IFRS INNOVATION AND FIRM VALUE OF QUOTED MANUFACTURING COMPANIES IN NIGERIA

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ABSTRACT

This study examined the effect of Post IFRS innovation on firm value of quoted manufacturing firms in Nigeria from 2012-2020 periods. Twenty (20) quoted manufacturing firms constituted the sample size of this study between 2012 and 2020. *Ex-Post facto* research design was adopted while secondary data were extracted from the annual reports and accounts of the sampled firms and were analyzed using E-Views 9.0 statistical software. The study employed descriptive statistics and inferential statistics using regression analysis. The hypothesis was formulated and statistically tested at 5 per cent level of significance. According to data analysis, research and development innovations have a positive and insignificant impact on the firm value of Nigerian quoted manufacturing companies. On the basis of the findings, it was suggested that innovations in research and development should be maintained, resulting in the creation of new products and services by businesses to enable them to survive and thrive in competitive markets.

Keywords: IFRS, Innovation, Research & Development and Firm value

1.0 Introduction

Over the course of the past few years, there has been a lot of hype surrounding the International Financial Reporting Standards (IFRS). Because its implementation has serious implications for financial reporting, it is essential that accountants, finance professionals, and investors all comprehend and learn the IFRS method. The paradigm shifts in the economic environment of the world during last few years has led to increasing attention being devoted to accounting standards as a means towards ensuring potent and transparent financial reporting by any corporate entity. As the world continues to globalize, discussion on convergence of national accounting standards with International Financial Reporting Standards (IFRS) has increased significantly. Nowadays, it is recognized that the success of an organization and its survival, in particular a knowledge-based one, depends on creativity, innovation, and inventiveness (Ezechukwu & Amahalu, 2016). Accordingly, innovation has become the key goal of many organizations because of its potentially significant impact on organizational performance. This recognition embraces not only technological innovations, but also non-technological – organizational, marketing and management innovations. Innovations are perceived to be an important factor affecting an organization's performance and its competitive position as well as a stimulus to economic growth. As a result, innovation has become a priority not only for corporate executives, but also for state governments and the country at large.

A firm's value (FV) is a concept that reflects the value of a business. It is the value that a business is worthy of at a particular date. Like an asset, the value of a firm can be determined on the basis of either book value or market value. It refers to the market value of a company (Fernando, 2021). To assess the value relevance of IFRS, this study focused on firm value because it is a fundamental and more direct way of assessing value creation or destruction in firms, which perhaps explain its broad application in accounting research as a bottom-line performance measure. The methodological gap was resolved by employing Heteroscedasticity test, which prior studies failed to employ. Furthermore, the periodic gap was closed by extending this present study to 2020 contrary to prior studies that ended in 2019. Also, sectorial gap was bridged by considering the entire manufacturing sector quite unlike previous related studies that adopted random sampling technique (to the best knowledge of the researcher), hence the need for this study. It is against this development that this study ascertains the extent of effect of post IFRS research and development innovation on firm value of quoted manufacturing firms in Nigeria.

Research Question

1. To what extent has post IFRS research and development innovation affect firm value of quoted manufacturing firms in Nigeria?

Research Hypothesis

Ho_1: Post IFRS research and development innovation has no significant effect on firm value of quoted manufacturing firms in Nigeria.

H_{11}: Post IFRS research and development innovation has significant effect on firm value of quoted manufacturing firms in Nigeria.

2.0 Review of Related Literature

2.1 Conceptual Review

The use of IFRS helps to ensure transparency and credibility of the accounting statements (Barclay, 2021). IFRS specifies how businesses need to maintain and report their accounts. Created to establish a common accounting language, the goal of the international financial reporting standards is to make financial statements coherent and consistent across different industries and countries (Scott, 2021). IFRS is the international accounting framework within which to properly organize and report financial information. It is derived from the pronouncements of the London-based International Accounting Standards Board (IASB). It is currently the required accounting framework in more than 120 countries. IFRS requires businesses to report their financial results and financial position using the same rules; this means that, barring any fraudulent manipulation, there is considerable uniformity in the financial reporting of all businesses using IFRS, which makes it easier to compare and contrast their financial results (Gordon 2021).

Innovation is the process by which an invention is first put into use, and businesses need knowledge, skills, and entrepreneurial abilities to innovate. It involves the initial design and production of prototypes, as well as the improvement or refinement of the invention. Testing pilot plants and building production facilities—diffusion is the process of bringing an innovation into widespread use as more and more users adopt it. According to Espada-Chavarria, Diaz-Vega, and González-Montesino (2021), innovation is the entire process—from the conception of an idea to the production of a product and its final sale.

2.1.1 Research and Development innovation

According to Kralisch, Ott, Lapkin, Yaseneva, De Soete, Jones, Minkov, and Finkbeiner (2016), organizations must put in a lot of effort in order to survive in a competitive environment. They must allocate their assets effectively to accomplish this. According to the resource-based view theory, businesses will perform better than others if they have valuable resources and capabilities that cannot be replaced and are impossible to duplicate. It is heavily influenced by investments in valuable resources like research and development (R&D). The companies invest millions of dollars in R&D activities. The benefits of this R&D, which include increased performance and internal innovation capacity, outweigh the costs. A company's level of performance will be influenced by its R&D resources. In this technological age, these are the means of improving performance. According to Fang, Dickson, & Wang (2016), businesses that allocate higher R&D expenditures are anticipated to earn more than those that do not. According to Nabiullina, Bystrova, Toriia, Kovaleva, Borisova, Nesmeianova, and Kirakosyan (2020), businesses have an organizational commitment to technological competition. As a result, the businesses should make better products available to make money in the long run. Innovative work assumes a huge part to acquire an edge over current and likely contenders of the organizations. Its benefit would be determined by the particular nature of R&D expenditures. Companies are able to earn profits that are above average or higher than average by investing in research and development (R&D). (On the other hand, this viewpoint is opposed by Maier, Sven-Joachim, Fortmüller, and Maier (2017; Gutierrez, Lleras, & Daz, 2020). They assert that there is no connection between profits and changes in the level of research and development. According to the point of view of a financial backer, Research and development costs are considered a cost though truly, these are the speculations which will produce future incomes as benefits. According to Garechana, Ro-Belver, Bildosola, and Salvador (2017), whereas accounting predicts a positive relationship between R&D investments and firm earnings, finance predicts a negative one. According to Mavroeidis and Tarnawska (2017), a company's performance will outweigh the costs of research and development. After reaching equilibrium, the benefits received will offset the costs associated with R&D. Mavroeidis and Tarnawska (2017) went on to say that novel ideas don't make a big difference. However, they eventually turn out to be company-specific assets.

2.1.2 Firm Value

Firm value is the perception of investors to companies that are often associated with stocks prices. High stock prices make the firm value also high. The high firm value is represented by prosperity level of owners. The firm value also becomes the main focus of the investors. The prosperity level of shareholders and investors can be seen from the firm value itself. It means that the firm value becomes the performance indicator of finance manager in company (Mousa, Sági & Zéman, 2021). The value of a firm is basically the sum of claims of its creditors and shareholders. Therefore, one of the simplest ways to measure the value of a firm is by adding the market value of its debt, equity, and minority interest. Cash and cash equivalents would be then deducted to arrive at the net value (Park & Byun, 2021).

Firm value reflects the value of a business. It is the value that a business is worthy of at a particular date (Yiu, Wu, 2021). Theoretically, it is an amount that one needs to pay to buy/take over a business entity. Like an asset, the value of a firm can be determined on the basis of either book value or market value. Firm value refers to the market value of a company (Loh, Thomas & Wang, 2017).

2.2 Theoretical Review

2.2.1 Knowledge Based View (KBV) Theory

This study is anchored on Knowledge Based View (KBV) Theory. Knowledge-based view of the firm (KBV) is a management concept of organizational learning which was propounded by Grant, R.M. (1996) that provides firms with strategies for achieving competitive advantage. This is achieved through increased employee involvement in the formulation and administration of the operational goals and long-term transformational objectives of the firm. The continuous acquisition and transfer of knowledge within business organizations is necessitated by such factors as ever-changing competitive conditions in markets initiated by globalization, frequent deregulations, and technical advancements. KBV is an important approach towards organizational learning that forms the basis for establishing human capital involvement in the structural and routine activities of the firm. KBV proposes the establishment of heterogeneous knowledge structures across the management hierarchies of a firm as a prerequisite condition for achieving sustainable knowledge-based competitive advantage. This is because knowledge-based resources are always characterized by difficulties of transmission, imitation and social complexities.

The knowledge-based theory of the firm considers knowledge as the most strategically significant resource of a firm. This knowledge is embedded and carried through multiple entities including organizational culture and identity, policies, routines, documents, systems, and employees. It is the theory of the firm that focuses attention on the resources and organizational capabilities as the principal sources of sustainable competitive advantage and the foundation for strategy formulation. KBV suggests that people use their capacity-to-act in order to create value in mainly two directions; by transferring and converting knowledge externally and internally to the organization. The value grows each time a knowledge transfers or conversion takes place. The strategy formulation issues are concerned with how to utilize the leverage and how to avoid the blockages that prevent sharing and conversion. Activities that form the backbone of a knowledge-based strategy are to be aimed at improving the capacity-to-act both inside and outside the organization (Grant, 2016).

2.3 Empirical Review

Kargin (2013) looked at the value relevance of accounting data in the pre- and post-financial periods of IFRS implementation for Turkish listed companies between 1998 and 2011.Using the Ohlson model, market value was connected to book value and earnings per share. When it comes to determining stock prices or market value, overall book value is important. When taking into account book values, the findings demonstrated that the value relevance of accounting information has increased in the post-IFRS period (2005-2011), whereas the value relevance of earnings has not. The impact of IFRS on the value relevance of fundamental accounting data announced by banks listed on the Warsaw Stock Exchange between 1998 and 2012 was the subject of an investigation by Bolibok (2014). The Ohlson residual income valuation model served as the foundation for the analyses. According to the empirical evidence, the observed rise in the value relevance of banks' residual incomes and equity book values following the implementation of IFRS is statistically insignificant. Desoky and Mousa (2014) looked at some earning characteristics of accounting information provided in accordance with International Financial Reporting Standards (IFRS) in the Bahrain Bourse (BHB) and the Muscat Securities Market (MSM), such as the value relevance and predictability. The research used 280 year-firm observations from 40 different BHB-listed companies as the sample; and a total of 203 year-firm observations from 29 MSM-listed businesses from 2005 to 2011.According to the study's findings, the predictability of accounting information in BHB's listed companies decreases following the adoption of IFRS, while the value relevance of financial reporting improved for BHB. Bryce, Ali, and Mather (2015) investigated whether the adoption of International Financial Reporting Standards (IFRS) has resulted in an improvement in accounting quality and whether audit committees are more successful at promoting accounting quality under IFRS than under previous Australian GAAP.Developed hypotheses were tested using univariate and multiple regression models on 200 ASX-listed businesses from 2003 to 2008.The findings suggested that Australia's adoption of IFRS has not significantly improved accounting quality. In addition, the study found that Australian GAAP (AGAAP) audit committees are more successful at maintaining accounting quality under IFRS than under AGAAP. Apergis (2015) gave proof on the effect of the reception of the IFRS bookkeeping system on monetary revealing nature of MENA recorded firms. The multifactor model's panel method was used to examine the quality of financial reporting for the years 2002 to 2012.The empirical findings demonstrated that the adoption of the new IFRS regime improved the quality of financial reporting. The findings demonstrated that the higher level of financial reporting quality attained by listed companies in accordance with IFRS can vary across the MENA region, probably as a result of distinct institutional, economic, and regulatory environments. According to Pricope (2016), institutional factors and the adoption of IFRS in developing nations like Romania are linked. The study in 2013 used a logit model to analyze a sample of 97 developing countries and found that mimetic pressures have a significant impact on the adoption of IFRS. Using the Ohlson (1995) valuation model, Temiz and Güleç (2017) investigated the impact of earnings and equity book value on share prices in Turkey. In contrast to the pre-IFRS period from 2001 to 2004, the post-IFRS period from 2005 to 2008 demonstrated a change in value relevance over the same number of years. The only non-financial businesses in the study's sample were those that use the BIST index. For the periods, cross-sectional and pooled regression was used to test the value relevance. Additionally, survival analysis, or panel data analysis, was used to confirm the rise in value relevance over time. The effect of company size and earnings announcement on value relevance for robustness was also tested in the study. Value relevance has increased in terms of explanatory power when two periods are compared, according to panel data analysis. According to Fuada, Januartib, and Ali (2017), the value relevance of accounting information in Indonesia is affected by both conditional and unconditional conservatism as well as the adoption of IFRS. The study found that the value relevance tends to increase after IFRS implementation using pooled cross sectional analysis for 429 publicly listed industrial firms between 2003 and 2014.IFRS increased the value relevance of earnings while decreasing the value relevance of book value for firms with a medium level of conservatism when the sample was grouped according to various accounting conservatism levels. However, the value relevance of earnings (book value) and conservatism were found to have a negative (positive) relationship when measured as continuous variables. An inverse U-shaped relationship between conditional conservatism and earnings value relevance and a U-shaped relationship between conditional conservatism and book value relevance were suggested by the analysis. Alade, Olweny, and Oluoch (2017) investigated the potential impact of IFRS adoption on the value relevance of non-financial Nigerian listed companies' earnings and book value. The study used panel data from 46 listed non-financial businesses whose fiscal year ended on December 31 between 2008 and 2015.For the purpose of calculating relative and incremental value relevance metrics, panel least square regression was used. According to the relative metric results, earnings per share and book value are both more value relevant positively and significantly under the IFRS regime than they were under the former Nigerian SAS. Almaharmeh and Deh (2018) looked at how the London Stock Exchange-listed companies' accounting earnings improved as a result of mandatory IFRS adoption. The findings from analyzing 9056 firm-year observations from 1994 to 2013 suggested that the mandatory adoption of IFRS results in improved earnings quality. The study tested the predictions regarding the impact of mandatory IFRS adoption on earnings quality with a fixed effect design. All of the companies that are listed on the London Stock Exchange and have access to data in the DataStream, World scope, and IBES international databases for the time period of 1994 to 31 December 2013 comprised the research sample. Using longitudinal data, Juniarti, Ferbiana, Novitasari, and Tjamdinata (2018) compared the value relevance of accounting information before and after IFRS adoption in Indonesia. The goal of the study was to address the need to improve adopters' compliance with the standard. Using a modified Ohlson Model (1995), this study compared the value relevance of accounting information four years prior to passage (2007-2010) and four years after adoption (2011-2014). This study demonstrates, employing longitudinal data from manufacturing companies listed on the Indonesia Stock Exchange (IDX), that accounting information has a greater value relevance after IFRS adoption than before. The Pooled Least Square and Random effect models were used in the robust result. The findings successfully demonstrate an increase in value relevance following IFRS adoption. Management innovation and technological innovation were examined by Zhang, Khan, Lee, and Salik (2019), with sustainability serving as a mediator. On the empirical data gathered from 304 Pakistani CEOs and top managers, structural equation modeling was used in the analysis of moment structures (AMOS) to test the model. According to the findings, technological innovation and management innovation have a significant positive impact on the sustainability of an organization and its performance. The purpose of Gu, Prah, and Tenkorang's (2019) study was to determine the impact of IFRS adoption on FDI inflows. The purpose of the study was to determine whether or not the introduction of IFRS actually increased the flow of foreign direct investment into developing nations. The sample consisted of 45 African countries from 2000 to 2017 (30 IFRS adopted and 15 IFRS non-adopted). The Fixed Effect regression model was used. The study's findings demonstrated that the introduction of IFRS resulted in an increase in FDI inflows. Using the difference-in-difference analysis to control the time period, additional research revealed that FDI inflows increased following IFRS adoption. In Sri Lanka, a developing nation, Kaushalya and Kehelwalatenna (2020) investigated how the adoption of IFRS affected the value relevance of accounting information. Panel data regression models were estimated using publicly available data from annual financial statements and Colombo Stock Exchange (CSE) reports for all CSE-listed companies from 2008 to 2018.Upon adopting IFRS, the study found that Sri Lankan firms' price value relevance increased and return value relevance decreased.

3.0 METHODOLOGY

3.1 Research Design

Ex-Post Facto research design is the method used in this study. The ex-post facto research design was used to find a meaningful connection between productivity and environmental cost disclosure. This study primarily utilized secondary data. The annual reports and accounts of the sample companies, particularly the comprehensive income statement and statement of financial positions of these companies as well as their respective notes to the accounts, as well as fact books, served as sources for the data.

3.2 Population and Sample Size

The population of this study consists of all the fifty-nine (59) quoted manufacturing firms in Nigeria as at 31st December, 2020. Purposive sampling technique was adopted to select the sample of twenty (20) manufacturing firms with up to date and complete annual reports and accounts for the studied period (2012-2020)

Model Specification

This study adapted the model of Zhang, Khan, Lee and Salik (2019):

$ROA = \beta_0 + \beta_1 MGTI_{it} + \beta_2 TECHI_{it} + \varepsilon$

ROA = Return on Assets

MGTi = Management Innovation

TECHI = Technological Innovation

The following research models were formulated in line with the research hypothesis:

$FMV_{it} = \beta_0 + \beta_1 RAD_{it} + \mu_{it}$

Where:

βo is the intercept of the regression.

β_1, is the coefficients of the regression

FMV_{it} = Firm Value of firm ί in period t

RAD_{it} = Research and Development Innovation of firm ί in period t

μ_{it} = error term

ί= firm identifier (20 firms)

t= time variable (9 Years)

3.3 Method of Data Analysis

Descriptive statistics was utilized to describe the mean, median, standard deviation, kurtosis, skewness, maximum and minimum values of the study variables via E-views 9.0 statistical software. Inferential statistics of this study was regression analysis: was used to predict the value of a variable based on the value of the other variables.

3.4 Decision Rule

Accept the null hypothesis, if the P-value of the test is greater than 0.05. Otherwise reject and accept H_1.

4.0 ANALYSIS AND RESULT

Table 1: Descriptive analysis

	FMV	RAD
Mean	1.382222	0.777778
Median	1.160000	1.000000
Maximum	2.840000	1.000000
Minimum	0.860000	0.000000
Std. Dev.	0.640425	0.440959
Skewness	1.523614	-1.336306
Kurtosis	4.034270	2.785714
Jarque-Bera	3.883243	2.695791
Probability	0.143471	0.259786
Sum	12.44000	7.000000
Sum Sq. Dev.	3.281156	1.555556
Observations	9	9

The table in.1 shows the descriptive statistics of Post IFRS Innovation, research and development (RADI) as well as that of Firm Value (FMV). The result shows that observation of the study is 180 which is a reflection of 20 firms x 9 years. The mean of FMV is 1.382 with the maximum value of FMV is 2.840 with a minimum FMV of 0. 860.Post IFRS Innovation show that Research and Development index has a mean of 0.778 which implies that averagely, 78% of Research and Development innovation information are contained in the sample firms annual report with a standard deviation of 0.441.

4.1 Test of Hypothesis

Ho$_1$: There is no significant relationship between research & development and firm value of quoted manufacturing firms in Nigeria.

Table 2 Regression analysis between Post IFRS Innovation and Firm Value

Dependent Variable: FMV
Method: Least Squares
Date: 11/06/22 Time: 13:15
Sample: 2012 2020
Included observations: 9

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.010000	0.457078	2.209688	0.0628
RAD	0.478571	0.518278	0.923388	0.3865

R-squared	0.108581	Mean dependent var	1.382222
Adjusted R-squared	-0.018765	S.D. dependent var	0.640425
S.E. of regression	0.646406	Akaike info criterion	2.158352
Sum squared resid	2.924886	Schwarz criterion	2.202180
Log likelihood	-7.712586	Hannan-Quinn criter.	2.063772
F-statistic	0.852645	Durbin-Watson stat	1.215097
Prob(F-statistic)	0.386527		

Source: E-Views 9.0, Regression Output 2022

4.2 Interpretation of Regression Results

In Table 2, R-squared and adjusted Squared values were (0.109) and (0.019) respectively. The indicates that all the independent variables jointly explain about 11% of the systematic variations in firm value (FMV) of our samples companies over the nine years periods (2012-2020). The Durbin-Watson statistic of 1.215097 indicates the absence of auto – correlation since it is not more than the rule of Thumb of 2. The tool of F-statistic helps in determining the overall joint significant of the explanatory (independent) variables on the dependent or explained variable at 5% level of significance, the probability of F-statistic = 0.852645 is higher than the critical p-value at 0.05.

4.3 Decision

The alternate hypothesis is rejected since Prob(F-statistic) at 0.387is higher than the critical value of 5% (0.05). This implies that research and development innovation has a positive and insignificant effect on firm value of quoted manufacturing firms in Nigeria.

5.0 Conclusion and Recommendation

The purpose of this study was to investigate the connection between the firm value of quoted manufacturing companies in Nigeria from 2012 to 2020 and the post-IFRS innovation. The sampled manufacturing companies' annual reports and accounts served as the source of the data. E-views 9.0 statistical software was used to perform descriptive statistics and regression analysis. Research and development innovations have a positive and insignificant impact on the firm value of Nigerian quoted manufacturing companies, according to data analysis. The study also comes to the conclusion that the aspects of the Post IFRS innovation that it took into account are not significant variables in describing the firm value of Nigerian quoted manufacturing companies.
On the basis of the findings, it was suggested that innovations in research and development should be maintained, resulting in the creation of new products and services by businesses to enable them to survive and thrive in competitive markets.

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