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DEPLOYMENT OF AUTOMATION TECHNOLOGIES IN FINANCIAL REPORTING PRACTICES AMONG MULTINATIONAL COMPANIES IN NIGERIA

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ABSTRACT

This study investigated the deployment of automation technologies in financial reporting practices among multinational companies operating in Nigeria, focusing on their effects on timeliness, accuracy, and compliance with international financial reporting standards (IFRS). The rapid integration of technologies such as Robotic Process Automation (RPA), Artificial Intelligence (AI), and cloud-based systems has revolutionized global financial reporting, yet their practical application in Nigeria remains underexplored. A quantitative research design was adopted using structured questionnaires administered to finance professionals in 5 multinational companies, from which 38 valid responses were obtained. Descriptive statistics and regression analysis (via E-view 9.0) were used to analyze the data. Findings indicate that automation technologies significantly enhance the timeliness and accuracy of financial reports and improve compliance with IFRS. However, challenges such as infrastructural limitations, skill gaps, resistance to change, and data security concerns persist. The study concludes that despite these challenges, automation offers considerable potential to strengthen financial reporting reliability and transparency in Nigerian multinational enterprises. The results provide valuable insights for multinational managers, regulators, technology providers, and researchers interested in financial technology adoption in emerging markets.

Key words: *Accuracy, Automation Technologies; Financial Reporting; Multinational Companies; Timeliness.*

INTRODUCTION

In the evolving global financial ecosystem, technological advancement is reshaping traditional practices, especially in the field of financial reporting worldwide. One of the most transformative shifts is the integration of digital technologies such as Enterprise Resource Planning (ERP) systems,Robotic Process Automation (RPA), Blockchain,Artificial Intelligence (AI), cloud computing, and intelligent data analytics. These technologies are increasingly employed to improve accuracy, efficiency, timeliness, and compliance in financial reporting (Moll & Yigitbasioglu, 2019). Multinational companies (MNCs), particularly in emerging markets like Nigeria, face unique financial reporting challenges, such as complex regulatory requirements, cross-border operations, and internal control risks. To

address these, many MNCs are turning to automation technologies to streamline financial processes, reduce errors, and enhance data transparency (Kokina & Davenport, 2017).

In Nigeria, where multinational firms play a critical role in sectors such as oil and gas, telecommunications, and manufacturing, the integration of automation in financial reporting is gaining traction. This is driven by the increasing demand for real-time financial insights, pressure from international stakeholders, and the need to comply with global accounting standards such as IFRS (International Financial Reporting Standards) while navigating local infrastructural and regulatory limitations (Okoye, Iyoha & Akamelu, 2016). While the benefits of automation in financial reporting are well recognized, its implementation in Nigerian multinational companies is fraught with challenges. These include infrastructural deficits, technological skill gaps, resistance to change, and regulatory ambiguities (Onyekwelu & Ugwuanyi, 2014). There is a significant gap in empirical literature focusing on how automation technologies are practically deployed in Nigerian MNCs and what implications this has for the reliability, timeliness, and quality of financial reporting. Furthermore, many existing studies focus on general digital transformation or accounting systems rather than specifically examining automation technologies in financial reporting within the Nigerian multinational context (Akindele, 2020). This study seeks to fill that gap by exploring how these technologies are utilized, their benefits, challenges, and overall impact on financial reporting practices.

Despite the growing adoption of these technologies globally, the extent, modes, and impact of their deployment in Nigeria's multinational sector remain underexplored. Understanding this can provide insights into best practices and policy reforms.

Objectives

The main objective of this study is to examine the deployment of automation technologies in financial reporting practices among multinational companies in Nigeria, with an emphasis on identifying exploitative tendencies. The specific objectives include:

1. Examine the effects of automation on the timeliness and accuracy of financial reporting.
2. Evaluate the extent to which automation technologies improve compliance with international financial reporting standards.

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Research Questions

1. How does the deployment of automation affect the timeliness and accuracy of financial reports?
2. To what extent do automation technologies enhance compliance with IFRS in multinational companies?

Research Hypotheses

H_{o1}: Automation technologies have no significant impact on the timeliness and accuracy of financial reporting.

H_{o2}: Automation technologies have no significant impact on IFRS compliance

LITERATURE REVIEW

The integration of automation technologies in financial reporting has transformed the landscape of corporate finance, especially within multinational enterprises (MNEs). This chapter critically assesses existing literature on automation in financial reporting, focusing on theoretical frameworks, empirical studies, and conceptual models relevant to multinational companies operating in Nigeria. The review highlights the benefits, challenges, and contextual factors influencing the deployment of automation tools in financial reporting practices.

Conceptual Review

Automation Technologies: These are systems and software tools designed to perform routine financial reporting tasks automatically, reducing the need for human intervention. Examples of automation technologies used in financial reporting include:

ERP Systems: Integrated software platforms that automate and manage core business processes, including financial accounting and reporting.

RPA: Robotic Process Automation; software technology that mimics human actions to execute repetitive, rule-based tasks in business processes.

Artificial Intelligence (AI) and Machine Learning: Technologies that analyze large volumes of data to detect patterns, make predictions, and provide insights for financial analysis.

Cloud-Based Reporting Solutions: Systems that enable real-time financial data access and reporting through internet-based platforms.

Financial Reporting Practices: These are methods and processes used by organizations to prepare and present financial statements in accordance with regulatory and international standards

Multinational Companies: They are large companies that operate in multiple countries, including Nigeria, and are subject to various international and local financial reporting requirements.

Theoretical Review

Several theories underpin the understanding of technology adoption in financial reporting. Notably:

Technology Acceptance Model (TAM)

This study adopts the Technology Acceptance Model (Davis, 1989), which posits that two key beliefs—Perceived Usefulness and Perceived Ease of Use influence users decisions to adopt a new technology. This model is especially relevant in understanding how finance professionals within Nigerian MNCs perceive and adopt automation technologies in financial reporting. Other theories such as Diffusion of Innovation, Institutional Theory, and the Resource-Based View (RBV) are acknowledged, but TAM is deemed most appropriate due to its focus on user behavior in technology acceptance.

Empirical Studies

Global Trends in Financial Reporting Automation

Globally, automation is transforming financial functions roles from record-keeping to value adding analysis. Kokina and Davenport (2017) found that automation improves timeliness and quality of reporting in large U.S. firms. In developed economies, firms leverage RPA and AI to automate reconciliations, journal entries, and compliance monitoring (Moll & Yigitbasioglu, 2019). Studies indicate improvements in speed, data integrity, and decision-making (Sutton, Holt & Arnold, 2016).

Adoption in Emerging Markets

In emerging economies like India, Brazil, and South Africa, financial reporting automation is expanding, though hindered by factors such as infrastructure limitations, regulatory lags, and cultural resistance (Krahel & Vasarhelyi, 2014). Nigeria exhibits similar characteristics, making it a significant context for Study. Akintoye et al. (2019) examined Nigerian manufacturing firms and found that automation enhances reporting accuracy and timeliness,

but reduced human oversight raises concerns about data security and system failures. Similarly, Oloruntoba (2020) observed that MNEs in Nigeria increasingly deploy Enterprise Resource Planning (ERP) systems to automate financial processes.

Akindele (2020) found that automation improves financial performance in Nigerian firms, though deployment is uneven across sectors. Onyekwelu and Ugwuanyi (2014) noted that while IFRS compliance has improved reporting quality,technological limitations still constrain full automation.Okoye et al. (2016) emphasized the need for skilled human capital and regulatory support in automating reporting systems.However, few studies focus specifically on MNCs in Nigeria, especially in relation to automation in financial reporting, justifying the exploratory nature of this research.

Challenges in Deploying Automation in Financial Reporting

Several challenges affect the successful implementation of automation, (Krahel & Vasarhelyi, 2014) identified high Initial Cost. Adewale and Alabi (2021) identified challenges faced by Nigerian firms, including inadequate regulatory support, high infrastructural costs,Resistance to Change and Low Digital Literacy, These barriers can undermine automation efficiency if not addressed at both the policy and organizational level.

METHODOLOGY

The study employed a quantitative research design, using structured questionnaires to gather data from finance professionals in multinational companies. The study population includes accountants, auditors, CFOs, and finance managers in MNCs operating in Nigeria. A purposive sampling technique was adopted, selecting 5 companies known for financial automation implementation. A total of 38 valid responses were collected from finance professionals across selected multinational companies in Nigeria. A structured questionnaire was designed based on the study objectives. Respondents answered using a 5-point Likert scale:

- GI – Greatly Improved
- MI – Moderately Improved
- SI – Slightly Improved
- NI – No Improvement
- D – Declined

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Data were analyzed using descriptive statistics and regression analysis via E-Views 9.0. The regression model tested the influence of automation technologies on the dependent variables:

- AFR – Accuracy of Financial Reporting
- IFRS – IFRS Compliance

RESULTS AND DISCUSSIONS

Table 1: Summary of the questionnaires collected

NB: Greatly improved (GI) / Moderately improved (MI) / Slightly improved (SI)/ No improvement (NI)/ and Declined (D)

	Statement	GI	MI	SI	NI	D
	Accuracy of Financial Reporting					
1	To what extent has automation improved the timeliness of financial reporting?	14	23	0	1	0
2	How has automation influenced the accuracy of financial reports?	10	21	2	4	1
3	To what extent has automation reduced errors or misstatements in your financial statements?	12	20	4	2	0
	Improve Compliance With International Financial Reporting Standards (IFRS)					
4	To what extent has automation improved your organization's compliance with IFRS?	11	20	0	6	1
5	Has automation simplified adherence to IFRS and regulatory requirements?	16	22	0	0	0
6	How effectively has the use of automation led to fewer compliance-related penalties or regulatory issues?	12	18	2	6	0
	Adoption of Automation Technologies					
7	To what extent has your organization adopted automation tools in financial reporting?	15	23	0	0	0
8	How effectively do your automation tools perform reporting tasks with minimal human input?	12	18	6	2	0
9	How would you rate the level of employee acceptance of automation tools used in your financial reporting process?	9	25	1	3	0

Source: Field Survey (2025)

Preliminary Analysis

A vast majority of respondents (97%) believe automation has either greatly or moderately improved the timeliness of financial reporting. Similarly, most participants reported moderate to great improvements in accuracy, with only a small number (13%) noting no improvement or decline. This shows that automation has been particularly effective in enhancing both speed

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and precision of financial reports, though there is room for improvement in accuracy outcomes in a few cases.

The majority of respondents reported that automation has significantly improved IFRS compliance. In particular, all 38 respondents agreed that automation has simplified adherence to IFRS, with 100% marking either "Greatly Improved" or "Moderately Improved." However, when it comes to reducing penalties or regulatory challenges, responses were more mixed: while most noted improvements, 6 respondents (16%) saw no improvement, suggesting gaps in system effectiveness or enforcement.

Automation appears to be fully adopted by all organizations surveyed, as all 38 respondents agreed their organizations have integrated these tools (GI = 15, MI = 23). Effectiveness of the tools is also rated positively, though 2 respondents noted no improvement, indicating potential implementation or training issues. Employee acceptance is mostly favorable but slightly lower, with 4 respondents expressing no or only slight improvement, highlighting the need for change management or user training programs.

Data Analysis

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ATT	5	.00	66.00	22.8000	27.95890
AFR	5	.00	64.00	22.6000	27.03331
IFRS	5	1.00	60.00	22.8000	25.83989
Valid N (listwise)	5				

The above table 2 presented descriptive statistics for the dependent variable, automation technology (ATT), with the independents variable, accuracy of financial reporting (AFR), and international financial reporting standard were represented in table above. The mean is used to establish a baseline. The maximum and minimum numbers, on the other hand, aid in the detection of data problems. The variation from the mean is represented by the standard deviation. It is a risk indicator; the greater the standard deviation, the greater the risk. The standard deviation is a metric that expresses how much each item in a dataset deviates from the mean. It is the most reliable and extensively used metric. The standard deviations are 27.96, 27.03 and 25.84, ATT, AFR and IFRS respectively.

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Test of Hypotheses

Hypothesis One

H_{o1}: Automation technology has no significant effect on the timeliness and accuracy of f inancial reporting.

H_{i1}: Automation technology has significant effect on the timeliness and accuracy of financial reporting.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999[a]	.998	.998	1.36072

a. Predictors: (Constant), AFR

In table 3, a regression analysis was conducted to test the automation technology and accuracy of financial reporting. Adjusted R squared is coefficient of determination which provides the distinction in the dependent variable due to changes in the independent variable. From the findings in the table 3, the value of adjusted R squared shows a value of 0.998 showing that there was almost variation of 100% on automation technology due to changes in accuracy of financial reporting. This implies that all changes in automation technology could be accounted for by accuracy of financial reporting.

Table 4: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3121.245	1	3121.245	1685.742	.000[b]
	Residual	5.555	3	1.852		
	Total	3126.800	4			

a. Dependent Variable: ATT
b. Predictors: (Constant), AFR

Table 5; Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.553	.833		-.664	.554
	AFR	1.033	.025	.999	41.058	.000

a. Dependent Variable: ATT

Table 4 reveals that the p-value is 0.000 shows that the hypothesis is statistically significant at level of significance (5%); hence p-value of the test statistic is less than alpha value (0.000<0.05). In table 5, the regressed result shows that an evaluation of the accuracy of financial reporting of the explanatory variable shows positive statistically significant, hence coefficient value = 0.999 and t-statistics is =41.058, showing that accuracy of financial

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reporting is positively statistically significant on automation technology at 5% level of significance.

Decision: Since p-value of the test statistic is less or equal to alpha, we therefore, reject null hypotheses and uphold alternative hypothesis which state that there is a significant effect between automation technology and accuracy of financial reporting.

Hypothesis Two

H_{o2}: Automation technologies have not significantly improved the compliance with international financial reporting standards.

H_{i2}: Automation technologies significantly improved the compliance with international financial reporting standards.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982[a]	.965	.953	6.03966

a. Predictors: (Constant), IFRS

In table 6, a regression analysis was conducted to test the automation technology and improvement in international financial reporting standard. Adjusted R squared is coefficient of determination which provides the distinction in the dependent variable due to changes in the independent variable. From the findings in the table 6, the value of adjusted R squared shows a value of 0.953 showing that there was almost variation of 95% on automation technology due to changes in the improvement in international financial reporting standard. This implies that all changes in automation technology could be accounted for by improvement in international financial reporting standard.

Table 7: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3017.368	1	3017.368	82.719	.003[b]
	Residual	109.432	3	36.477		
	Total	3126.800	4			

a. Dependent Variable: ATT
b. Predictors: (Constant), IFRS

Table 8: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.434	3.794		-.378	.731
	IFRS	1.063	.117	.982	9.095	.003

a. Dependent Variable: ATT

Table 7 reveals that the p-value is 0.003 shows that the hypothesis is statistically significant at level of significance (5%); hence p-value of the test statistic is less than alpha value (0.003<0.05). In table 8, the regressed result shows that an evaluation of the improvement in international financial reporting standard of the explanatory variable shows positive statistically significant, hence coefficient value = 0.982 and t-statistics is =9.095, showing that improvement in international financial reporting standard is positively statistically significant on automation technology at 5% level of significance.

Decision: Since p-value of the test statistic is less or equal to alpha, we therefore, reject null hypotheses and uphold alternative hypothesis which state that there is a significant effect between automation technology and improvement in international financial reporting standard.

CONCLUSION AND RECOMMENDATION

The deployment of automation technologies significantly impacts financial reporting quality among multinational companies in Nigeria. Automation improves timeliness, accuracy, and compliance with global standards such as IFRS.

Based on these findings, it was recommended that:

a. Organizations should increase investment in modern automation tools.
b. Regular training should be provided to staff to ensure proper usage.
c. Regulatory bodies should provide guidelines encouraging technology adoption.

REFERENCES

Adebayo, S. O., & Adewale, A. J. (2021). Impact of enterprise resource planning (ERP) systems on financial reporting accuracy in Nigerian multinational firms. Journal of Accounting and Financial Management, 8(2), 45–60.

Adegbie, F. F., & Ogundipe, O. (2021). Impact of automation on financial reporting quality in Nigeria. International Journal of Accounting and Financial Management Research, 3(2), 45–60.

Adewale, S. A., & Alabi, M. S. (2021). Challenges of implementing automation in Nigerian firms. Nigerian Journal of Business Studies, 24(2), 112–130.

Alexander, D., & Britton, A. (2016). Financial reporting (8th ed.). Cengage Learning.

Akindele, A. I. (2020). Digital transformation in the accounting profession: A Nigerian perspective. Journal of Accounting and Financial Management, 6(3), 45–58.

Akeem, A. R., & Johnson, P. (2022). Adoption of automation in financial reporting: Evidence from Nigerian multinationals. Journal of Financial Technology, 15(3), 45–62.

Akintoye, K., Ojo, O., & Akinbile, A. (2019). Impact of automation on financial reporting

accuracy in Nigeria. African Journal of Business Management, 13(7), 245–259.

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340.

Donaldson, L. (2001). The contingency theory of organizations. Sage Publications.

Eze, P. C., Okafor, V. O., & Nnamani, E. (2020). Challenges in implementing financial automation in Nigerian banking sector. African Journal of Business Management, 14(3), 102–112.

FRS Foundation. (2020). Conceptual framework for financial reporting.

Kokina, J., & Davenport, T. H. (2017). The emergence of artificial intelligence: How automation is changing auditing. Journal of Emerging Technologies in Accounting, 14(1), 115–132.

Krahel, J. P., & Vasarhelyi, M. A. (2014). AIS as a facilitator of accounting change: Technology, practice, and education. Journal of Information Systems, 28(2), 1–15.

Lai, K., & Wong, T. J. (2020). Automation and technological advancement in financial reporting: Opportunities and challenges. Journal of Forensic & Investigative Accounting, 12(1), 123–136.

Moll, J., & Yigitbasioglu, O. (2019). The role of internet-related technologies in shaping the work of accountants. The British Accounting Review, 51(6), 100833.

Ndubuisi, C., & Joseph, M. (2019). Automation and financial reporting efficiency in Nigerian banks. International Journal of Financial Research, 10(4), 89–98.

Nwana, N., & Ameh, K. (2022). Regulatory challenges and financial reporting manipulation in Nigeria. Nigerian Journal of Business Administration, 10(4), 89–100.

Nwosu, A. C., & Olayinka, O. O. (2020). Digital transformation and financial reporting in Nigeria. Journal of Business and Technology, 7(1), 25–39.

Olaleye, A., & Ifeanyi, U. (2022). Regulatory impact on financial technology adoption among Nigerian multinational firms. Nigerian Journal of Economics and Management, 16(2), 75–89.

Okoye, E. I., Iyoha, F. O., & Akamelu, A. N. (2016). The effect of IFRS adoption on firm performance in Nigeria. African Research Review, 10(4), 115–132.

Onyekwelu, U. L., & Ugwuanyi, U. B. (2014). Challenges of adopting International Financial Reporting Standards in Nigeria. International Journal of Business and Management Review, 2(4), 63–77.

Romney, M. B., & Steinbart, P. J. (2018). Accounting information systems (14th ed.). Pearson.

Rogers, E. M. (2003). Diffusion of innovations (5th ed.).

Sutton, S. G., Holt, M., & Arnold, V. (2016). The reports of my death are greatly exaggerated: Artificial intelligence research in accounting. International Journal of Accounting Information Systems, 22, 60–73.