

EFFECT OF POST-IFRS RESEARCH AND DEVELOPMENT RECOGNITION ON THE CORPORATE VALUE OF LISTED FOOD AND BEVERAGES FIRMS IN NIGERIA

Mary-Fidelis Chidoziem Abiahu¹ Patrick Amaechi Egbunike²

^{1&2}Department of Accountancy, Nnamdi Azikiwe university, Awka, Anambra State, Nigeria.

Emails: f.abiahu@unizik.edu.ng; pa.egbunike@unizik.edu.ng

Correspondence: f.abiahu@unizik.edu.ng

CITATION: Abiahu, M.C. & Egbunike, P.A. (2025). Effect of post-IFRS research and development recognition on the corporate value of listed food and beverages firms in Nigeria, *Journal of Global Accounting*, 11(4), 91 - 109. Available: <https://journals.unizik.edu.ng/joga>

ABSTRACT

The study examined the effect of post-IFRS research and development recognition on the corporate value of listed food and beverages firms in Nigeria. The specific objective was to examine the effect of post-IFRS research and development recognition on the Tobin's Q of listed food and beverages firms in Nigeria. Ex-post facto research design was adopted in the study. The population comprised 16 listed food and beverage firms in Nigeria. A purposive sampling technique was applied to select 12 food and beverage firms that have been continuously listed from 2012 to 2024. Secondary data was collected from the firms' annual reports over thirteen years (2012-2024). Descriptive analysis was used in summarizing the dataset, while hypotheses were tested using panel-estimated generalised least squares. It was found that Post-IFRS research and development recognition has a significant and negative effect on the Tobin's Q of listed food and beverages firms in Nigeria ($b = -0.75$, p -value = 0.0000). In conclusion, within the Nigerian food and beverage industry, higher levels of Research and development recognition under IFRS are associated with lower market valuations. The study recommends that research and development managers in manufacturing firms should work closely with finance departments to develop measurable performance indicators for ongoing R&D projects and ensure these are consistently reported, so that stakeholders can link R&D activities with tangible progress toward value creation.

Key words: Corporate Value, Post-IFRS Research and Development Recognition, Tobin's Q.

INTRODUCTION

In the current era of globalization and rapid technological advancement, businesses operate in a highly competitive environment that demands constant innovation and adaptation (Okeke, et al., 2022). The food and beverages sector, a vital part of Nigeria's economy, faces increasing pressure to meet evolving consumer preferences, comply with stricter regulatory standards, and improve operational efficiencies (Amaechi & Onuoha, 2023). Companies in this sector must not only focus on traditional factors such as cost control and market expansion but also on innovation through research and development to maintain relevance and drive

growth. The accounting standards governing how these innovations are recognized financially have undergone significant changes with the adoption of the International Financial Reporting Standards (IFRS) (Dinh et al., 2015). These standards, adopted by Nigeria in 2012 for listed companies (Okoye et al., 2012), have altered how intangible assets such as research and development expenditures are accounted for in financial statements. The recognition of research and development (R&D) costs after IFRS adoption has become a subject of interest because it affects the way firms report their investments in innovation, which in turn can influence investor perceptions and the valuation of companies (Hołda, 2024). This study focuses on understanding the effect of post-IFRS R&D recognition on the corporate value of food and beverage firms listed in Nigeria, considering the critical role this sector plays in the Nigerian economy and the unique challenges it faces.

Corporate value is a fundamental measure reflecting the overall worth of a company as perceived by investors, stakeholders, and the market (Adamu & Hamidah, 2024). It captures not just current financial performance but also future growth prospects, competitive advantage, and risk factors. In today's business environment, where shareholders are increasingly focused on maximizing their wealth (Abiahu et al., 2018), corporate value is influenced by many factors, including financial transparency, innovation capacity, market conditions, and regulatory frameworks (Umoru et al., 2023). Post-IFRS recognition of R&D expenses is particularly relevant because it affects how innovation-related expenditures are reported, potentially altering stakeholders' evaluation of a company's growth potential and risk profile. Anidebe et al. (2021) argued that R&D spending is widely seen as a critical driver of innovation, helping firms develop new products, improve processes, and enter new markets. Thus, proper recognition of these investments can signal a firm's commitment to future growth, which investors often reward with higher valuations (Dinh et al., 2015). On the other hand, the way R&D is expensed or capitalized under IFRS rules can create challenges, such as increased volatility in reported earnings or ambiguity about the real value of intangible investments. For listed food and beverage firms in Nigeria, which often operate in a challenging economic climate marked by fluctuating demand and infrastructural constraints, clear and consistent reporting of R&D efforts can influence investor confidence and, by extension, corporate value.

The recognition of R&D expenditures under IFRS can have significant implications for corporate value because it affects the way firms reflect their investment in innovation in financial statements (Papanastasopoulos & Vasilatos, 2024). IFRS standards require certain

criteria to be met before R&D costs can be capitalized as intangible assets rather than expensed immediately (Ma & Zhang, 2023). This treatment impacts both the statement of financial position and income statement, influencing key financial ratios and metrics used by investors to assess firm value. When R&D expenditures are capitalized, they increase assets on the balance sheet and defer costs to future periods, which can improve current profitability metrics and signal long-term value creation. Conversely, immediate expensing of R&D costs can reduce reported profits in the short term, potentially leading to negative market reactions (Shah et al., 2013). For food and beverage firms in Nigeria, where innovation is becoming increasingly important to address challenges such as product differentiation, shelf life extension, and compliance with health standards, how R&D is recognized post-IFRS adoption can affect investor perceptions of the firm's innovation capacity and growth potential.

Additionally, the credibility and transparency associated with IFRS-compliant reporting may enhance investor trust, further influencing firm valuation. While IFRS requires that most R&D costs be expensed unless they meet stringent capitalization criteria, this often results in reduced reported earnings in the short term, which may lead investors to undervalue firms that are actively engaging in innovation. This is particularly concerning in an industry where product development cycles are long, and the tangible results of R&D investments may take years to materialize, causing market indicators such as Tobin's Q to reflect a negative short-term assessment of such activities. The persistence of this pattern suggests that post-IFRS R&D recognition may not be effectively capturing or communicating the potential long-term benefits of innovation to investors in the Nigerian food and beverages industry, raising questions about the implications for corporate value and market competitiveness. While prior research has explored the relationship between R&D expenditure and firm performance across various sectors and countries, there remains a clear gap in understanding this dynamic within the context of post-IFRS recognition in Nigeria's food and beverages industry. Studies such as Ahmad et al. (2025), Ali et al. (2025), Sulistiawan and Rudiawarni (2025), Qadir (2022), Rahman and Howlader (2022), Anidebe et al. (2021), and Pervan and Pavic (2020) have examined R&D's impact in settings ranging from Pakistan's textile sector to technology firms in global markets, revealing diverse and often contradictory results—some showing positive effects on market value and profitability, others finding no significant relationship. However, these investigations largely overlook sector-specific characteristics such as the regulatory environment, consumer preferences, and competitive dynamics in Nigeria's food and beverages sector, especially under the IFRS framework, which alters the recognition and reporting of R&D expenditures. Moreover, most prior studies (e.g., Ahmad et al., Ali et al.,

Sulistiawan and Rudiawarni, Qadir, Rahman and Howlader, Anidebe et al., Pervan and Pavic) have focused on either pre-IFRS periods, international markets, or industries where R&D is traditionally more prominent, leaving a gap in understanding how post-IFRS reporting influences the perceived and actual corporate value in Nigeria's food and beverages industry from 2012 onward. This study addresses that gap by investigating the effect of post-IFRS R&D recognition on corporate value in this underexplored sector.

Objective

The main aim of the study is to examine the effect of post-IFRS research and development recognition on the corporate value of listed food and beverages firms in Nigeria. The specific objective is stated below:

1. To examine the effect of post-IFRS research and development recognition on the Tobin's Q of listed food and beverages firms in Nigeria.

LITERATURE REVIEW

Post-IFRS Research and Development Recognition

Post-IFRS Research and Development Recognition refers to the accounting treatment and acknowledgement of costs related to innovation activities under the IFRS framework (Shah et al., 2013; Dinh et al., 2015). It involves how companies identify, measure, and report expenses and assets associated with developing new products, services, or processes (Holda, 2024). This recognition aims to provide a realistic reflection of the economic benefits expected from these innovative efforts in the company's financial statements. It marks a shift from prior accounting rules that may have treated research and development costs differently, emphasizing the need for consistency and comparability in financial reporting across different entities and jurisdictions (Papanastasopoulos & Vasilatos, 2024).

Recognition under IFRS distinguishes between the research phase, where costs are typically expensed as incurred, and the development phase, where certain conditions permit the capitalization of costs (Shah et al., 2013). This approach requires companies to meet specific criteria before recognizing development costs as intangible assets, including demonstrating technical feasibility and intention to complete the project for use or sale (Holda, 2024). The post-IFRS treatment, therefore, necessitates a careful and detailed evaluation of development activities, reflecting a more rigorous and standardized approach to capturing innovation efforts in the accounts. By recognizing research and development expenditures in this way, financial statements provide a more informative view of a company's investment in future

growth (Papanastopoulos & Vasilatos, 2024). This recognition can influence reported profits, asset values, and ultimately, how investors and other stakeholders perceive the firm's prospects. It offers transparency regarding the resources allocated to innovation and assists in assessing the potential returns from those investments (Dinh, et al., 2015). As companies increasingly depend on innovation to sustain a competitive advantage, the way they report these activities becomes essential in reflecting their operational reality and strategic focus. The significance of this recognition lies in its ability to communicate a company's commitment to growth and value creation through innovation. It bridges the gap between expenditure on development activities and the tangible representation of these efforts in financial reports (Papanastopoulos & Vasilatos, 2024). Post-IFRS research and development recognition therefore, plays a vital role in financial communication, influencing investment decisions, valuation, and corporate reputation by providing a clear account of how firms invest in and benefit from innovative projects.

H₀₁: Post-IFRS research and development recognition has no significant effect on the Tobin's Q of listed food and beverages firms in Nigeria.

Corporate Value

Corporate value refers to the overall worth or economic value of a business as perceived by its stakeholders, including investors, management, customers, and the market (Adamu & Hamidah, 2024; Abiahu et al., 2020). It embodies the cumulative result of a company's operations, assets, earnings, and future potential to generate returns. This worth is not limited to tangible assets like machinery or buildings. However, it extends to intangible elements such as brand reputation, customer loyalty, intellectual property, and strategic positioning in the market. Corporate value represents how the company is regarded in terms of its ability to sustain and grow its business over time (Ibrahim, 2017). The measurement of corporate value can vary depending on the perspective taken. For shareholders, it may relate to market capitalization or the price investors are willing to pay for a share of the company. For managers and analysts, it can involve estimating the net present value of expected future cash flow or the firm's ability to generate consistent profits. Regardless of the method, corporate value captures the total benefits a company provides, reflecting both its current performance and its potential to create wealth in the future (Elom et al., 2025).

Corporate value is shaped by many factors, including operational efficiency, competitive environment, innovation capacity, and governance quality. It is an important indicator of a company's success in managing resources and risks to achieve sustainable growth. Firms with

higher corporate value tend to have greater access to capital, stronger market positions, and enhanced credibility with stakeholders (Adamu & Hamidah, 2024). The value signals the effectiveness of strategic decisions and the company's capacity to adapt to changing market conditions (Ukoh et al., 2024; Okeke, et al., 2025). Thus, corporate value is a dynamic measure influenced by external economic conditions, industry trends, and internal capabilities. It serves as a key reference for investment decisions, mergers and acquisitions, and performance evaluations.

Tobin's Q

Tobin's Q is a financial ratio that compares the market value of a company's assets to their replacement cost (Ibrahim, 2017). It serves as an indicator of how the market values a firm relative to the book value of its tangible and intangible assets. A ratio greater than one suggests that the market values the company more highly than the cost to replace its assets, implying expectations of strong future growth or profitability (Ajibola, 2025). Conversely, a ratio below one indicates that the market values the firm less than its replacement cost, which may reflect concerns about the firm's performance or prospects.

The ratio is named after James Tobin, an economist who developed this measure to capture the relationship between market valuations and physical capital investment. Tobin's Q offers a useful way to assess whether a company's stock price reflects real asset values or whether it is influenced by market speculation, growth opportunities, or risks (Ishaq et al., 2021). It integrates information from both financial markets and accounting data, providing a broader understanding of a company's value beyond simple earnings or asset measures.

Tobin's Q is widely used by researchers and practitioners to study investment behavior, corporate finance decisions, and market efficiency. A high Tobin's Q may encourage firms to invest in new projects since the market perceives that additional assets will add value (Ajibola, 2025). On the other hand, a low ratio might discourage investment, signaling that the market does not believe additional spending will generate sufficient returns. This relationship helps explain how firms respond to market conditions in allocating resources for growth and innovation.

Theoretical Review

The study is anchored on Value Relevance Theory, which was derived from the philosophy of science of the German sociologist Max Weber (Fuller, 2017). The main idea behind Value Relevance Theory is that accounting information is valuable to investors when it affects their decisions, specifically by helping them determine the value of a company (Abdelrahim et al., 2023). The theory suggests that financial reports, including disclosures on earnings, assets, liabilities, and investments, play a crucial role in shaping market prices of shares. If the information is relevant, investors use it to adjust their valuation of a company, which in turn affects stock prices. The theory also acknowledges that not all accounting information holds the same weight; some elements are more significant in explaining market movements and corporate worth (Felix & Umanhonien, 2015). Thus, the degree of relevance depends on how well the reported information corresponds with the market's perception of value.

This theory relates directly to the topic of post-IFRS research and development recognition and its effect on corporate value. Since the adoption of IFRS requires more transparent and standardized reporting of intangible assets such as research and development, the value relevance theory helps explain how these disclosures influence investors' perceptions and the firm's market value. By recognizing R&D expenditures according to IFRS standards, firms provide financial data that could either enhance or diminish market confidence. Therefore, Value Relevance Theory offers a useful lens through which to analyze how these accounting changes affect the stock prices and overall valuation of listed food and beverage companies in Nigeria. It guides the understanding of whether the post-IFRS R&D recognition is meaningful to investors and how it shapes the company's corporate value.

Empirical Review

Ahmad et al. (2025) conducted a study on the relationship between research and development (R&D) expenditures and firm performance within Pakistan's textile sector. The researchers utilized regression analysis on financial data collected from 55 textile manufacturing companies listed on the Pakistan Stock Exchange (PSX) spanning the years 2010 to 2018. Performance was measured using Return on Assets (ROA) as a key indicator. Their findings revealed that R&D spending positively influenced firm performance, particularly benefiting emerging companies more than their established counterparts. However, it was also noted that larger firms tended to experience lower profitability, a situation attributed potentially to operational inefficiencies inherent in larger organizational structures.

Similarly, Ali et al. (2025) examined how R&D investments affect the financial performance of firms listed on the PSX, using data from 2005 through 2021. The study covered a dynamic panel of 51 companies across diverse sectors and employed a sophisticated econometric method, the two-step System Generalized Method of Moments (System GMM), to control for endogeneity and unobserved heterogeneity among firms. Two performance metrics were applied: ROA representing accounting-based profitability, and Tobin's Q capturing market valuation. The results demonstrated a contrasting effect of R&D intensity: while it reduced short-term profitability (ROA) due to immediate costs and accounting implications, it significantly enhanced the long-term market valuation (Tobin's Q), reflecting investors' positive outlook on innovation-driven growth.

In another investigation, Sulistiawan and Rudiawarni (2025) explored how R&D activities influence the value relevance of financial information for firms listed on both the Nasdaq and Shanghai stock exchanges. Utilizing panel data regression, they found that accruals—an accounting measure—generally remain relevant for investors. However, for non-technology firms and those lacking intangible assets, R&D expenditures actually diminished the explanatory power of accruals regarding stock prices. Conversely, for technology-oriented firms and those possessing intangible assets, R&D investment increased the relevance of accruals. This trend was consistent across both stock markets studied, underscoring the varying impact of innovation investments depending on firm characteristics.

Qadir (2022) focused on the technology sector to examine how R&D affects firm value, comparing three major companies: Apple, Microsoft, and Huawei. The study covered data from 2011 to 2021, employing secondary data sources combined with descriptive statistics, regression, and correlation analysis. It was found that Apple and Microsoft, which invested heavily in R&D, enjoyed significantly higher stock prices relative to Huawei. The study noted that Huawei's results were statistically insignificant, suggesting that R&D spending did not translate into a measurable impact on its stock price over the period examined.

Rahman and Howlader (2022) explored the association between R&D spending and both firm performance and value in an emerging market context. They used financial metrics such as ROA and Return on Equity (ROE) to gauge firm performance, and Tobin's Q as a market-based indicator of firm value. Employing pooled ordinary least squares (OLS) regression, with both current and lagged variables, the study demonstrated a consistently positive and statistically significant relationship between R&D expenditure and firm outcomes. The

robustness of the results was ensured by tests confirming the absence of outliers and multicollinearity, reinforcing confidence in the findings.

On the contrary, Anidebe et al. (2021) investigated the effect of R&D expenditures on firm value among industrial goods firms listed on the Nigerian Stock Exchange, focusing on the period 2010 to 2019. The study used an ex-post facto design with purposive sampling of seven companies that had relevant data. Firm value was measured using Tobin's Q, earnings per share (EPS), and market price per share. Multiple regression analysis and descriptive statistics were employed, revealing no significant relationship between R&D expenditure and firm value. Nonetheless, the authors suggested that despite the statistical insignificance, effective R&D investments may still foster innovation and improve production and product quality, thereby enhancing firm value over the longer term.

Similarly, Pervan and Pavic (2020) analyzed the impact of R&D spending on the performance of the largest manufacturing companies in Croatia during 2018. Using multiple regression techniques, firm performance was assessed through ROA and net profit margin, with R&D expenditure and other control variables such as firm size, age, and liquidity included. Their results were mixed: R&D expenditure showed potential for either a positive or negative impact on performance depending on the performance measure considered, but in all instances, these effects were statistically insignificant, pointing to the complexity and context-specific nature of R&D's influence on firm outcomes.

MATERIALS AND METHOD

This study employed an ex-post facto research design to examine the effect of post-IFRS recognition of research and development on the corporate value of listed food and beverage firms in Nigeria. This approach is appropriate because the study uses existing historical data sourced from published financial statements and annual reports of the firms. The population consists of all companies listed under the food and beverage sector on the Nigerian Exchange Group as of December 31, 2024.

Table 1: Population

Firms
1. Bua Foods Plc
2. Cadbury Nigeria Plc
3. Champion Breweries Plc
4. Dangote Sugar Refinery Plc
5. Golden Guinea Breweries Plc
6. Guinness Nigeria Plc
7. Honeywell Flour Mills Plc
8. International Breweries Plc
9. McNichols Plc
10. Multi-Trex Integrated Foods Plc
11. Northern Nigeria Flour Mills Plc
12. Nascon Allied Industries Plc
13. Nestlé Nigeria Plc
14. Nigerian Breweries Plc
15. Unilever Nigeria Plc
16. Union Dicon Salt Plc

Source: Nigerian Exchange Group (2024)

A purposive sampling technique was applied to select 12 food and beverages firms that have been continuously listed from 2012 to 2024 and have complete annual reports available for the entire study period. The following were the sampled firms: Cadbury Nigeria Plc, Champion Breweries Plc, Dangote Sugar Refinery Plc, Guinness Nigeria Plc, Honeywell Flour Mills Plc, International Breweries Plc, Northern Nigeria Flour Mills Plc, Nascon Allied Industries Plc, Nestlé Nigeria Plc, Nigerian Breweries Plc, Unilever Nigeria Plc, and Union Dicon Salt Plc. Secondary data were sourced from the firms’ annual reports from 2012-2024 (thirteen years). To make the analysis more robust and to reduce omitted-variable bias, firm size was added as a control variable.

Table 2 Operational Definitions and Measurements of Variables

Variable	Type	Measurement
Tobin’s Q	Dependent	$(\text{Market value of equity} + \text{book value of debt}) \div \text{book value of total assets}$
Post-IFRS research and development recognition	Independent	Total R&D expenditure capitalised or expensed in compliance with IFRS
Firm Size	Control Variable	Natural log of firm total asset

Source: Researcher’s Compilation (2025)

The analysis begins with descriptive statistics to provide a clear summary of the data’s characteristics, including measures such as the mean, standard deviation, and range for each variable. This helps to highlight patterns and variations in research and development recognition and corporate value indicators throughout the study period. For the main analysis, panel regression methods are applied because the dataset includes information from multiple food and beverage firms over several years. This technique accounts for differences between

individual firms as well as changes over time, enhancing the accuracy of the findings. A significance level of 5 percent is used, which means that any result with a p-value below 0.05 is regarded as statistically meaningful.

The regression model estimated is restated below as follows:

$$TQ_{it} = \alpha_0 + \beta_1 RDR_{it} + \beta_2 FSIZE_{it} + \mu_{it} \dots\dots\dots \text{Eqn 1.}$$

Where:

TQ = Tobin's Q

RDR = Post-IFRS research and development recognition (amount of R&D expenditure recognised under IFRS)

FSIZE = Firm Size

α_0 = Constant term

$\beta_1 - \beta_2$ = Coefficients of explanatory variables

μ_{it} = Error term for firm i in year t

RESULT AND DISCUSSIONS

Descriptive Analysis

Table 3 Descriptive Statistics

	TQ	Research & Development (₦'000)	FSIZE
Mean	5.956510	41231.29	7.619456
Median	1.726916	0.000000	7.870683
Maximum	83.61750	463325.0	9.051642
Minimum	0.611071	0.000000	4.758056
Std. Dev.	13.68685	107291.0	0.984500
Skewness	3.696610	2.897814	-1.356936
Kurtosis	16.33872	10.37249	4.589728
Jarque-Bera	1511.777	571.6285	64.30017
Probability	0.000000	0.000000	0.000000
Sum	929.2155	6432081.	1188.635
Sum Sq. Dev.	29036.12	1.78E+12	150.2323
Observations	156	156	156

Source: E-Views 10.0 Descriptive Output, 2024

The dependent variable Tobin's Q (TQ) in Table 3 shows an average value of approximately 5.96, suggesting that on average, the combined market value of equity and book value of debt is nearly six times the book value of total assets for the listed food and beverage firms in Nigeria. The maximum TQ value recorded is 83.62, indicating that some firms have a market valuation much higher than their book value, which could reflect strong investor confidence or significant growth expectations. Conversely, the minimum value of 0.61 suggests that some firms are valued below their asset base, which may indicate underperformance or market

pessimism. The standard deviation of 13.69 indicates considerable variability in Tobin's Q across the firms, reflecting differing market perceptions and firm performance levels. The positive skewness of 3.70 shows that the distribution of Tobin's Q is right-skewed, meaning there are a few firms with exceptionally high values pulling the average upward. A kurtosis of 16.34 suggests a leptokurtic distribution, with heavier tails than a normal distribution, implying that extreme values (both high and low) are more frequent. The Jarque-Bera test probability of zero confirms that Tobin's Q values are not normally distributed. However, since the sample size is 156 observations, the central limit theorem suggests that non-normality should not affect the reliability of the regression results.

For the independent variable, post-IFRS research and development recognition, the descriptive statistics in Table 3 reveal a mean R&D expenditure of approximately ₦41,231,290. This average indicates the typical investment level in R&D activities recognized by firms under IFRS guidelines. The maximum expenditure of ₦463,325,000 shows that some firms allocate substantial resources toward research and development, which could be linked to their innovation strategies or growth ambitions. At the other end, the minimum value of zero indicates that some firms did not record any R&D expenditure during the study period. The standard deviation is very high at ₦107,291,000, reflecting wide disparities in R&D spending across the sample, likely driven by differences in firm size, strategy, or sector subcategories. The positive skewness of 2.90 indicates the data distribution is right-skewed, meaning most firms have lower R&D expenditure with a few outliers investing heavily. The kurtosis of 10.37, higher than normal, signals that extreme values occur more often than in a typical normal distribution. The Jarque-Bera test again shows a probability of zero, confirming non-normality, but with the dataset's size of 156, this will not undermine the robustness of the analysis.

Firm size, used as a control variable, is measured by the natural logarithm of total assets and displays a mean value of about 7.62 in Table 3. This suggests that the average firm in the sample has total assets equivalent to approximately 2,035,000 when exponentiated, providing an idea of the scale of the firms studied. The largest firm has a log size of 9.05, indicating very substantial total assets, while the smallest firm's log size of 4.76 shows a much smaller scale of operations. The standard deviation of 0.98 indicates moderate variability in firm size across the sample, suggesting a mix of small, medium, and large companies. Unlike the other variables, firm size shows a negative skewness of -1.36, which means the distribution is left-skewed, with a longer tail on the smaller firm side, suggesting more firms cluster at higher

sizes but some are significantly smaller. The kurtosis of 4.59 suggests the distribution is more peaked than normal, indicating a concentration of firms around the mean size but with some outliers. The Jarque-Bera test probability is zero, confirming that firm size also does not follow a normal distribution. Given the dataset includes 156 observations, the central limit theorem assures that the regression results remain reliable despite these distributional characteristics.

Test of Hypothesis

H₀₁: Post-IFRS research and development recognition has no significant effect on the Tobin's Q of listed food and beverages firms in Nigeria.

Table 4: Test of Hypothesis

Dependent Variable: TQ
 Method: Panel EGLS (Cross-section SUR)
 Date: 08/12/25 Time: 04:56
 Sample: 2012 2024
 Periods included: 13
 Cross-sections included: 12
 Total panel (balanced) observations: 156
 Linear estimation after one-step weighting matrix
 Cross-section SUR (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RDR	-0.749769	0.031710	-23.64436	0.0000
FSIZE	-9.183279	0.300979	-30.51134	0.0000
C	76.59117	2.430304	31.51506	0.0000
Weighted Statistics				
R-squared	0.911829	Mean dependent var		1.285741
Adjusted R-squared	0.910676	S.D. dependent var		3.045697
S.E. of regression	0.974762	Sum squared resid		145.3747
F-statistic	791.1286	Durbin-Watson stat		1.855928
Prob(F-statistic)	0.000000			

Source: E-Views 10.0 Regression Output, 2024

The regression results are presented in Table 4. The adjusted R-squared value is 0.911, indicating that approximately 91.1% of the variation in Tobin's Q among the listed food and beverage firms in Nigeria is explained by the model, which includes post-IFRS research and development recognition (RDR) and firm size (FSIZE). This suggests the model fits the data very well and captures the key factors influencing Tobin's Q. The F-statistic probability is effectively zero, confirming the model is statistically significant overall, meaning the combination of explanatory variables significantly explains differences in Tobin's Q at a 5%

significance level. The Durbin-Watson statistic is approximately 1.86, which is close to the value of 2, suggesting that there is no serious problem of autocorrelation in the residuals, and the regression results can be trusted. The constant term has a coefficient of 76.59 with a p-value of zero, indicating it is statistically significant at the 5% level. This means that when both RDR and FSIZE are zero, the expected Tobin's Q value would be 76.59, which serves as a baseline value in this model.

Next, firm size (FSIZE), which is included as a control variable, also shows a statistically significant negative effect on Tobin's Q, with a coefficient of -9.18 and a p-value of 0.0000. This means that as firm size increases by one natural log unit in total assets, Tobin's Q decreases by approximately 9.18 units, assuming RDR remains constant. The result suggests that larger firms in the Nigerian food and beverage sector tend to have lower market valuation relative to their book assets compared to smaller firms. This could reflect challenges that come with managing larger firms, such as inefficiencies, reduced growth prospects, or less investor confidence, which might be particularly pronounced in this industry.

Turning now to the key independent variable, post-IFRS research and development recognition (RDR), the coefficient is -0.75 with a p-value of 0.0000, meaning the effect is statistically significant at the 5% level. This coefficient tells us that for every one-unit increase in R&D expenditure recognized according to IFRS standards, Tobin's Q decreases by about 0.75 units, holding firm size constant. In practical terms, this suggests that higher levels of capitalized or expensed R&D spending after adopting IFRS are associated with a reduction in the corporate value of listed food and beverage firms as measured by Tobin's Q. The negative effect could imply that investors in this sector may view R&D expenditures post-IFRS with some skepticism or consider these costs as detracting from immediate firm value, possibly due to uncertainty about the short-term returns on these investments.

The finding that post-IFRS research and development (R&D) recognition has a significant and negative effect on the Tobin's Q of listed food and beverages firms in Nigeria ($\beta = -0.75$, $p = 0.0000$) suggests that the market currently views post-IFRS R&D expenditures more as immediate costs than as long-term value drivers. This outcome could be due to the inherent characteristics of the food and beverages sector, where innovation cycles tend to be less radical compared to high-technology industries, making R&D outcomes less immediately visible in market valuations. In addition, IFRS requires R&D to be expensed unless strict capitalization criteria are met, which means that most R&D recognition appears as an expense

in financial statements, potentially signaling reduced short-term profitability to investors. This aligns with the argument of Ali et al. (2025), who found that R&D intensity reduced short-term profitability despite its potential for boosting long-term Tobin's Q in other contexts. However, the negative effect in the Nigerian food and beverages sector suggests that investors may not have strong confidence in the future market returns from these R&D activities, possibly due to the sector's competitive structure and regulatory environment.

Empirical evidence on this matter is mixed. The result contrasts with Rahman and Howlader (2022), who reported a significant positive relationship between R&D expenditure and Tobin's Q in an emerging economy, indicating that in their context, investors rewarded R&D with higher market valuations. Similarly, Ahmad et al. (2025) observed that R&D investments significantly improved firm performance in Pakistan's textile industry, particularly for emerging firms. Conversely, the finding here is consistent with Sulistiawan and Rudiawarni (2025), who found that for non-technology firms, R&D spending reduced the value relevance of accruals, a scenario that closely resembles the Nigerian food and beverages sector where R&D outcomes may not be immediately marketable or visibly transformative. Likewise, Anidebe et al. (2021) reported no significant effect of R&D on Tobin's Q for Nigerian industrial goods companies, suggesting a broader regional challenge in translating R&D spending into market value in traditional manufacturing sectors. The consistency of this negative perception across certain industries highlights that while R&D is vital for innovation, its recognition under IFRS may unintentionally lead to market undervaluation in sectors where innovation payoffs are slow to materialize.

CONCLUSION AND RECOMMENDATION

The finding that post-IFRS research and development recognition has a significant and negative effect on the Tobin's Q of listed food and beverages firms in Nigeria carries important implications for understanding how market participants perceive innovation-related expenditures in this sector. Tobin's Q, as a measure of corporate value, reflects the market's assessment of a firm's growth potential relative to the value of its assets. A negative relationship suggests that, within the Nigerian food and beverage industry, higher levels of R&D recognition under IFRS are associated with lower market valuations. This outcome may be linked to the nature of IFRS requirements, which impose stricter criteria for capitalizing development costs and mandate expensing of research costs, potentially leading to increased reported expenses in the short term and reduced accounting earnings. In industries such as food and beverages, where tangible production capacity, supply chain efficiency, and brand

positioning often dominate investor considerations, R&D spending might be viewed as a longer-term, uncertain investment with delayed or unpredictable payoffs. The result may also indicate that investors have limited confidence in the ability of R&D projects within this industry to generate immediate competitive advantages or significant product breakthroughs, especially in a market environment where consumer preferences, regulatory constraints, and cost pressures play major roles in shaping performance. Additionally, the Nigerian capital market's efficiency and the depth of its understanding of intangible investment benefits could influence how R&D recognition impacts firm valuation. In contexts where short-term profitability weighs heavily on investor sentiment, the recognition of R&D costs, even when compliant with IFRS, might signal resource allocation away from immediate returns toward uncertain future gains, thereby exerting downward pressure on Tobin's Q. This underscores a complex interaction between financial reporting rules, industry characteristics, and investor behavior in shaping corporate value.

In line with the above, the study recommended that research and development managers in manufacturing firms should work closely with finance departments to develop measurable performance indicators for ongoing R&D projects and ensure these are consistently reported, so that stakeholders can link R&D activities with tangible progress toward value creation.

REFERENCES

- Abdelrahim, A. K. O., & Shareif Hussein Shanak, H. (2023). The value relevance of accounting information: Empirical evidence from Jordan. *International Journal of Law and Management*, 65(4), 354-367.
- Abiahu, M.C.; Udeh, F.N; Okegbe, T.O. & Eneh, O.M. (2020). Fair Value Accounting and Reporting, and Firm Value: Evidence from Quoted Deposit Money Banks in Nigeria. *Asian Journal of Economics, Business and Accounting*, 17(1), 46-53, doi: 10.9734/AJEBA/2020/v17i130253
- Abiahu, M.F.C., Udeh, F.N. & Ogbekhilu, M.E. (2018). Modelling correlation between shareholders dividends and corporate performance in Nigeria. *Journal of Modern Accounting and Auditing*, 14(10): 570-581. doi: 10.17265/1548-6583/2018.10.004
- Adamu, I., & Hamidah, H. (2024). Assessing the impact of capital structure on firm value: a quantitative study of financial ratios and stock prices of Nigeria Food and Beverage Companies. *The Indonesian Journal of Accounting Research*, 26(3), 483-516.

- Ahmad, A., Munir, S., & Khan, N. (2025). The role of research & development in shaping firm performance: evidence from Pakistani textile industry. *Center for Management Science Research*, 3(4), 215-224.
- Ajibola, A. (2025). Tobin-Q Valuation Methodology of the Impact of Corporate Governance Structure on Organizational Performance: Evidence from Nigeria's Banking Sector. *BRICS Journal of Economics*, 6(1), 35-52.
- Ali, G., Amin, M. Y., & Akbar, S. (2025). The Effect of Research and Development (R&D) Investments on the Firm Financial Performance. *Journal of Management & Social Science*, 2(3), 54-65.
- Amaechi, I. D., & Onuoha, B. C. (2023). Organizational Flexibility and Adaptive Capability of Food and Beverage Firms in Rivers State. *International Journal of Business and Economics*, 8(6), 16-27.
- Anidebe, F. C., Umenzekwe, P. C., & Uchegbu, C. U. (2021). Research and development expenditures and firm value of selected industrial goods companies in Nigeria. *Journal of Contemporary Issues in Accounting*, 2(1), 129-140.
- Dinh, T., Eierle, B., Schultze, W., & Steeger, L. (2015). Research and development, uncertainty, and analysts' forecasts: the case of IAS 38. *Journal of International Financial Management & Accounting*, 26(3), 257-293.
- Elom, J., Nworie, G. O., Ugwu, J., Nwogo, J., & Nwele, A. (2025). Carbon management disclosure and firm value in the Nigerian energy market. *Journal of Current Social Issues Studies*, 2(7), 8-23. <https://doi.org/10.71113/JCSIS.v2i7.333>
- Felix, U. O., & Umanhonien, R. (2015). Theory of conservatism and value relevance of accounting information. *Journal of Accounting and Marketing*, 49(1), 1-8.
- Fuller, S. (2017). Value Neutrality and Value Relevance. *The Wiley-Blackwell Encyclopedia of Social Theory*, 1-2.
- Hołda, A. (2024). Do We Need a New Approach to R&D Works in Financial Reporting?. *Central European Economic Journal*, 11(58), 346-363.
- Ibrahim, M. (2017). Capital structure and firm value in Nigerian listed manufacturing companies: An empirical investigation using Tobin's Q model. *International Journal of Innovative Research in Social Sciences & Strategic Management Techniques*, 4(2), 112-125.
- Ishaq, M., Islam, Y., & Ghouse, G. (2021). Tobin's Q as an indicator of firm performance: Empirical evidence from manufacturing sector firms of Pakistan. *International Journal of Economics and Business Administration*, IX, 1, 425-441.

- Ma, S., & Zhang, W. (2023). How to improve IFRS for intangible assets? A milestone approach. *China Journal of Accounting Research*, 16(1), 100289.
- Okeke, O.C., Abiahu, M-F.C. & Ogundajo, G.O. (2025). IFRS 7/9 – determinants of financial instrument disclosure in emerging markets and the moderating effect of foreign ownership: evidence from Nigeria. *Int. J. Accounting, Auditing and Performance Evaluation*, 21(3/4), 398–421.
- Okeke, O.C., Okere, W., Dafyak, C.F. & Abiahu, M-F.C. (2022). Inventory management and financial sustainability: Insight from quoted manufacturing firms in Nigeria. *Int. J. Managerial and Financial Accounting*, 14(1), 84–97.
- Okoye, E.I., Nwoye, U.J. & Abiahu, M-F.C. (2018). Forestalling Ingenious Approach to Financial Reporting in Post IFRS Regime in Dangote Cement Company Nigeria PLC, *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(2), 259–271. DOI: 10.6007/IJARAFMS/v8-i2/4380.
- Papanastasopoulos, G. A., & Vasilatos, A. M. (2024). R&D Accounting Treatment and Firm Future Performance: Evidence from Greece. *Theoretical Economics Letters*, 14(6), 2265-2283.
- Pervan, M., & Pavic Kramaric, T. (2020). Impact of research and development expenditure on firm performance. In *The 14th International Days of Statistics and Economics* (pp. 816-825). Melandrium.
- Qadir, D. (2022). Effect of Research and Development on Firm Value: Cross-country Evidence from the Technological Sector. https://mpr.aub.uni-muenchen.de/114596/1/MPRA_paper_114596.pdf
- Rahman, M. M., & Howlader, M. S. (2022). The impact of research and development expenditure on firm performance and firm value: Evidence from a South Asian emerging economy. *Journal of Applied Accounting Research*, 23(4), 825-845.
- Shah, S. Z. A., Liang, S., & Akbar, S. (2013). International Financial Reporting Standards and the value relevance of R&D expenditures: Pre and post IFRS analysis. *International Review of Financial Analysis*, 30, 158-169.
- Sulistiawan, D., & Rudiawarni, F. A. (2025). Revisiting the ability of research and development activities to improve value relevance. *Business Process Management Journal*, 31(1), 228-244.
- Ukoh, U. M., Nduokafor, C. O. & Nworie, G. O. (2024). Sustainability Reporting among Oil and Gas Firms: a Strategic Tool for Enhanced Firm Value. *International Journal of*



Economics and Financial Management, 9(2), 144-166.

<https://doi.org/10.56201/ijefm.v9.no2.2024.pg144.166>

Umoru, B., Emmanuel, O. O., Shiro, A. A., & Arikewuyo, K. A. (2023). Determinants of Firm Value: Using Selected Accounting Ratios in Nigerian Banks. *African Development Finance Journal*, 5(2), 1-20.