



JURNAL

Riset Akuntansi dan Keuangan Indonesia

URL : <http://journals.ums.ac.id/index.php/reaksi/index>



# IFRS-16 and Information Quality of Listed Non-Financial Firms in Nigeria

Musa-Mubi Aliya<sup>1</sup>, Yunusa Nasiru<sup>2</sup>  
<sup>1,2</sup>Ahmadu Bello University,  
Zaria, Nigeria  
[\\*aliyam.mubi@yahoo.com](mailto:*aliyam.mubi@yahoo.com)

**Keywords:**

*Leases, IFRS 16, Information Quality, Value Relevance, Decision Usefulness Theory*

**ABSTRACT**

Lease accounting was revised in 2016 due to the contentious nature of its reporting in the financial statements under IAS 17 particularly in respect of operating leases. IAS 17 was criticized for impairing the quality of accounting information due to the inappropriate treatment of identified resources in control and financial obligations by lessee firms. IFRS 16 (effective 2019) eliminates the distinction between operating and finance leases requiring right-of-use assets and associated liabilities to be reported on the Statement of Financial Position. In cognizance of its objective of enhancing information quality, the paper assessed the relevance of accounting information reported subject to compliance with IFRS 16 in the context of listed non-financial firms in Nigeria utilizing lease finance. The Ohlson model was modified to regress share price on the book value of equity per share, earnings per share, and the interaction of these variables with IFRS 16 adoption using a data set for 2016-2021. GLS regression results indicate book value per share to have increased relevance with the adoption of IFRS 16, whereas the relevance of earnings per share remains unchanged. The paper concludes that IFRS 16 adoption enhances the information quality of listed non-financial firms in Nigeria. Recommendations are made for firms to optimize accounting processes to achieve or sustain information quality by adopting IFRS 16. The IASB, as a standard-setter, should also prioritize the cost-efficiencies of standards in their implementation, as this could account for a disparity in the perceived accounting information quality of varying-sized firms).

## INTRODUCTION

Prior to the issuance of the International Financial Reporting Standard (IFRS) 16 (effective 2019), controversy had trailed the accounting treatment of lease finance and, in particular, operating leases under the International Accounting Standard (IAS) 17. Thomson Reuters's Checkpoint (2013) noted appreciable utilization of lease finance such that its accounting and reporting were deemed important matters for both entities and users of financial statements. The basis of contention was determining whether a right of use resulted in an asset and liability, thus, requiring recognition and measurement as such in the financial statements (Epstein & Leen, 2014). The consequences of the inappropriate accounting treatment for an identified resource in control are far-reaching as the relevance and reliability of the information provided in the financial statements are impaired.

The former applicable standard on leases- IAS 17, was criticized for its potential to erode the transparency and comparability of financial statements, thus, failing to confirm the criteria for quality financial reporting as contained in the Conceptual Framework of the International Accounting Standards Board (IASB 2010a). Organizations were required to keep operating leases off the Statement of Financial Position and, instead, disclose the obligations only in the notes to the accounts. This issue resulted in the derivation of misleading financial indicators with measures such as return on assets and debt-equity ratio improved by non-capitalization of an asset and liability. The state of reporting was such that in 2014, listed firms applying IFRS or USGAAP were found to have about 85% of lease obligations equivalent to 2.9 trillion dollars reported off-balance sheet (IASB 2016a). These disclosures in the notes were adjudged cumbersome in detail, raising concerns that stakeholders were susceptible to either paying less attention to or incapable of appropriately utilizing information that, otherwise, would be valuable as input to analysis and decision-making.

IFRS 16, therefore, is an attempt to address the deficiencies of IAS 17 by enhancing the quality of information reported regarding lease finance. The most significant change resulting from the new standard is the elimination of the distinction between operating and finance leases and the

requirement for all leases to be reported on the Statement of Financial Position, excluding those of a short-term nature (less than 12 months) or leases of small-ticket assets (low value). Anticipated effects of IFRS 16 are expected to span lessees' accounting systems, business processes, financial measures, debt covenants, credit ratings, cost of capital, and lessors' business models (PriceWaterhouseCoopers, 2016). The quality of information obtainable by adopting IFRS 16 in accounting for leases is of key interest to financial reporting research.

High-quality accounting information is 'useful'. 'Usefulness, as a term, is synonymous with 'relevance'- a key attribute required of financial statements towards ensuring optimum decision-making by an entity's stakeholders, especially investors. Quality information facilitates the assessment of firm value, which is reflected in share prices. Thus, the question is, to what extent do investors of a lessee entity perceive value (through share prices) in accounting information reported subject to compliance with IFRS 16? In other words, how value-relevant is accounting information provided with adopting IFRS 16?

The research paper provides an answer in Nigeria: an established lease industry valued at 1.68 trillion nairas, with operating leases accounting for 40% (672 billion nairas) as of 2018 (Equipment Leasing Association of Nigeria 2018). This percentage was forecast to increase with changing dynamics of business operations in favor of service outsourcing facilitated through leases (Equipment Leasing Association of Nigeria 2018). By 2020, Nigeria had attained a lease volume of 2.01 trillion nairas, representing a growth of 4.3% from the 2019 equivalent value of 1.91 trillion in naira (Equipment Leasing Association of Nigeria 2021). Furthermore, with Nigeria adopting the IFRS in 2012, listed firms employing leases are expected to comply with the requirements of IFRS 16 (effective 2019) in preparing financial statements. Consequently, lessee firms will face a major shift in recognition, measurement, and disclosure of leases which will require, on their part, assessment, and reclassification of lease transactions.

The paper, therefore, ascertains the effect of IFRS 16 adoption on accounting information quality- providing evidence in the context of listed non-financial firms in Nigeria. These firms were sampled from various industries, including oil and

gas, agriculture, healthcare, construction and real estate, services, industrial goods, consumer goods, information and communication technology, natural resources, and conglomerates. According to Gorowski, Kurek, and Szarucki (2022), these industries are capital-intensive, with significant property, plant, and equipment investments. Therefore, quality reporting of these items in the financial statements would be important to stakeholders. In addition, listed non-financial firms are lessees (target implementers) whose financial reports will be affected by adopting IFRS 16.

## LITERATURE REVIEW AND HYPOTHESIS FORMULATION

### *Lease*

IAS 17:4 defines a lease as an agreement whereby a party, the lessor, conveys to another, the lessee, in return for a series of payments, the right to use an asset for an agreed period, otherwise referred to as a lease term (IASB 2010b). In this case, the lessor is the asset's owner and the lessee, the other party to whom the right of use is granted. In transferring this right, depending on the substantial conveyance of risks and rewards of ownership, a lease was further classified into finance and operating. Risks and rewards of ownership refer to potential losses and gains that arise from a title to an asset. Where a significant amount of this is transferred to the lessee, it is said to be a finance lease, and if retained by the lessor, it becomes recognized as an operating lease.

An operating lease is one where the risks and rewards of ownership remain with the lessor. IAS 17 (now replaced by IFRS 16) required such leases to be disclosed in the notes to the accounts and not represented on the Statement of Financial Position. Consequently, the required disclosures specified by IAS 17:35 included: information on significant leasing arrangements; future minimum lease payments categorized into periods of a year, 2-5 years and above five years; information on sublease agreements, if any and; the lease payments inclusive of contingent rents and sublease payments expensed during the period (IASB 2010b). The lease payments were required to be expensed straight-line over the lease term by lessees.

Thomson (2003) identified accounting incentives under IAS 17 as one of the motives for

operating lease preference over finance leases. It provided opportunities for an entity to preserve debt capacity by keeping the liability off the Statement of Financial Position and benefited from a leverage measure lower than should be the case if operating leases were agreed to constitute obligations equivalent to liabilities. IFRS 16, however, eliminates the distinction between finance and operating leases and the incentive to structure lease transactions as operating. Leases are now defined as transfers of 'right-to-use' over assets to lessees in exchange for consideration. (IASB 2016b). It is established where a lessee exercises control over assets via discretion in the use and is in receipt of the substantial economic benefits obtainable

### *International Financial Reporting Standard (IFRS) 16 on Leases*

IFRS 16 was released by the IASB in 2016 to address the concerns raised in accounting for leases under the previous IAS 17. This issue ensured that all resources controlled by an entity and obligations towards future payment meeting the definitions of an asset and liability, respectively, were capitalized on the Statement of Financial Position. Effective 2019, firms utilizing lease finance are expected to bring 'on-balance sheet,' the transactions that meet the lease definition, excluding those low in value (5,000 dollars or less) and of a duration of fewer than 12 months. A 'right of use' model will be adopted in lease accounting. Having met the criteria for recognition as a lease, the lessee measures at inception the right of use asset and lease liability based on discounted values of future payments over the lease term. Subsequently, in the Income Statement, depreciation of the leased asset and interest on lease liabilities are accounted for. The principal component of the liability amortized is recognized under financing activities, whereas the interest paid is accounted for under operating activities in the Statement of Cash flow (IASB 2016c).

From the aforementioned, IFRS 16 significantly alters the composition and information reported in the financial statements for firms predominantly engaged in operating leases (IASB 2016c). The Effects Analysis Report issued by the IASB (2016c) forecasts enhancement in the quality of financial reporting due to the new standard with pronounced benefits to investors. IFRS 16 is expected to solve the problems associated with the

non-incorporation of fundamental information in decision-making. Similarly addressed will be the over or underestimation of liabilities due to varying assumptions and estimation techniques investors utilize regarding disclosures under IAS 17.

### *Information Quality*

The goal of accounting and financial reporting is to provide information that would meet the decision needs of users. In achieving this objective, emphasis is placed on the usefulness of information reported in the financial statements. For information to be deemed useful, it should have significant potential in not just affecting but ensuring optimality in the actions or choices of a decision-maker. Accounting standards facilitate this by serving as guidelines in the presentation of information meeting the criteria for quality financial reporting as embodied in the Conceptual Framework of the IASB (2010)-principal of which are relevance and reliability. The criteria required by the framework have largely been informed by the propositions of the decision-usefulness theory, which summarises attributes of quality information to include; relevance, reliability, comprehensibility, verifiability, lack of bias, comparability, and consistency (Staubus, 2000).

The Conceptual Framework for Financial Reporting of the IASB (2010) has aptly defined decision-useful information as a relevant and faithful representation of the economic phenomena it claims to communicate. It is attained when such information is complete, neutral, and error-free. Besides the fundamental criteria of relevance and reliability, others include comparability, timeliness, verifiability, and comprehensibility of financial information. In corroboration, Dandago and Hassan (2013) opined that relevance and reliability are critical and symbiotic for the quality of financial information. As such, preparers of financial statements need to exercise caution in having both characteristics reflected without undue dominance. In the case of lease accounting, the possibility of a trade-off conflict between relevance and reliability can be seen in that the course to improve the quality of the information provided on operating lease transactions through capitalization may be obstructed by complexities in measurement with the inherent tendency for errors or inadequacy in effectively capturing the values at which the asset(s) and resulting obligation(s) are to be reported.

Proponents of decision usefulness theory, such as Bruns (1968) and Gonedes and Dopuch (1974), contended that the quality of accounting information could be ascertained from investors' individual and aggregate market behavior. Gonedes and Dopuch (1974) further opined that the desirability and effects of alternative accounting procedures could be determined from the market's response reflected in company share prices. Investors, the source of equity and debt finance for asset investment, can, thus, be deduced to constitute the fundamental users of accounting information. In this regard, Cohen (2003) highlighted the benefit of increased financial reporting quality in narrowing information asymmetries between an entity and its investors, thereby enhancing the decision-making process.

In line with the above, the paper formulates hypotheses as follows;

**H1** IFRS 16 Adoption significantly influences the effect of the book value of equity on the share price of listed non-financial firms in Nigeria

**H2** IFRS 16 Adoption significantly influences the effect of earnings on the share price of listed non-financial firms in Nigeria.

### **EMPIRICAL STUDIES**

According to Kirkpatrick (2012), the approach to assessing the quality of reporting outputs is either quantitative or qualitative. Value relevance studies are quantitative reporting quality measures that relate entities' market values to the accounting information provided. On the other hand, qualitative methodologies are in-depth and contextual in achieving the objective though not necessarily superior. The essence of this section is to provide a survey of the extant empirical literature on lease accounting with an emphasis on value-relevance research. It is worth noting, however, that only a few studies have been conducted in this area, especially concerning IFRS 16, whose application was effective in 2019. The review includes studies that attempted a constructive capitalization of operating lease information to ascertain its enhancement of information quality through value relevance.

In one of the earliest studies, Sakai (2010b) compared the relevance of earnings reported by finance and operating lease models using a sample



of 5,357 observations covering 2000-2008 in Japan. The share price was expressed in two models as a function of ordinary income (Model 1) and ordinary income adjusted for lease information in footnotes (Model 2). Vuong's (1989) test was applied to ascertain the relative explanatory power of the models for ordinary income and its adjusted value. Findings suggested the information content of earnings remained the same, contrary to an earlier study that established the finance lease model to be value-relevant (Sakai, 2010a). The results were inferred due to the low effects of lease capitalization on earnings.

In comparing the value relevance of the finance and operating lease accounting models to ascertain any difference in accounting quality and whether the proposed standard will improve the disclosure of financial statements, Demper (2012) employed regression to assess the relationship between the lease models and market values of sampled firms outside the United States. The finance lease accounting model was found to be more value relevant than its counterpart- suggestive of the shortcomings inherent in the accounting treatment for operating leases under IAS 17. This issue is in corroboration the findings of Sakai (2010a).

Mikonnen (2016) examined the value relevance of operating leases reported by 90 listed airline companies from 1993-2013. The study estimated the amounts of leased assets and corresponding liabilities from notes to the accounts using a constructive capitalization model in line with Imhoff, Lipe, and Wright (1991 and 1997 and Jennings and Marques (2013). Employing an Ordinary Least Square (OLS) regression, the market equity value for the sampled firms was regressed on the book value of total assets, net debt, and estimated lease liabilities controlling for size. Subsequent models were constructed to estimate the incorporation of lease-adjusted values of total assets and net debt in the share price. Findings indicated an absence of value relevance due to a lack of incremental information as regards the constructively capitalized operating leases. In similar terrain, an earlier study by Pettersson and Brodin (2014) found that market values still need to be adjusted for the effects of operating leases on the book value of equity, attributing this to investors not according to importance to disclosures compared to information presented in the main account. Where some do, the time and assumptions needed

to be coupled with non-availability of required information for a constructive capitalization, serve as disincentives.

Examining the effect of IFRS 16 on the value relevance of operating lease liabilities prior to the effective date of application, Giner and Pardo (2018) studied the years 2010-2013 for a sample of 70 listed firms in Spain with constructive capitalization method of Fulbier, Lirio, and Pferdehirt (2008) employed to determine the value of operating lease liabilities disclosed in the Notes. Ohlson model (1995) was subsequently applied to regress the market value of equity on the book value of equity (adjusted for operating lease assets and liabilities), recognized liabilities, capitalized operating lease liabilities, and net income. Findings revealed the possible lack of significant changes in value with the implementation of IFRS 16, given that disclosed information appears to be considered by stakeholders and is perceived as recognized liabilities in the Statements.

Bjorklund (2019) employed an event study methodology to assess the effect of IFRS 16 adoption on abnormal returns of firms listed on the OMX Stockholm for the first quarter of 2019. The research examined the effect on cumulative abnormal returns of changes to; leverage between quarters, earnings between quarters, solidity, and IFRS 16 adjustments to leverage. Even though the association was positive, regression results do not support the hypothesis of a market reaction to implementing IFRS 16. The t-test finding of an insignificant change in cumulative abnormal returns equally corroborated this result. Inference made was that investors were already considering operating lease information prior to IFRS 16. Given the dearth of empirical literature, there is still a pronounced need for additional evidence as to whether there are substantial benefits to adopting IFRS 16 in terms of improved information quality as envisaged by the IASB.

Only a few works have been found to examine the actual effects of IFRS 16 adoption after the effective date of application. Wang, Hsiung, and Jhu (2020) conducted a study on the value relevance of accounting information given the adoption of IFRS 16 by listed firms in Taiwan. The Ohlson model (1995) was used to regress data collected on net income, equity book value, and stock price. The study found that where third-quarter data for 2018

and 2019 were analyzed, net income and book equity value significantly affected stock price, confirming the value relevance of IFRS 16. However, on annual data, there was established to be no value relevance. Two possibilities for the result were suggested, one being that lease information on assets and liabilities reported in the quarterly reports were reflected in the stock price mid-year. The second was that the Coronavirus pandemic of 2020 (when some of the annual reports became published) had adversely affected the stock prices of these firms, thus, rendering information non-value relevant.

Pettersson and Brusewitz (2020) examined the value relevance of IFRS 16 adoption by a sample of 262 listed firms on the Swedish Stock Exchange. Data from quarterly reports of these firms for the years 2018 and 2019 (pre and post-adoption) were analyzed to assess any changes and the industries where these were pronounced. From the incremental value relevance approach, it was found that IFRS 16 adoption has a significant negative effect on the value relevance of earnings, whereas size (measured based on total assets, which includes IFRS 16 related information) was found to increase value relevance significantly. This result was also evident in lease-intensive industries such as retail, services and airlines. The study, however, concluded that the near-zero earnings coefficients indicate an absence of a relationship with a market value per share of the sample firms despite its significance. This situation was further attributed to the discrepancies in firm estimation methods and their accuracy in operating leases' values.

Matos (2021) similarly investigated the effect of IFRS 16 adoption on the value relevance of accounting information for a sample of 2,540 firms drawn from 14 European countries. Data for 2016 and 2019 were analyzed using the incremental approach to value relevance studies. The results indicated the absence of any change, suggesting that prior to adoption, stakeholders such as analysts and investors were already incorporating in the analysis the operating lease information disclosed in notes to the accounts.

Gorowski, Kurek and Szarucki (2022) assessed the effect of IFRS 16 adoption on the value of assets, liabilities and leverage reported in 2019 for a sample of 19 listed energy firms on the Warsaw Stock Exchange, Poland. Through an audit methodology, the paper found a significant influence of the

standard on the values of these items in the financial statements- particularly, material changes in assets and liabilities of these firms. In addition, there was found to be an adverse effect on financial indicators such as leverage on assets and leverage on equity.

The empirical review highlights the limited number of studies available on the subject matter with varying findings that do not provide substantial grounds for a definite conclusion about the effect of IFRS 16 on information quality. This study contributes to the body of literature by providing evidence in the context of Nigeria.

## RESEARCH METHODS

A correlation research design was adopted to determine the relationship between the book value of equity, earnings, IFRS 16 adoption and share price of listed non-financial firms in Nigeria. Emphasis was placed on the effect of IFRS 16 adoption on share price and its interaction with the variables; book value of equity and earnings. The study population is defined as non-financial firms listed on the Nigerian Stock Exchange (NSE) as of 31<sup>st</sup> July 2022, which amounts to 106. The sample comprised 56 listed non-financial firms selected on the criteria that these firms utilize lease finance. Data was sourced from the audited financial statements of the sample firms and the NSE Fact Book for six years- 2016-2021. The time frame was selected based on the effective date of compliance with IFRS 16 (2019), such that the period avails the research with data for three years each, prior to and post-adoption of the standard. Data points with negative book equity values were eliminated, leading to an unbalanced data set of 297 observations used for the study.

The Ohlson model (1995) was modified to assess the quality of accounting information after IFRS 16 adoption in terms of its effect on firms' share prices. The variables were measured as; market value per share, book value per share and earnings per share. A dummy variable accounting for the year of compliance with IFRS 16 was incorporated into the model and interacted with the independent variables. It enabled an incremental approach analysis with the expectation that values reported for the book value of equity per share and earnings per share due to IFRS 16 adoption would have a significant, positive association with the

market value of equity. This method is referred to in the literature as the price value relevance approach (Kaushalya & Kehelwalatenna, 2020). A control variable, firm size, was included in the analysis taking into cognizance theoretical propositions by Callimaci, Fortin and Landry (2011) that the size

of a firm could affect the quality of accounting information and, consequently, the level of information asymmetry between the firm and external stakeholders. Data analysis was conducted with the aid of the statistical software STATA. The model estimated via regression is as follows;

$$MVPS_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 IFRS16ADP_{it} + \beta_4 BVPS * IFRS16ADP_{it} + \beta_5 EPS * IFRS16ADP_{it} + \beta_6 FSIZE_{it} + \varepsilon_{it}$$

Where MVPS= Share price three months after accounting year-end (t) of firm 'i', BVPS= Book value of equity per share, EPS= Earnings per share, IFRS16ADP= Dummy variable for IFRS 16 adoption, FSIZE= Firm size,  $\beta_0$ = Constant,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ ,  $\beta_5$ ,  $\beta_6$ = Coefficients for Estimation,  $\varepsilon$ = Error term, i= Cross-section/Firm and t= Time.

Several robustness tests were necessary for the regression to ensure the validity of the results and inferences derived. These include; the Shapiro-Wilk test to ascertain the normality of data used in the study, Correlation matrix, variance inflation factor and tolerance values to establish the absence of multicollinearity, Heteroscedasticity test to determine the absence of homoscedasticity, further necessitating the generation of fixed and random effects regression results, as well as the Hausman

Specification test for selection between the fixed and random effects. The final result reported in the paper is that of the random effects (Generalized Least Squares) after its confirmation by the Lagrange Multiplier test for random effects. Analyses were based on the 5% level of significance.

## RESULTS AND DISCUSSION

### Descriptive Statistics

This section describes the data analyzed for the study. Table 1 presents the dependent and independent variables' mean, standard deviation, and minimum and maximum values. In addition, the results of the Shapiro-Wilk test for the normality of data are provided.

Table 1 Descriptive Statistics

Var.	Obs.	Mean	Std. Dev.	Min.	Max.	S-W (z)	pr>z
Mvps	297	54.5884	190.9255	0.2	1580	11.780	0.0000
Sr_Mvps	297	4.4172	5.9326	0.4472	39.7492	10.456	0.0000
Bvps	297	150.7849	892.3944	0.0181	10341.56	12.167	0.0000
Sr_Bvps	297	5.2057	11.1402	0.1344	101.6935	11.599	0.0000
Eps	297	487.637	6126.717	-63700	71500	12.050	0.0000
Sq_EpS	297	3.76e+07	3.82e+08	0	5.11e+09	12.380	0.0000
Ifrs16adp	297	0.5118	0.5007	0	1	-7.111	1.0000
Sr_BvpsIfrs	297	2.9990	10.1446	0	101.6935	11.655	0.0000
Sq_EpsIfrs	297	1.88e+07	2.97e+08	0	5.11e+09	12.450	0.0000
Total_assets	297	1.70e+08	3.76e+08	574946	2.39e+09	10.994	0.0000
Fsize_Log	297	7.5140	0.8104	5.7596	9.3788	4.351	0.0000

Source: STATA Output, 2022

Table 1 shows that the minimum value for MVPS (market value per share) is N0.2, whereas the maximum is N1,580. The mean value of N54.59 suggests the average share price recorded for the sample firms. BVPS (book value of equity per share) has a minimum value of N0.0181 and a maximum value of N10,341.56. The average (mean) registered

for the variable is N150.78. EPS (earnings per share) for the sample firms range between a minimum value of -63,700 kobo (-N637) and a maximum value of 71,500 kobos (N715) with an average value of N487.64. The minimum implies the presence of firms in the sample that recorded losses during the study period. IFRS16ADP (IFRS adoption)

has a minimum value of 0 and a maximum of 1 being a dummy variable. The control, FSIZE (firm size), measured in terms of total assets, reveals a minimum value of approximately N574.946 million and a maximum of N2.392 trillion. On average, the firms have total assets worth N170 billion in approximation. The range of values provides inference on the significant diversity of the sample firms.

Analysis of the mean and standard deviation for the variables described suggest an absence of normality given that the standard deviation values are greater than the mean except in the case of IFRS16ADP. It is further confirmed by the results of the Shapiro-Wilk test, where the probability ( $pr > z$ ) of the Z values are significant at 1%, except for the variable IFRS 16 adoption (see Table 1). In order to address the case of non-normality of data, Box and Cox (1964) as well as Tukey (1977) transformation techniques were employed such that the square

roots of MVPS and BVPS, the logarithm of total assets (firm size) and square of EPS were generated respectively. Except for the control, the transformed independent variables interacted with the variable IFRS16ADP and were subjected to regression analysis. Table 1 shows that the dispersion from the mean regarding the transformed variables is significantly reduced compared to what obtains from the untransformed data.

### Correlation Mix

This section presents the results and interpretation of the correlation analysis conducted. The correlation matrix assesses the magnitude and significance of the association between the study's independent variables. The presence of multicollinearity can also be presumed, albeit subject to confirmation by the results of the multicollinearity test.

Table 2 Correlation Matrix

	Sr_Mvps	Sr_Bvps	Sq_Eps	IFRS16adp	Sr_BvpsIfrs	SqEpsIfrs	Fsize_Log
<b>Sr_Mvps</b>	1.0000						
<b>Sr_Bvps</b>	0.2187**	1.0000					
<b>Sq_Eps</b>	0.0276	0.0129	1.0000				
<b>Ifrs16adp</b>	0.0190	0.0602	-0.0025	1.0000			
<b>Sr_BvpsIfrs</b>	0.1671**	0.8519**	0.0018	0.2892**	1.0000		
<b>SqEpsIfrs</b>	0.0055	0.0066	0.7732**	0.0619	0.0211	1.0000	
<b>Fsize_Log</b>	0.5183**	0.2038**	0.1482*	0.1026	0.1444*	0.0940	1.0000

\*\* - significant at 1%; \* - significant at 5%

Source: STATA Output, 2022

Table 3 Multicollinearity Test Results

Variance Inflation Factor and Tolerance Values		
Variable	Variance Inflation Factor (VIF)	Tolerance Values (1/VIF)
<b>Sr_BvpIfrs</b>	4.66	0.214696
<b>Sr_Bvps</b>	4.40	0.227501
<b>Sq_Eps</b>	2.55	0.392855
<b>Sq_EpsIfrs</b>	2.52	0.397120
<b>Ifrs16adp</b>	1.30	0.770413
<b>Fsize_Log</b>	1.09	0.916263
<b>Mean VIF</b>	2.75	

Source: STATA Output, 2022

Table 2 shows that the correlation coefficients between the independent variables- BVPS, EPS, IFRS16ADP, BVPSIFRS, EPSIFRS and FSIZE are under 0.80, as required by Gujarati (2003).

However, a lone exception can be found in the case of the relation between BVPS and BVPSIFRS, which has a correlation coefficient of 0.85. This result, being above the threshold, indicates the likelihood



of multicollinearity. Table 3 presents the variance inflation factors and tolerance values from which conclusions as to those above are derived.

Table 3 indicates that the variance inflation factors for all the study's independent variables are less than 10, with tolerance values greater than 0.1. This result is in line with the requirements by Chatterjee and Price (1991) for inference as to the absence of multicollinearity- thereby affirming the optimality of the data set used in the analysis.

### Regression Results and Test of Hypotheses

A series of processes were undertaken towards the final selection of the Generalized Least Squares (GLS) result. The initial Ordinary Least Squares (OLS) regression output was assessed for heteroscedasticity using the Breusch-Pagan/Cook-Weisberg test. A chi2 (1) value of 148.12 with a p-value of 0.0000, significant at 1% (see appendix), necessitated the run of fixed and random effects regression to account for panel effects within the data contributing to the absence of homoscedasticity.

After this, the Hausman specification test was run to inform the choice between fixed effects and random effects regression outputs. The test generated a chi2 (4) value of 4.91 with a p-value of 0.2965, insignificant at 5% (see appendix). Given that the null hypothesis of the Hausman Specification test is that the random effects are efficient, the output was selected and further subjected to the Breusch and Pagan Lagrange Multiplier test for random effects. Based on a chi2 (01) value of 608.79 and p-value of 0.0000 (significant at 1%), the random effects regression result is reported in Table 4.

**Table 4 Regression Result**

Variable	Co-efficient	Std.Err	Z	P>(z)
_Cons	-25.19864	3.934917	-6.40	0.000
Sr_Bvps	-0.0569353	0.0416974	-1.37	0.172
Sq_Eps	3.16e-10	4.97e-10	0.64	0.525
Ifrs16adp	-0.7843446	0.2463239	-3.18	0.001
Sr_BvpsIfrs	0.0926343	0.0256132	3.62	0.000
Sq_EpsIfrs	-5.69e-10	5.49e-10	-1.04	0.300
Fsize Log	3.986029	0.5249018	7.59	0.000
R <sup>2</sup> (Within) - 0.1864				
Wald chi2 (6) - 82.31				
Prob > chi2 - 0.0000				

Source: STATA Output, 2022

Table 4 indicates a Wald chi 2 (6) of 82.31 with a p-value of 0.0000 (significant at 1%). This result

confirms the fitness of the model formulated for analysis and the validity of results generated for inference. Given that the objective of this study is to infer causal relationships between variables and not predict, the back transformation of the resulting output is not considered necessary for analysis. Therefore, emphasis is placed on the direction and statistical significance of the predictor variables' influence on the outcome. From the Table, BVPS has an insignificant negative coefficient of -0.0569353 (p-value, 0.172). However, the interaction of this term with IFRS16ADP (BVPSIFRS) has a significant positive coefficient of 0.0926343 (p-value, 0.000, significant at 1%). This result supports the hypothesis (H1) that IFRS 16 Adoption significantly influences the book value of equity on the share price of listed non-financial firms in Nigeria. Inference can thus be made that adopting IFRS 16 has improved the accounting information quality of book value of equity in the context of listed non-financial firms in Nigeria.

The variable, EPS, reports an insignificant positive coefficient of 3.16e-10 with a p-value of 0.525. IFRS 16 adoption does not improve the quality of earnings, given that the interacted term of EPSIFRS remains unchanged in terms of statistical significance (p-value, 0.300). However, examining the coefficient further reveals a change to the negative (-5.69e-10), which may indicate an adverse influence on the accounting information quality of earnings, although insignificant. The result provides evidence to reject the hypothesis (H2), which states that IFRS 16 adoption significantly influences the effect of earnings on the share price of listed non-financial firms in Nigeria. Consequently, IFRS 16 adoption has yet to improve the accounting information quality of earnings in the context of listed non-financial firms in Nigeria. The significant positive effect that BVPSIFRS has on share price and the insignificant negative effect registered in terms of EPSIFRS may also be on account of investors attributing greater significance to the financial position of firms over financial performance, as suggested by Kaushalya and Kehelwalatenna (2020).

The analyses under this section have been made to control for a possible confounding effect that the variable FSIZE may have on accounting information quality. A positive coefficient of 3.986029 with a p-value of 0.000 (significant at 1%) for FSIZE confirms that large-sized firms are

perceived to have higher accounting information quality than their small-sized counterparts. Therefore, the significant negative effect that the variable IFRS16ADP (coefficient, -0.7843446; p-value, 0.001) has on share price contrary to the a priori obtained has excluded the effect of firm size. The larger a firm becomes, the efficiencies in information production and dissemination abound, which should translate into reduced information asymmetry and improved information quality. Nevertheless, as noted by Hair, Hult, Ringle, Sarstedt, Danks and Ray (2021), the significance of the interacted terms should be the primary focus of analysis and interpretation in the case of studies applying moderation.

## CONCLUSION

---

The study's findings lead to a conclusion as to the significance of IFRS 16 adoption in enhancing

the accounting information quality of listed non-financial firms in Nigeria, controlling for the effect of firm size. Given the deficiencies above of IAS 17 in obscuring the actual state of resources and financial obligations of firms, IFRS 16 can be said to have improved the reporting of these key financial variables and, by extension, the reliability of analyses, inferences and decisions made from there. Shareholders of listed non-financial firms in Nigeria find the adoption of IFRS 16 to be value relevant. The paper recommends that firms optimize their accounting processes to avail themselves of the benefits of greater information quality by adopting IFRS 16. The standard-setting and regulatory bodies such as the IASB should also prioritize cost-efficiencies of standards in the implementation process. This issue could account for a disparity in the perception of accounting information quality for firms better positioned to maximize benefits over costs compared to others.

## REFERENCE

- Bjorklund, S. (2019). Value Relevance of IFRS 16- A Study of the Stock Market Reaction. Master's Thesis, Uppsala University.
- Box, G. and Cox, D. (1964). An Analysis of Transformations. *Journal of the Royal Statistical Society Series B (Methodological)* Vol. 26, pp. 211–252.
- Bruns, W. J. Jr. (1968). Accounting Information and Decision-Making: Some Behavioral Hypotheses. *The Accounting Review (July)*, pp. 469–480.
- Callimaci, A., Fortin, A. and Landry, S. (2011). Determinants of Leasing Propensity in Canadian Listed Companies. *International Journal of Managerial Finance* Vol. 7, No. 3, pp. 259–283.
- Chatterjee, S. and Price, B. (1991). *Regression Analysis by Example 2<sup>nd</sup>*. New York: Wiley.
- Cohen, D. A. (2003). Quality of Financial Reporting Choice: Determinants and Economic Consequences. Working paper, New York University.
- Dandago, K. I. and Hassan, N. I. B. (2013). Decision Usefulness Approach to Financial Reporting: A Case for Malaysian Inland Revenue Board. *Asian Economic and Financial Review* Vol. 3, No. 6, pp. 772-784.
- Demper, S. (2012). Accounting Quality of Leases: A Comparison in Value Relevance of the Lease Accounting Models. Rotterdam.
- Epstein, B. J. and Leen, L. A. (2014). IASB-FASB Lease Accounting Proposal. Technical Excellence: Lease Accounting.
- Equipment Leasing Association of Nigeria. (2018). *Lease Volume News*. <https://elannigeria.org/wp-content/uploads/2019/04/LEASE-VOLUME-NEWS-2018-newwww.pdf>
- Equipment Leasing Association of Nigeria. (2021). Economic Thrust of Government: Opportunities for Leasing. *Leasing Focus (April)*.
- Fulbier, R. U., Lirio, S. J. and Pferdehirt, M. H. (2008). Impact of Lease Capitalization on Financial Ratios of Listed German Companies. *Schmalenbach Business Review* Vol. 60, pp. 122-144.
- Giner, B. and Pardo, F. (2018). The Value Relevance of Operating Lease Liabilities: The Economic Effects of IFRS 16. *Australian Accounting Review*.
- Gonedes, N. J. and Dopuch, N. (1974). Capital Market Equilibrium, Information Production and Selecting Accounting Techniques: Theoretical Framework and Review of Empirical Work. *Journal of Accounting Research* Vol. 12, No. 3, pp. 48–129.
- Gorowski, I., Kurek, B. and Szarucki, M. (2022). The Impact of a New Accounting Standard on Assets, Liabilities and Leverage of Companies: Evidence from Energy Industry. *Energies* 2022 Vol. 15, pp. 1293.
- Gujarati, D. N. (2003). *Basic Econometrics 4<sup>th</sup>*. Singapore: McGraw Hill.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P. and Ray, S. (2021). Moderation Analysis. In *Partial Least Squares Structural Equation Modelling (PLS-SEM) using R* (pp.155-172). Cham: Springer.
- Imhoff, E. Jr., Lipe, R. and Wright, D. (1991). Operating Leases: Impact of Constructive Capitalization. *Accounting Horizons* Vol. 5, No. 1, pp. 51–63.
- Imhoff, E. Jr., Lipe, R., and Wright, D. (1997). Operating Leases: Income Effects of Constructive Capitalization. *Accounting Horizons* Vol. 11, No. 2, pp. 12–32.
- International Accounting Standards Board. (2010a). *The Conceptual Framework for Financial Reporting*. IFRS Foundation.
- International Accounting Standards Board. (2010b). *International Accounting Standards 17- leases*. IFRS Foundation.

- International Accounting Standards Board. (2016a). *IASB Shines Light on Leases by Bringing Them onto the Balance Sheet*. Accessible at <https://www.ifrs.org/news-and-events/2016/01/iasb-shines>
- International Accounting Standards Board. (2016b). *IFRS 16- Leases*. Accessible at <https://www.iasplus.com/en/standards/ifrs/ifrs-16>
- International Accounting Standards Board. (2016c). *IFRS 16-Effects Analysis-*. Accessible at <https://www.ifrs.org/-/media/project/leases/ifrs/published-documents/ifrs16>
- Jennings, R. and Marques A. (2013). Amortized Cost for Operating Lease Assets. *Accounting Horizons* Vol. 27, No. 1, pp. 51–74.
- Kaushalya, P. and Kehelwalatenna, S. (2020). The Impact of IFRS Adoption on Value Relevance of Accounting Information: The Case of Sri Lanka. *International Review of Business Research Papers* Vol. 16, No. 2, pp. 66-86.
- Kirkpatrick, A. K. (2012). *Pension Accounting: A Study of Value Relevance and the Perception of Decision Usefulness in the United Kingdom*. Phd Thesis, Bournemouth University.
- Matos, A. I. A. (2021). *Effect of the IFRS 16 Adoption in the Value Relevance of Accounting Information for the European listed companies*. Masters Dissertation, Faculdade de Economia, Universidade do Porto.
- Mikonnen, R. (2016). *Value Relevance of Operating Leases: Empirical Evidence from Listed Companies in Air Transportation Industry*. Master's Thesis, Aalto University School of Business.
- Ohlson, J. (1995). *Earnings, Book Values and Dividends in Equity Valuation*. *Contemporary Accounting Research* pp. 661–687.
- Pettersson, E. and Brusewitz, M. H. (2020). *The Value Relevance of IFRS 16 on the Swedish Market*. Master's Thesis, Uppsala Universitet.
- Pettersson, S. and Brodin, D. (2014). *Proposed New Lease Standard: Do Investors Adjust for Already Capitalized Operating Leases in their Assessment of Market Values of Equity?* Master's Thesis, School of Business, Economics and Law. University of Gothenburg.
- PriceWaterhouseCoopers. (2016). *IFRS 16- The Leases Standard is Changing. Are You Ready?* Accessible at <https://www.pwc.com/gx/en/services/audit-assurance/assets/ifrs>
- Sakai, E. (2010a). Comparison of the Value Relevance between the Purchase and Rental Treatment of Leases. *Journal of Musashi University* Vol. 57 (3 and 4), pp. 531–551.
- Sakai, E. (2010b). Examination of the Value Relevance of Footnote Information with Finance Leases. Accessible at: <http://hdl.handle.net/11149/1382>.
- Staubus, G. J. (2000). *The Decision-Usefulness Theory of Accounting*. New York: Garland Publishing Inc.
- Thomson Reuters Checkpoint. (2013). *An Overview of the Revised Proposed Accounting Model for Leases*.
- Thomson, S. J. (2003). *The Role of Leasing in UK Corporate Financing Decisions, Accounting Treatment and Market Impact*. The University of Stirling.
- Tukey, J. W. (1977). *Exploratory Data Analysis*. Massachusetts: Addison-Wesley.
- Vuong, Q. H. (1989). Likelihood Ratio Tests for Model Selection and Non-Nested Hypotheses. *Econometrica* Vol. 57, No. 2, pp. 307-333.
- Wang, J. L., Hsiung, H. H. and Jhu, Y. W. (2020). The Study on Accounting Information Value Relevance in the Practice of IFRS 16 - An Empirical Study of Taiwan. *ACM International Conference Proceedings*, pp. 146-152.