

TECHNOLOGY INNOVATION AND FINANCIAL REPORTING QUALITY OF INDUSTRIAL GOODS FIRMS LISTED ON THE NIGERIA EXCHANGE GROUP

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ABSTRACT

The study investigated the effect of Technology Innovation on Financial Reporting Quality of Industrial Goods Firms Listed on the Nigeria Exchange Group. Specifically, the study investigates whether Enterprise Resource Planning (ERP) adoption, Cloud Computing Adoption (CCA), and Big Data Analytics Capability (BDAC), significantly influence Financial Reporting Quality (FRQ) of listed Industrial Goods firms in Nigeria. Eleven (11) Listed Industrial Goods, constituted the sample size of the study covering 7-year period, from 2019-2025. Ex-post facto research design was employed, and secondary data were obtained from the annual reports and accounts of the sampled firms, and were analysed using E-Views 12 statistical software. The study employed descriptive statistics and Panel Least Squares Regression was used for the analysis. The findings showed, among other things that, there is a positive and significant relationship between Enterprise Resource Planning (ERP) and Financial Reporting Quality (FRQ) with a P-value (significance) of 0.0373. It was recommended, among others, that listed Industrial Goods firms should invest in comprehensive ERP systems to improve the quality, accuracy, timeliness, and reliability of financial reporting, since its adoption significantly enhances financial reporting quality.

Key words: Blockchain Technology; Digital Economy; Technology Innovation; Enterprise Resource Planning

INTRODUCTION

The quality of financial reports determines the usefulness of the report. Financial reporting encompasses the systematic recording, analyzing, summarizing, and communicating of business financial transactions to various users to enhance knowledgeable judgments and informed decision making. Quality financial reporting (QFR) refers to the accuracy, relevance, reliability, timeliness, and understandability of financial information (Owoeye, 2025). It is a means of communicating financial reporting and serves as a channel of communicating the assets and liabilities of the entity to shareholders, potential investors and other interested stakeholders. The primary goal of financial data is to tell investors about where the company has been, where it is now, and where it is headed to (Awodiran, & Ogundele, 2022). Since the major objective of the financial reporting is to make available all the necessary information that will make various stakeholders make informed economic

decision (Olamide 2024), as such, the report is expected to be timely, transparent, reliable, and devoid of misrepresentation (Akinlade et. al. 2026 in, Agboola, 2021; World Bank, 2022). The emergence of Technology innovation in about two decades now, has brought about great improvement in financial reporting quality by automating accounting processes, minimizing human errors, strengthening internal controls, enhancing data accuracy, facilitating real-time reporting, and improving compliance with accounting standards (Akinlade, et al., 2026).

Technological innovation refers to the introduction, adoption, and effective utilization of new or significantly improved technologies, systems, processes, and digital solutions that enhance organizational performance and create value for stakeholders. Empirical evidence from developed economies generally suggests that the adoption of digital technologies contributes positively to financial reporting quality. Studies have reported that firms implementing ERP systems often experience improvements in reporting timeliness, accounting accuracy, internal control effectiveness, and financial transparency (Olubunmi, (2026). Likewise, cloud-based accounting systems have been associated with enhanced accessibility of financial information, reduced operational costs, and greater reporting efficiency (Patel et al., 2023). Big data analytics has also emerged as an important tool for improving risk assessment, fraud detection, financial forecasting, and decision support. Collectively, these technological innovations contribute to producing financial reports that better satisfy the information needs of stakeholders. Notwithstanding this great feat, the extent to which technological innovation contributes to financial reporting quality among listed Industrial Goods firms in developing economies like Nigeria, remains insufficiently understood. The business environment has experienced remarkable transformation due to rapid technological innovation, which has significantly influenced organizational processes, operational efficiency, and financial reporting practices. Technological innovation refers to the development, adoption, and application of new technologies that improve business operations, decision-making, and information management. In today's digital economy, firms increasingly rely on technologies such as Enterprise Resource Planning (ERP) systems, cloud computing, artificial intelligence, big data analytics, blockchain technology, and digital accounting systems to enhance operational performance and financial reporting.

In Nigeria, the manufacturing sector, particularly the Industrial goods sector, plays a strategic role in promoting industrialization, employment generation, economic diversification, and sustainable economic growth. They play foundational roles in economic growth because they produce the materials and products that enable construction, manufacturing, infrastructure



development, and industrialization. Rather than serving consumers directly, many industrial goods companies supply businesses and governments, making the sector a key driver of broader economic activity. International Financial Reporting Standards (IFRS), the Companies and Allied Matters Act (CAMA), and the regulations of the Nigerian Exchange Group (NGX) are the regulatory bodies to serve as a guide in the preparation of their financial reports. They are expected to comply with them in preparing their financial statements. Yet, in spite of these regulatory requirements, concerns continue to exist regarding the quality, timeliness, transparency, and credibility of financial reports issued by some listed Industrial Goods firms.

Financial reporting quality remains one of the fundamental indicators of corporate transparency, accountability, and effective corporate governance. High-quality financial reporting provides relevant, reliable, timely, comparable, and faithfully represented financial information that enables investors, creditors, regulators, and other stakeholders to make informed economic decisions. Conversely, poor-quality financial reports increase information asymmetry, reduce investor confidence, and may lead to corporate failures and inefficient capital allocation. Investors seeking to maximize returns and minimize risk rely on accurate and reliable financial information to evaluate investment opportunities (Owoeye, 2025).

Statement of the Problem

Financial reporting quality has remained a major concern among regulators, investors, creditors, and other stakeholders because financial reports constitute the primary source of information for evaluating the financial performance and position of firms. Although Nigeria has adopted International Financial Reporting Standards (IFRS) to improve reporting quality and transparency, several Industrial Goods firms continue to experience issues relating to earnings management, delayed financial reporting, inadequate disclosures, and inconsistent financial information. These challenges reduce investor confidence and may negatively affect firms' access to capital and overall market performance.

The advancement of technological innovation offers opportunities to improve accounting systems and financial reporting through automation, integration of business processes, enhanced internal controls, real-time data processing, and improved information accuracy. Technologies such as Enterprise Resource Planning systems, cloud computing, and big data analytics have transformed financial reporting practices globally. However, the level of adoption and utilization of these technologies among listed Industrial goods firms in Nigeria

varies considerably due to differences in financial capacity, technological infrastructure, managerial expertise, and organizational readiness.

Previous empirical studies have largely focused on corporate governance, audit quality, firm characteristics, firm performance (Augustine et. al. 2026) and IFRS adoption as determinants of financial reporting quality, with relatively limited attention given to technological innovation, particularly within Nigeria's Industrial goods firm sector (Akinlade, et al. (2026). Furthermore, existing studies present mixed findings regarding the relationship between technology innovation and financial reporting quality, thereby creating an empirical gap. Consequently, there is a need to investigate whether technological innovation significantly influences the financial reporting quality of listed industrial Goods firms in Nigeria. It is against this backdrop that this study seeks to examine the effect of technology innovation on the financial reporting quality of listed Industrial goods firms in Nigeria.

Objectives

The major objective of the study is to examine the effect of Technology Innovation on Financial Reporting Quality of Listed Industrial Goods Firms in Nigeria. Specifically, the objectives are to:

1. examine the effect of Enterprise Resource Planning (ERP) adoption on Financial Reporting Quality of industrial goods firms listed on Nigerian Exchange Group.
2. determine the effect of Cloud Computing Adoption (CCA) on Financial Reporting Quality of industrial goods firms listed on Nigerian Exchange Group.
3. investigate the Big Data Analytics (BDAC) on Financial Reporting Quality of industrial goods firms listed on Nigerian Exchange Group

Hypotheses

- H₀₁: Enterprise Resource Planning (ERP) adoption has no significant effect on Financial Reporting Quality of industrial goods firms listed on Nigerian Exchange Group.
- H₀₂: Cloud Computing Adoption (CCA) has no significant effect on Financial Reporting Quality of industrial goods firms listed on Nigerian Exchange Group.
- H₀₃: Big Data Analytics Capability (BDAC) has no significant effect on Financial Reporting Quality of industrial goods firms listed on Nigerian Exchange Group.

LITERATURE REVIEW

Technology Innovation

Technology innovation is the development, adoption, and application of new or significantly improved digital technologies, systems, or processes that enhance organizational efficiency, effectiveness, and performance. Joseph Schumpeter viewed innovation as the introduction of new products, production methods, markets, or organizational forms that drive economic development. Organization for Economic Co-operation and Development (through the *Oslo Manual*) defines innovation as the implementation of a new or significantly improved product or process, including significant improvements in methods that create value. In accounting, technology innovation involves the use of advanced digital tools to improve the accuracy, timeliness, transparency, and reliability of financial reporting (JieWei, Olayemi & Adekunle, 2023).

Technology innovation refers to the introduction or implementation of new or substantially improved technological products, processes, systems, or digital solutions that improve organizational performance, efficiency, or competitiveness (Odubuasi A.C., Ogboi E. and Obasi J.O. (2026). Technology innovation and financial reporting are closely connected because new technologies change how financial information is collected, processed, analyzed, and communicated.

Enterprise Resource Planning (ERP)

Enterprise resource planning (ERP) is a platform or integrated software system used by organizations to manage, integrate and automate core business processes. ERP systems connect different departments through a unified platform, allowing data to be shared across the organization. This entails that instead of each department operating in its own silo, ERP provides a single interface that improves visibility and coordination across functions such as finance, operations, and human resources, manufacturing, and supply chain management. This integration helps reduce duplication, streamline processes, and support more efficient decision-making (David, K. 2026).

Many ERP software applications are critical to companies because they help them implement resource planning by integrating all the processes needed to run their companies with a single system. An ERP software system can also integrate planning, purchasing inventory, sales, marketing, finance, human resources, and more.

Cloud Computing

Cloud computing involves storing and accessing financial data online instead of on physical servers or manually (Patel et al., 2023). This technology allows companies to store, process, and access their financial information through internet-based services rather than maintaining expensive on-premise servers. The cost structure of cloud computing typically involves subscription fees or pay-as-you-go models offered by IT service providers (Ramesh et al., 2021). Nigerian businesses, this transition means they can access enterprise-level computing resources without the substantial capital investment required for traditional IT infrastructure (Oyoyo & Baguma, 2019). These platforms offer real-time financial data access from any location with internet connectivity, significantly improving operational flexibility (Efuntade & Olubunmi, 2023). The importance of cloud computing extends beyond mere convenience; it fundamentally

transforms financial reporting by enabling instantaneous updates, multi-user collaboration, greater accuracy in their financial reporting through automated processes that minimize human errors associated with manual data entry automated backups (Ayinla et al., 2024; Ashraf, 2024). Cloud computing is poised to play an increasingly central role in Nigeria's financial reporting ecosystem. Financial Reporting Council of Nigeria as regulators are actively encouraging digital transformation, recognizing that cloud-based systems can enhance transparency and compliance monitoring (Abrahams et al., 2024). This capability is vital for Nigerian firms that need to abide by increasingly stringent reporting standards while operating with limited accounting staff. The collaborative nature of cloud computing also breaks down geographical barriers, allowing accountants in different locations to work simultaneously on the same financial records. The technology's scalability means businesses can start small with basic accounting functions and gradually expand their usage as needs grow and confidence builds (Otokiti et al., 2023).

Big Data Analytics

The concept of big data analytics refers to the use of advanced computational and statistical tools to analyze large and complex datasets that are beyond the capabilities of traditional data-processing software (Okoye & Eze, 2022). Big Data Analytics refers to the process of collecting, processing, and analyzing vast sets of data to uncover patterns, correlations, and insights that can aid decision-making in various fields. The term "Big Data" entails data sets that are too large, complex, or fast-changing to be managed and analyzed using traditional data-processing tools. The analysis of such data involves advanced analytic techniques that



go beyond basic computations and statistics to leverage sophisticated methods such as machine learning, predictive modeling, and artificial intelligence (Ogbudu & Okolie, 2025). Recent empirical studies in Nigeria demonstrate that Big Data Analytics (BDA) significantly improve Financial Reporting Quality (FRQ). By enhancing data processing speed and transparency, BDA helps to lower information asymmetry, mitigate financial fraud, and improve decision-making accuracy among both public and private sector organizations.

Big data analytics (BDA) presents a promising solution to address these challenges by enabling Industrial Goods firms to process and analyze vast amounts of financial data in real time, thereby improving the accuracy and reliability of financial reporting. BDA technologies can enhance data quality management, detect fraudulent activities, and ensure compliance with regulatory standards, leading to higher-quality financial reports (Abdullahi & Musa, 2023). However, the adoption of big data analytics among Nigerian Industrial Goods firms has been inconsistent, with some Industrial Goods firms demonstrating significant progress while others lag due to several constraints, including high costs, lack of technical expertise, and data privacy concerns (Akinyemi, 2021).

Financial Reporting Quality

Financial reporting quality (FRQ) has become a central concern in accounting research because it determines the usefulness of financial statements for economic decision-making. Financial reporting is a vital mechanism for conveying the economic realities of firms to external stakeholders, and the credibility of such reports underpins investor confidence, regulatory oversight, and corporate governance. (Agrawal & Chadha, 2005).

According to the conceptual framework for financial reporting, high-quality financial reports should provide information that is relevant, faithfully represented, comparable, verifiable, timely, and understandable. These qualitative characteristics enhance the confidence of investors, creditors, regulators, and other stakeholders in corporate financial disclosures. Consequently, organizations are increasingly expected to produce financial statements that accurately reflect their financial position and performance while complying with applicable accounting standards and regulatory requirements (Shamaki, 2023). The final goal of every accounting system is to provide financial information to both internal and external stakeholders. However, such information would be useless or misleading if they lack the desired quality. The quality of financial reporting information, therefore, anchors on the extent to which the information in the financial statements and explanatory notes is fairly presented.

Adoption of Technology in Financial Reporting

The use of technology in financial reporting refers to how much companies use digital technologies to conduct reporting activities. In Nigeria, more and more listed companies are using ERP systems to manage their data, AI to find problems, and blockchain to check transactions. The process of adopting new technology, on the other hand, is affected by things like the availability of infrastructure, the skills of the workforce, the costs involved, and the rules that govern the process. Earnings management has long been a concern in Nigerian corporate reporting. Managers sometimes manipulate figures to meet performance targets or influence investor perceptions (Osazevaru & Oyibo, 2020). Technology innovation constitutes one such strategic resource because it enables firms to improve operational efficiency, strengthen internal controls, enhance information quality, and respond more effectively to changing business environments. Listed Industrial Goods firms that invest in advanced accounting technologies are therefore more likely to produce high-quality financial reports than firms relying on outdated manual systems (Oguejiofor et al., 2023).

Digitalization has the potential to curtail such practices by limiting manual adjustments and creating transparent audit trails (Adegbie et al., 2022). Global evidence suggests that technology-based accounting systems significantly reduce discretionary accruals and other earnings management practices (Kraus et al., 2021). Yet, Nigerian Industrial Goods firms remain susceptible to creative accounting due to uneven adoption of these technologies and weak enforcement of digital compliance standards (Emenike & Nwanneka, 2024).

Theoretical Framework

Agency Theory

Agency theory gained prominence with Jensen and Meckling's seminal article in 1976. It centers around the agency problem and its resolution. An agency relationship occurs when one or more principals engage an agent to perform services on their behalf, delegating decision-making authority to the agent (Hill & Jones, 1992). This theory addresses the conflicts of interest between principals and agents, where the agency problem arises from differing goals and work distribution among the involved parties. In essence, when one actor in a corporation is appointed as an agent to act on behalf of another party, conflicts may arise due to the agent's decision-making authority.

Agency Theory also provides a useful lens for understanding the importance of technology innovation in financial reporting. The separation of ownership and management creates

information asymmetry between managers (agents) and shareholders (principals). Managers may possess incentives to manipulate accounting information for personal benefit, thereby reducing financial reporting quality. The adoption of advanced accounting technologies can mitigate agency problems by strengthening internal controls, enhancing transparency, reducing opportunities for earnings manipulation, and improving the reliability and timeliness of financial information disclosed to stakeholders.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) has been widely applied in accounting and financial reporting studies to explain how users accept and use new technologies (Davis, 1989). TAM argues that perceived usefulness and perceived ease of use determine the adoption of new systems. In Nigerian Industrial Goods firms, the adoption of digital reporting platforms is influenced by whether financial managers perceive them as effective for improving efficiency and reducing reporting errors (Onyekwelu & Umeoduagu, 2020). The relationship between technology innovation and financial reporting quality can be understood through several theoretical perspectives. With the emergence of AI-powered analytics, blockchain-based ledgers, and robotic process automation, recent studies have confirmed that ease of integration and user- friendliness remain critical determinants of adoption (Okafor et al., 2022). More specifically, companies that perceive digital reporting systems as reliable and less complex are more likely to adopt them fully, leading to improvements in financial reporting quality (Ogunjobi & Lawal, 2023). The TAM framework is therefore essential for understanding why some quoted firms embrace digital reporting technologies more effectively than others, and why adoption rates may vary across Nigeria's Industrial Goods firms. The study, therefore, is anchored on Technology Acceptance Model.

The Enterprise Resource Planning (ERP) has dawned as a tool to facilitate the flow of information and allow information sharing among different business partners. It appears as a response to the inappropriateness of the traditional systems which become outdated as a result of the change in business needs and the development of software programs. The use of ERP software has become more common in a lot of businesses nowadays. It appears as a complex and comprehensive software through which organizations can control and integrate all the business functions and processes in an extensive and innovative technique. This paper is dedicated to discuss enterprise resource planning, its emergence, implementation, importance of using it within organizations and the different

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Empirical Review

Ogbudu & Okolie (2025) investigated big data analytics and financial reporting quality of listed commercial banks in Nigeria. The population of the study comprises sixty-three thousand one hundred and seventy-two (63,172) Staff of the thirteen (13) listed commercial banks in Nigeria and the sample size of three hundred and ninety-seven (397) was derive using Taro Yamane. The data was sourced using a structured questionnaire that was designed along the four Likert scale. This data was analyzed using frequency, mean, standard deviation and multiple regression. The findings revealed among other things that data volume has a significant effect on the accuracy of financial reporting of listed commercial banks in Nigeria and data variety is not positively associated with the relevance of financial information. Based on the findings, it was recommended among other things that banks should implement standardized frameworks for managing data volume and variety to enhance financial accuracy and relevance and financial institutions must invest in advanced data integration tools to overcome challenges associated with data variety and velocity.

Akinlade, et al. (2026) examined the effect of digitalization on the financial reporting quality of 38 quoted manufacturing companies listed on the Nigerian Exchange Group between 2019 and 2024. Using 228 firm-year observations, results show that higher digital adoption



significantly reduces reporting lag by an average of 18 days, decreases restatements by 0.12 per year, and increases IFRS compliance scores by 6.21 points and transparency scores by 1.34 units. Regression analysis confirms that digital tools such as ERP, AI, blockchain, and cloud-based platforms enhance timeliness, reliability, and disclosure completeness at a 5% significance level. Primary qualitative evidence indicates that automated internal controls, real-time error detection, and structured governance notes further strengthen reporting quality. Challenges including infrastructural limitations, cybersecurity concerns, and uneven adoption moderately affect outcomes. Overall, digitalization is a critical driver of accurate, timely, and transparent financial reporting, contributing to investor confidence and corporate accountability in emerging economies. The findings underscore the strategic role of digital technology in improving corporate governance and operational efficiency in Nigerian manufacturing firms. The study recommends that firms should accelerate adoption of digital tools such as ERP, AI, and cloud reporting to improve timeliness and accuracy of financial reports.

Isam, Yahya, Maha, Malik and Abu (2023) evaluated the impact of Big Data Analytics (BDA) on financial reporting quality, as well as to assess the accounting challenges associated with Big Data. It provides qualitative evidence from Canada. This study used a qualitative approach to ascertain the thoughts and perceptions of auditors, financial analysts and accountants at Canadian audit and accounting firms in BDA and its impact on financial reporting quality, using semi-structured interviews. To obtain their consent to participate in the interview, 127 auditors, financial analysts and accountants from Canadian audit and accounting firms were initially approached. The final number of respondents was 41, representing a response rate of 32%. The authors' findings underscored the relevance of Big Data and BDA in affecting financial report quality and revealed that BDA had a significant effect on improving financial reporting quality. Big Data improves accounting reporting and expert judgment. It was recommended that Big Data should be implemented, effectively, for businesses to achieve a variety of benefits, including customized goods, simplified processes, improved risk assessment process and, finally, increased risk management.

METHODOLOGY

The study, on Technology Innovation and Financial Reporting Quality of Industrial Goods Firms Listed on the Nigeria Exchange Group, employed an ex-post facto research design. Secondary data were obtained from the audited annual reports of the eleven (11) Industrial Goods firms listed on the Nigerian Exchange Group from 2019-2025. They served both as

population as well as the sample of the study. The reason is to have a better result since the number is not much. The companies are; Austin Laz and Company Plc, Berger Paints Plc, Beta Glass Plc, BUA Cement Plc, CAP Plc, Cutix Plc, Dangote Cement Plc, Lafarge Africa Plc, Meyer Plc, Premier Paints Plc, Tripple Gee and Company Plc. Descriptive statistics was used describe the mean, median, standard deviation of the raw data. Panel Least Squares Regression was used for the analysis.

Model Specification

The study specifies financial reporting quality as a function of digital technology innovation variables, namely enterprise resource planning, cloud computing adoption, and big data analytics capabilities, while controlling for firm size and leverage. The functional relationship is expressed as:

$$FRQ = f(ERP, CCA, BDAC, FS, LEV)$$

The econometric model is specified as:

$$FRQ_{it} = \beta_0 + \beta_1 ERP_{it} + \beta_2 CCA_{it} + \beta_3 BDAC_{it} + \beta_4 FS_{it} + \beta_5 LEV_{it} + \epsilon_{it}$$

Where:

FRQ_{it} = Financial Reporting Quality of firm i at time t (dependent variable)

β_0 = Intercept (constant term)

ERP_{it} = Enterprise Resource Planning adoption of firm i at time t

CCA_{it} = Cloud Computing Adoption of firm i at time t

$BDAC_{it}$ = Big Data Analytics Capabilities of firm i at time t

FS_{it} = Firm Size (control variable)

LEV_{it} = Leverage (control variable)

ϵ_{it} = Error term

where i denotes the individual firm and t denotes the time period.

$$FRQ_{it} = \beta_0 + \beta_1 ERP_{it} + \epsilon_{it} \text{ -----Eqn. 1}$$

$$FRQ_{it} = \beta_0 + \beta_2 CCA_{it} + \epsilon_{it} \text{ -----Eqn. 2}$$

$$FRQ_{it} = \beta_0 + \beta_3 BDAC_{it} + \epsilon_{it} \text{ -----Eqn. 3}$$

$$FRQ_{it} = \beta_0 + \beta_4 FS_{it} + \epsilon_{it} \text{ -----Eqn. 4}$$

$$FRQ_{it} = \beta_0 + \beta_5 LEV_{it} + \epsilon_{it} \text{ -----Eqn. 5}$$

A priori expectations;

The expected signs are:

Variable	Symbol	Expected Sign
Enterprise Resource Planning	ERP	+
Cloud Computing Adoption	CCA	+
Big Data Analytics Capabilities	BDAC	+
Firm Size	FS	+
Leverage	LEV	+

Therefore, the a priori model is written as:

$$\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0, \beta_5 > 0$$

RESULTS AND DISCUSSIONS

Descriptive Summary

Table 1: Descriptive Statistics

	FRQ	ERP	CCA	BDAC	FSIZE	LEV
Mean	7.072468	0.636364	0.714286	0.727273	7.687403	1.122805
Median	6.680000	1.000000	1.000000	1.000000	7.920000	0.529000
Maximum	9.150000	1.000000	1.000000	1.000000	8.740000	48.40600
Minimum	5.560000	0.000000	0.000000	0.000000	5.420000	0.025000
Std. Dev.	0.973950	0.484200	0.454716	0.448282	0.829679	0.465305
Skewness	0.802877	-0.566947	0.948683	1.020621	1.197433	8.574133
Kurtosis	2.401121	1.321429	1.900000	2.041667	3.969898	4.168529
Jarque-Bera	9.423209	13.16481	15.43208	16.31460	21.41911	17430.38
Probability	0.458990	0.901385	0.800446	0.213287	0.224678	0.986230
Sum	544.5800	49.00000	55.00000	56.00000	591.9300	86.45600
Sum Sq. Dev.	72.09203	17.81818	15.71429	15.27273	52.31588	2270.087
Observations	77	77	77	77	77	77

Source: E-View 12 Computational Results (2026)

From Table 1 above, it was found that financial reporting quality of listed Industrial Goods firms in Nigeria is positively associated with the technology innovation within the period of 2019-2025 with a mean value of 7.07. Thus, implies that financial reporting quality of listed industrial goods firms in Nigeria is determined by the level of technology innovations engaged and employed by the firms.

The mean value of Enterprise Resource Planning (ERP) for the sampled firms was 0.64 with a standard deviation value of 0.48. This means that enterprise resource planning determines financial reporting quality of industrial goods firms in Nigeria. The maximum value of ERP was 1.00 and the minimum value of ERP was 0.00 implies that the sampled firms' financial

reporting quality is enabled by enterprise resource planning. The distribution for the study is platykurtic since the kurtosis (1.32) is less than 3, implying that the outliers are few. Also, the Jarque-Bera probability of 0.901 is greater than 0.05, which means that the distribution of enterprise resource planning is not different from a normal distribution.

The average value of Cloud Computing Adoption (CCA) for the sampled firms was 0.71 with a standard deviation value of 0.45. This means that cloud computing is a determinant of financial reporting quality of listed industrial goods firms in Nigeria. Hence, cloud computing enables firm financial reporting quality. The maximum value of CCA was 1.00 and the minimum value of CCA was 0.00 implies that the sampled firms financial reporting quality is affected by the adoption of cloud computing. The distribution for the study is platykurtic since the kurtosis (1.90) is less than 3, implying that the outliers are few. Also, the Jarque-Bera probability of 0.80 is greater than 0.05, which means that the distribution of cloud computing adoption does not deviate from a normal distribution.

Also, the mean value of Big Data Analytics Capability (BDAC) for the sampled firms was 0.73 with a standard deviation value of 0.44. This means that big data analytics capability determines financial reporting quality of industrial goods firms in Nigeria. The maximum value of BDAC was 1.00 and the minimum value of BDAC was 0.00 implies that the sampled firms' financial reporting quality is enabled by big data analytics capability. The distribution for the study is platykurtic since the kurtosis (2.04) is less than 3, implying that the outliers are few. Also, the Jarque-Bera probability of 0.21 is greater than 0.05, which means that the distribution of big data analytics capability is not different from a normal distribution.

Finally, the average value of firm size (FSIZE) and firm leverage (LEV) for the sampled firms was 7.69 and 1.23 respectively with a standard deviation value of 0.83 and 0.47. This means that the firm size and leverage control the relationship between technology innovation and financial reporting quality of listed industrial goods firms in Nigeria. The distributions for the study are leptokurtic since the kurtosis (3.96 & 4.17) are greater than 3, implying that the outliers are many. However, the Jarque-Bera probability of 0.22 and 0.99 respectively are greater than 0.05, which means that the distribution of firm size and leverage do not deviate from a normal distribution.

Table 2: Panel Least Squares Regression Result on Effect of Technology Innovation on Financial Reporting Quality of Listed Industrial Goods Firms in Nigeria

Dependent Variable: FRQ

Method: Panel Least Squares

Date: 07/05/26 Time: 16:50

Sample: 2019 2025

Periods included: 7

Cross-sections included: 11

Total panel (balanced) observations: 77

Source: E-
Views 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERP	0.501830	0.236495	2.121948	0.0373
CCA	0.493006	0.149426	3.299323	0.0012
BDAC	2.268605	0.312301	7.264162	0.0000
FSIZE	0.551248	0.138276	3.986581	0.0001
LEV	0.323699	0.083659	3.869257	0.0002
C	7.745006	1.039264	7.452396	0.0000
R-squared	0.787033	Mean dependent var	7.072468	
Adjusted R-squared	0.734515	S.D. dependent var	0.973950	
S.E. of regression	0.956995	Akaike info criterion	6.824682	
Sum squared resid	65.02460	Schwarz criterion	7.007316	
Log likelihood	-102.7502	Hannan-Quinn criter.	6.897734	
F-statistic	11.54377	Durbin-Watson stat	1.561338	
Prob(F-statistic)	0.000000			

Computational Results (2026)

Discussion of Findings

In Table 2, R-squared and its adjusted R-squared values were (0.79) and (0.73) respectively. This is an indication that all the independent variables jointly explain about 79% of the systematic variations in financial reporting quality (FRQ) of our sampled firms over the seven-year period (2019-2025) while 21% of the systematic variations are captured by the error term. The F-statistics 11.54377 and its P-value of (0.000000) portrays the fact that the

Panel Least Squares Regression Model is well specified. With this, the researcher affirms the validity of the regression model adopted in this study.

Test of Autocorrelation: Using Durbin Watson (DW) statistics, 1.561338 was obtained from the regression result as shown on Table 2. This agrees with the Durbin Watson rule of thumb which indicates that the data is free from autocorrelation problem and as such fits for the regression result interpreted and relied on. Akika Info Criterion and Schwarz Criterion which are 6.824682 and 7.007316 respectively further strengthen the fitness of our regression result for reliability as it confirms the goodness of fit of the model specified. In addition to the above, the specific findings from each explanatory variable from panel least squares regression model as shown on Table 2 is provided below as follows:

H₀₁: Enterprise resource planning adoption has no significant effect on financial reporting quality of listed industrial goods firms in Nigeria.

This hypothesis was tested and the result of the regression model as explicated on Table 2 indicates that the relationship between Enterprise Resource Planning (ERP) and financial reporting quality (FRQ) is positive and significant with a P-value (significance) of 0.0373 for the model which is less than the 5% level of significance adopted. Likewise, the result of positive coefficient of 0.502 for the model indicates that, Enterprise Resource Planning determines financial reporting quality of listed industrial goods firms in Nigeria. We therefore rejected the null hypothesis and accepted the alternate hypothesis which contends that enterprise resource planning adoption has significant effect on financial reporting quality of listed industrial goods firms in Nigeria. Augustine, et al. (2016) and Akinlade, et. al. (2026) found a supporting result that ERP has a significant positive impact on data integration and accuracy.

H₀₂: Cloud computing adoption has no significant effect on financial reporting quality of listed industrial goods firms in Nigeria.

This hypothesis was tested and the result of the regression model as explicated on Table 2 indicates that the relationship between Cloud Computing Adoption (CCA) and financial reporting quality (FRQ) is positive and significant with a P-value (significance) of 0.0012 for the model which is less than the 5% level of significance adopted. Likewise, the result of positive coefficient of 0.493 for the model indicates that, adoption of cloud computing ensures firms' financial reporting quality by 0.493%. This implies that firms' financial reporting quality is determined by cloud computing. We therefore rejected the null hypothesis and

accepted the alternate hypothesis which contends that enterprise cloud computing adoption has significant effect on financial reporting quality of listed industrial goods firms in Nigeria. This aligns with the result of Olubunmi, (2025) and Augustine, et al. (2016), which revealed that cloud computing cost has a significant affirmative effect on Quality Financial Reporting of manufacturing firms. On the contrary, the result deviates from Abidde (2023), who reported mixed evidence of cloud adoption in manufacturing firms, where in some cases adoption did not translate into improved reporting. These mixed outcomes, as can be seen, highlight contextual differences across industries and firm types.

H₀₃: Big data analytics capability has no significant effect on financial reporting quality of listed industrial goods firms in Nigeria.

This hypothesis was tested and the result of the regression model as explicated on Table 2 indicates that the relationship between Big Data Analytics Capabilities (BDAC) and financial reporting quality (FRQ) is positive and significant with a P-value (significance) of 0.0000 for the model which is less than to 5% level of significance adopted. Likewise, the result of positive coefficient of 2.27 for the model indicates that big data analytics capability is a determinant of firm financial reporting quality among the listed industrial goods firms in Nigeria. Therefore, big data analytics capability enables firms financial reporting quality in Nigeria. We therefore rejected the null hypothesis and accepted the alternate hypothesis which contends that big data analytics capability has significant effect on financial reporting quality of listed industrial goods firms in Nigeria. Eguono, (2026), had a similar finding, that big data analytics usage leads to positive impact on financial reporting, adding more value to its report, and also making the accountant a more effective steward.

Also, firm size and leverage when tested as a control variable have positive and significant effect on firm financial reporting quality. With a p-value of 0.0001 and 0.0002 respectively, the test was found statistically significant at 5% level of significance. Thus, firm size and leverage control the relationship between technology innovation and firm financial reporting quality in Nigeria.

CONCLUSIONS AND RECOMMENDATIONS

The study, on the effect of Technology Innovation on Financial Reporting Quality of listed Industrial Goods, having developed a model fit on technology innovation using (ERP, CCA & BDAC), highlighted that among the three categories of technology innovation covered in this study; Big Data Analytics Capability (BDAC) has the highest level of influence on firms

Financial Reporting Quality (FRQ) by the model used in the study, followed by Enterprise Resource Planning (ERP) and then, Cloud Computing Adoption (CCA). Thus, the study concludes that technology innovation enables financial reporting quality of listed Industrial Goods firms in Nigeria. Also, the Technology Acceptance Model (TAM) has explained this study in that digital technology is highly beneficial to firms as it helps them to get wonderful, positive results.

As organizations continue to embrace digital transformation, technology innovation has become indispensable for achieving high-quality financial reporting. Firms that strategically invest in modern accounting technologies are better positioned to produce financial reports that are timely, reliable, relevant, accurate, and transparent, thereby meeting the growing information needs of investors, regulators, creditors, and other stakeholders in today's increasingly competitive and technology-driven business environment.

In lieu of the findings of the study, the following recommendations were made:

1. Listed industrial goods firms should invest in comprehensive ERP systems to improve the quality, accuracy, timeliness, and reliability of financial reporting. Since ERP adoption significantly enhances financial reporting quality, firms should prioritize the implementation and continuous upgrading of integrated ERP solutions.
2. Organizations should provide continuous training for accounting, finance, and IT personnel on the effective use of cloud computing technologies. This will enable employees to utilize cloud-based systems efficiently and reduce operational errors that could affect financial reporting quality.
3. Regulatory and professional bodies (such as the Financial Reporting Council of Nigeria (FRCN), the Institute of Chartered Accountants of Nigeria (ICAN), and the Association of National Accountants of Nigeria (ANAN)) should promote the adoption of big data analytics in financial reporting by issuing implementation guidelines, encouraging digital transformation, and providing capacity-building programmes for finance professionals.

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