with a higher proportion of property investments are more likely to disclose prospects and choose the fair value model to reduce information asymmetry. Similarly, Nworah et al. (2023) examined which firms adopted fair value accounting for non-financial assets after IFRS adoption, concluding that real estate companies are more inclined to adopt fair value measurement, as it better reflects their economic performance. They also highlight that historical cost provides less relevant information compared to fair value.

However, adopting the fair value model, while offering more relevant information, may result in a loss of reliability (Albu et al., 2020). Carbonara and Stefano (2020) argue that fair value may compromise the reliability of financial statements, as management estimates cannot capture the full scope of market information and are susceptible to manipulation. Another study suggests that a realistic and reliable fair value measurement does not always depend on an active market. Shen (2022) notes that investors differentiate between recognized cost, recognized fair value, and disclosed fair value of investment property in listed real estate companies across four European countries with different market characteristics.

Building on this literature, this study sought to generalize these findings from the real estate sector to pharmaceutical companies in Nigeria, where investment properties are not core to their business. This research contributes to the ongoing debate on fair value versus historical cost by evaluating whether applying these standards is relevant for companies where investment properties represent a small portion of their assets, potentially limiting the impact of such measures.

While several studies on IAS 40 have been conducted, the majority are outside of Nigeria (see Zoidov 2020; Nworah et al., 2023 and Ghosh et al., 2019). Even the few Nigerian studies (Oladokun & Mooya, 2023; Olowookere et al., 2022 and Ajayi-Owoeye et

al., 2022) have not specifically focused on pharmaceutical companies, highlighting a gap in the literature. Additionally, prior research has shown that IFRS/IAS provides financial officers more opportunities to manipulate earnings through various accounting treatments, raising concerns about the comparability and credibility of financial statements.

This study sought to address these gaps by examining the relationship between investment property measurement (cost versus fair value) and financial reporting quality in Nigerian pharmaceutical companies, building on and advancing previous research.

3.0 Methodology

This study focused on the quantitative research design which incorporated surveys and statistical analysis to gather and analyze data. A cross-sectional survey research design was adopted for this study in order to collect data from specific pharmaceutical companies in Nigeria through structured questionnaires. The population comprised 7 quoted pharmaceutical companies in Nigeria out of which 5 were purposively selected. The pharmaceutical companies are Ekocorp, Neimeth, Fidson, May and Baker, Mecure Industries, and Morrison Healthcare. These pharmaceutical companies are selected based on the top pharmaceuticals in Nigeria using market capitalization. From this, twenty (20), employees were selected from each company. The selected employees were drawn from the finance and account department of each company. A questionnaire was used to collect data and it was distributed online through Google form. Multiple regression was used to test the study hypothesis using SPSS 25.

4.0 Results and Findings

This section presents the findings from the questionnaires distributed to respondents. Out of 100 questionnaires distributed to employees in the finance and accounting departments of five pharmaceutical companies, 95 were successfully retrieved, resulting in a 95% response rate. Five questionnaires were not recovered due to incomplete records. This section is divided into two parts: descriptive and inferential statistics. The descriptive portion outlines the demographic information of the respondents, while the inferential section tests the study's hypotheses using multiple statistical analyses.

Table 4.1 Demographic Characteristics of Respondents

Variables	Category	Frequency	Percentage
Gender	Male	41	43.2%
	Female	54	56.8%
Marital status	Single	45	47.4%
	Married	50	52.6%
Highest Educational Qualification	HND	34	35.8%
	BSc	49	51.6%
	Others	12	12.6%
Respondents Experience	Below 5 years	22	23.2%
	5 - 10 years	38	40.0%
	10 – 15years	14	14.7%
	15 – 20 years	16	16.8%
	Above 30 years	5	5.3%

Source: Researcher’s Field Survey Results (2024)

Table 4.1 illustrates that the questionnaires were distributed across five pharmaceutical companies. In terms of gender, approximately 43.2% of the respondents were male, while 56.8% were female, indicating a balanced distribution, though females represented a slightly larger portion. Regarding marital status, 47.4% of respondents were single, and 52.6% were married, suggesting that most participants were in committed relationships.

In terms of education, 35.8% of respondents held HND qualifications, 51.6% had a Bachelor's degree (BSc), and 12.6% held other qualifications. This indicates that the majority of participants possessed at least a Bachelor's degree, with a notable number holding qualifications other than HND or BSc.

When examining work experience, 23.2% had less than 5 years of experience, 40.0% had between 5-10 years, 14.7% had 10-15 years, 16.8% had 15-20 years, and 5.3% had over 30 years of experience. This demonstrates a broad range of experience levels among the respondents, with a significant proportion having 5-10 years of experience, highlighting the diversity of expertise in the sample.

4.1 Test of Hypotheses

This section provides a critical evaluation of the inferential statistics, conducted using the multiple regression method of data analysis. The decision rule applied is as follows: if the significance value is less than 5%, the null hypothesis will be rejected; however, if the significance value exceeds the 5% threshold, the null hypothesis will be accepted. The following is the summary of the regression model results for the hypotheses

4.1.1 Hypothesis One

Ho₁: The choice of measurement method under IAS 40 does not significantly impact the reliability of financial statements among listed pharmaceutical companies in Nigeria.

Table 4.2: Summary of multiple regression analysis of how each measurement method affects the reliability of financial statements among quoted pharmaceutical companies in Nigeria.

Model	Beta	t	Sig.	R	R ²	Adj. R ²	Anova Sig.	F(df)
				0.794 ^a	0.688	0.667	0.045 ^b	3.531 (2,92)
(Constant)	0.077	1.159	0.254					
Cost Method	0.009	0.301	0.532					
Fair-Value Method	0.203	2.904	0.032					

Dependent Variable: Reliability of financial statement

Predictors: (Constant), Cost Method, Fair-Value Method

Source: Researcher’s Field Survey Results (2024)

The result in table 4.2 shows the regression model which seeks to determine how each measurement method significantly affects the reliability of financial statements among quoted pharmaceutical companies in Nigeria. The result shows that the cost method has a positive effect on the reliability of the financial statements of pharmaceutical companies in Nigeria ($\beta_1= 0.009$) but it is not statistically significant to justify this relationship ($p= 0.532 > 0.05$). However, the Fair-Value Method adopted for measuring investment property is seen to have a positive and significant effect on the reliability of the financial statements of pharmaceutical companies in Nigeria ($\beta_2= 0.203, p= 0.032 < 0.05$). The R-square value which is 0.688 and the adjusted R-square of 0.667 also confirm the fitness of this regression model and the explanatory power used in this model. The result showed an R-square of 0.688 confirming 68.8% increase in the reliability of financial statements is caused by the adoption of a suitable cost method and Fair-Value Method. Overall, the Anova sig value while revealing 0.000 shows that both the cost method and Fair-Value Method pose a significant effect on the reliability of financial statements of pharmaceutical companies in Nigeria.

4.1.2 Hypothesis Two

H2: The measurement methods of IAS 40 do not significantly affect the comparability of financial statements among quoted pharmaceutical companies in Nigeria

Table 4.3: Summary of multiple regression analysis of how the measurement method affects the comparability of financial statements among quoted pharmaceutical companies in Nigeria.

Model	Beta	T	Sig.	R	R ²	Adj. R ²	Anova Sig.	F(df)
				0.684 ^a	0.537	0.449	0.022 ^b	3.913 (2,92)
(Constant)	0.610	0.654	0.348					
Cost Method	0.051	0.225	0.423					
Fair-Value Method	0.355	2.804	0.017					

Dependent Variable: Comparability of financial statement

Predictors: (Constant), Cost Method, Fair-Value Method

Source: Researcher’s Field Survey Results (2024)

The result in table 4.3 shows the regression model which seeks to determine how each measurement method significantly affects the comparability of financial statements among quoted pharmaceutical companies in Nigeria. The result shows that the cost method positively affects the comparability of financial statements of pharmaceutical companies in Nigeria ($\beta_1= 0.051$) but it is not statistically significant to justify this relationship ($p= 0.423 > 0.05$). However, the Fair-Value Method adopted for measuring investment property is seen to have a positive and significant effect on the comparability of financial statements of pharmaceutical companies in Nigeria ($\beta_2= 0.355, p= 0.017 < 0.05$). The R-square value which is 0.537 and the adjusted R-square of 0.449 also confirm the fitness of this regression model and the explanatory power used in this model. The result showed an R-square of 0.537 confirming 53.7% increase in the comparability of financial statements is caused by the adoption of a suitable cost method and Fair-Value Method. Overall, the Anova sig value while revealing 0.022 shows that both the cost method and the fair-value Method pose

a significant effect on the comparability of financial statements of pharmaceutical companies in Nigeria.

4.2 Discussion of Findings

The study reveals that while the cost method shows a positive effect on the reliability of financial statements in Nigerian pharmaceutical companies, this effect is not statistically significant. This finding suggests that the cost method, which records investment properties at their historical cost, may not sufficiently enhance financial statement reliability in this context. In contrast, the fair-value method, which values investment properties at current market value, demonstrates a significant positive effect on financial statement reliability. This indicates that fair-value accounting provides a more accurate and timely reflection of investment property values, contributing to greater financial transparency and reliability (Carbonara & Stefano, 2020). These findings align with existing research that often shows fair-value measurement as superior in providing relevant financial information compared to historical cost³. For instance, studies in other sectors have consistently highlighted that fair-value accounting enhances financial reporting quality by better-capturing market conditions (Deason et al., 2020; Diantimala & Sofyani, 2020; Wijoyo & Bimo, 2021; Dănescu & Stejerean, 2022)

The findings reveal that while the cost method positively affects the comparability of financial statements for pharmaceutical companies in Nigeria, this effect is not statistically significant. This suggests that the cost method may have a limited impact on enhancing comparability in this specific context (Chen et al., 2021). In contrast, the fair-value method demonstrates a significant positive effect on comparability, indicating its effectiveness in providing more consistent and relevant financial information across different periods and entities (Awadallah & Elgharbawy, 2020). These findings are consistent with existing research that highlights the advantages of fair-value measurement over historical cost (Lin & Wang, 2017; Lee, 2019; Petrović et al., 2023). Fair-value accounting is often praised for improving financial statement comparability by reflecting current market conditions and offering more accurate and relevant data (new

5.0 Conclusion and Recommendations

The study indicates that while the cost method has a positive effect on the reliability and comparability of financial statements for pharmaceutical companies in Nigeria, this effect lacks statistical significance. This suggests that the historical cost approach may not significantly enhance financial statement reliability and comparability in this context. Conversely, the fair-value method shows a significant positive impact on both reliability and comparability, reflecting its superior ability to provide an accurate and timely valuation of investment properties.

Based on these findings, it is recommended that pharmaceutical companies in Nigeria adopt the fair-value method for measuring investment properties to enhance the reliability and comparability of their financial statements. This method's alignment with current market conditions offers a more relevant and transparent reflection of asset values. Additionally, further research should investigate the implications of the same measurement methods across various industries and international settings to deepen the understanding of their impact on financial reporting quality.

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