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I. Title page
II. Abstract (150-250 words)
III. Keywords (3-5)
IV. Introduction
V. Literature Review
VI. Methodology
VII. Results and Discussion
VIII. Conclusion and Recommendations
IX. References (APA 7th Edition)
X. Appendices (if necessary)
XI. Author Biographies (optional)

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EFFECT OF GOVERNMENT INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM IMPLEMENTATION ON FINANCIAL GOVERNANCE IN SELECTED MINISTRIES, DEPARTMENTS, AND AGENCIES IN NIGERIA

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ABSTRACT

Financial governance entails the systems, structures, and processes that guide the effective management of financial resources. It includes oversight of financial transactions, operations, compliance, and risk management, supported by sound policies on Budget Preparation Processes, Accounting, Internal Controls, and Expenditure Management. In pursuit of improved financial governance, the Nigerian government leveraging on Information and Communication Technology (ICT) introduced the Government Integrated Financial Management Information System (GIFMIS) as a key reform initiative. This study examines the Effect of GIFMIS Implementation on Financial Governance in selected Ministries, Departments, and Agencies (MDAs) in Nigeria. The study specifically investigates how six core GIFMIS modules—Budget Preparation, Budget Execution, Human Resource, Accounting, Master Data, and Reporting—affect Financial Governance outcomes. A descriptive survey research design was adopted, and primary data were obtained from 140 purposively selected staff engaged with GIFMIS as users' / role players in MDAs across Nigeria's North Central region. Data analysis employed descriptive statistics, Pearson correlation, and multiple regression using SPSS. The findings reveal that some modules significantly influence financial governance, with Budget Execution and Human Resource exhibiting the most substantial positive effects. However, Budget Preparation, Accounting, Master Data and Reporting modules were identified as needing further optimization being that they were yet to be fully deployed to MDAs. The study recommends review and upgrade of other GIFMIS Modules, integrate full deployments of functionalities for effective utilization, targeted capacity building, enhancement of data integrity measures, improved infrastructure, and continuous monitoring to strengthen GIFMIS implementation. The research contributes to the understanding of ICT-driven financial reforms and provides actionable insights for policymakers and practitioners committed to enhancing transparency, accountability, and efficiency in Nigeria's financial management.

Keywords: GIFMIS, Financial Governance, Budget Preparation / Execution, Transparency, Accountability.

1.0 Introduction

Sound financial governance is a cornerstone of sustainable economic development, effective public service delivery, and institutional trust worldwide. Effective financial governance is widely recognized as a foundational pillar for the sustainable development of nations. Globally, governments are increasingly adopting technology-driven solutions to improve transparency, accountability, and efficiency in managing its resources. Developed economies have implemented robust financial governance frameworks such as Public Financial Management (PFM) systems to streamline budget processes, enhance auditability, and mitigate corruption risks. The integration of Information and Communication Technologies (ICT), such as Integrated Financial Management Information Systems (IFMIS) into PFM has become a best practice among European Union and the OECD countries and other high-performing economies, enabling real-time data tracking, efficient allocation of resources, and credible reporting (OECD, 2018). These frameworks not only reduce corruption but also promote fiscal discipline and improved service outcomes.

In Africa, the implementation of integrated financial systems has gained momentum as governments seek to address inefficiencies in public finance and several countries have embraced IFMIS to address longstanding issues such as budget overruns, revenue leakages, and poor accountability. The World Bank (2020) reports that nations like Ghana, Kenya, and Rwanda have achieved measurable improvements in financial governance, fiscal discipline and transparency through the phased implementation of IFMIS. However, the African experience also highlights recurring challenges such as insufficient technical capacity, poor change management, and infrastructural deficits that hamper the effective use of these systems and political interference have hindered full optimization across many nations (AfDB, 2024).

Nigeria's financial governance landscape has historically been characterized and plagued by inefficiencies, irregularities in public spending, mismanagement of funds, lack of transparency, poor accountability and inadequate oversight mechanisms (Okafor, 2017). To address these concerns and align with global best practices, the Federal Government introduced the Government Integrated Financial Management Information System (GIFMIS) in 2012 as part of a broader suite of PFM reforms. GIFMIS was designed to automate and integrate core financial operations such as budgeting, accounting, procurement, and payroll across Ministries, Departments, and Agencies (MDAs), with the overarching goal of enhancing transparency, promoting accountability, and improving the management of public funds (Federal Ministry of Finance, 2019).

Financial governance has to do with accountability which is everyone business as it improved decision-making, greater team collaboration, boosted productivity, risk mitigation, and increased customer satisfaction, Julie Goh (2024). Financial governance provides a strong foundation for companies and ensures greater stability, compliance with all rules and regulations, as well as ethical conduct. It assists organisations in processing their financial data efficiently and having strong monitoring practices. Effective financial governance also represents keeping in line with the latest standards, Alex Jeffery et al (2024).

Financial governance therefore refers to the systems, processes, and policies through which public financial resources are managed to ensure accountability, efficiency, and transparency, Rizki Inmas et al (2024). It encompasses transparency, accountability, compliance with regulations, and the timely and accurate reporting of financial information (Becker & Wehner, 2017). Strong financial governance is essential for public trust, efficient service delivery, and economic development, particularly in developing countries like Nigeria where public financial mismanagement has historically been a challenge (Iyoha & Omorokunwa, 2016).

In Nigeria, the mismanagement of public funds, delayed budget implementation, and inadequate financial reporting have undermined public trust and development efforts. In response, the Federal Government has embarked on several public financial management (PFM) reforms, with the Government Integrated Financial Management Information System (GIFMIS) being one of the most prominent, (Agba & Ushie, 2017).

GIFMIS is an automated system designed to manage public sector financial operations through integrated modules that facilitate budget planning, execution, accounting, reporting, and human resource management, (Musa & Maji, 2018). It aims to provide real-time information for decision-making and ensure efficient and accountable use of public resources. The full implementation of GIFMIS in Nigerian Ministries, Departments, and Agencies (MDAs) is expected to enhance financial governance by improving fiscal discipline, reducing corruption, and ensuring compliance with financial regulations, (Heeks, 2002).

Despite its implementation in several MDAs, empirical assessments of its effectiveness remain scarce, (Ezeani & Okoye, 2016; Olusanya & Adeyemi, 2017). Many studies focus on general ICT adoption in the public sector or financial performance, neglecting the specific impacts of each GIFMIS module on financial governance (Adebayo & Adebayo, 2020). Moreso, despite the notable progress made in implementing GIFMIS, concerns remain about the system's uneven adoption and its actual impact on financial governance outcomes in MDAs. There are also significant gaps in the system's implementation across Ministries, Departments, and Agencies (MDAs). Some MDAs have reportedly experienced challenges in utilizing key GIFMIS modules effectively, while others have leveraged the system to improve their financial operations. Some modules of GIFMIS have been successfully integrated and improved financial governance, while others face operational challenges such as inadequate training, system incompatibility, and infrastructural deficits (Iyoha & Omorokunwa, 2016; Ojo & Sulaimon, 2019). Consequently, there is a need to empirically investigate how specific modules of GIFMIS contribute to—or fall short of—strengthening financial governance across selected Nigerian MDAs.

This study focuses on bridging the gap and evaluating the influence of six major GIFMIS modules—Budget Preparation, Budget Execution, Human Resource,

Accounting, Master Data, and Reporting—on Financial Governance in selected MDAs in Nigeria. These modules are core components of the GIFMIS framework, each playing a unique role in supporting financial planning, execution, control, and reporting. Understanding the individual and collective contributions of these modules is critical for improving the overall effectiveness of the system and advancing Nigeria's financial sector governance objectives. This study is also significant in informing policymakers, development partners, and public administrators on the value and challenges of GIFMIS in achieving sound financial governance. It also contributes to the growing discourse on public financial management reforms in developing economies.

Thus, the main objective of this study is to investigate the Effect of Government Integrated Financial Management Information System (GIFMIS) Implementation on Financial Governance in selected Ministries, Departments, and Agencies (MDAs) in Nigeria. Therefore, the study seeks answers to the following research questions: What are the Effects of Budget Preparation, Budget Execution, Human Resource, and Accounting, Master Data, and Reporting Modules implementation on Financial Governance in selected MDAs in Nigeria?

To achieve this objective, the following null hypotheses were formulated:

H_o1: The Budget Preparation Module (BPM) has no significant effect on financial governance in selected MDAs in Nigeria.

H_o2: The Budget Execution Module (BEM) has no significant effect on financial governance in selected MDAs in Nigeria.

H_o3: The Human Resource Module (HRM) has no significant effect on financial governance in selected MDAs in Nigeria.

H_o4: The Accounting Module (AM) has no significant effect on financial governance in selected MDAs in Nigeria.

H_o5: The Master Data Module (MDM) has no significant effect on financial governance in selected MDAs in Nigeria.

H_o6: The Reporting Module (RM) has no significant effect on financial governance in selected MDAs in Nigeria.

2.0 Literature Review

The Framework of the study conceptualizes the reform of Public Financial Management (PFM) and its relevant functionalities (which contextually include all Modules in GIFMIS such as Budget Preparation Module, Budget Execution Module, Human Resource Module, Accounting Module, Master data Module and Reporting Module) whose compliance and utilization can improve financial governance and invariably influence the study. Understanding them also can impact on the development and improvement of PFM transparency, curb corruption and enhance accountability effectively and efficiently.

Financial Governance: Financial governance is critical in every organisation. It includes systems, policies and processes to govern how finances are managed within a business. Establishing strong financial governance ensures genuine stewardship, accountability, transparency, and sustainability. Without proper structures, procedures, and documentation in place, an organisation risks negatively impacting its operations. Given that trust is the cornerstone of the accounting profession, there is an even greater duty to conduct business ethically and transparently.

Strong governance within organisation includes internal controls, policies and procedures, and clearly defined roles and responsibilities. Effective internal controls create accurate financial records all stakeholders can rely on. For example, it could look like consistent and regular reconciliation processes, mandatory approval for any expenditure over a value the business classes as material, documented processes for how the business recognizes revenue, ensuring each pay run is signed off and fraud-prevention measures. Segregation of duties is also critical especially with limited resources, it's even more important to establish robust it to minimize the potential of inaccurate, untrustworthy or fraudulent financial data.

Hugh Perks (2024) opined that financial governance is important as it provides stability and regulatory compliance within the financial function of a business. It ensures transparency and accuracy for financial data, essential for making informed decisions, and ensuring stakeholders are updated with the correct information. It also helps reduce the risk of legal issues and penalties, protecting the assets and reputation of an organisation. Strong financial governance promotes and supports a culture of stability, integrity and sustainability in any organisation.

Financial governance, often conceptualized as the framework of policies, institutions, and processes governing the allocation and management of public resources, aims to ensure accountability, transparency, and efficient service delivery, Mendoza (2007), Sound financial governance is vital for the public sector to meet the demands of good stewardship and trust placed by citizens, as well as to comply with legal and regulatory standards (Nwogugu, 2015). Thus, financial governance refers

to the frameworks and processes by which public financial resources are planned, directed, monitored, and controlled in order to achieve fiscal responsibility and development outcomes. It encompasses budget discipline, transparency, accountability, risk management, regulatory compliance, internal controls and audit responsiveness (OECD, 2018). Effective financial governance ensures that public funds are allocated, utilized efficiently, ethically, and in alignment with national priorities. Indicators often used to assess financial governance include transparency, accountability, fiscal compliance, reporting timeliness, and control over fraud and waste.

According to Allen and Tommasi (2001), financial governance includes "the institutions, policies, and procedures that governments use to manage public resources effectively, efficiently, and transparently." It is a multidimensional construct encompassing budget credibility, internal control, external oversight, financial reporting, and fiscal discipline.

OECD (2013) identifies transparency, accountability, rule compliance, and participation as core pillars of financial governance. It is a key pillar of public trust and institutional effectiveness in both developed and developing countries (World Bank, 2020). These elements ensure that public funds are managed in a manner that fosters trust and minimizes opportunities for mismanagement or corruption. Poor financial governance, as noted by Schick (1998), often leads to wasteful spending, distorted priorities, and weakened government legitimacy.

In the Nigerian context, Okpala (2012) posits that "financial mismanagement and lack of accountability have remained persistent challenges, despite ongoing public financial management reforms." Also, financial governance has faced challenges such as lack of transparency, ineffective budgeting, poor financial reporting, and weak control systems (Okafor, 2017). These issues have prompted government reforms aimed at strengthening financial management through automation and ICT adoption. This underscores the need for integrated systems like GIFMIS to enhance financial governance outcomes.

The Integrated Financial Management Information System (IFMIS) is an information technology framework that supports these governance objectives by automating and integrating key financial functions. Government Integrated Financial Management Information System (GIFMIS) is an IT based solution for public financial management and accounting that is being implemented by the Federal Government of Nigeria (FGN) to improve Public Expenditure Management processes, enhance greater accountability and transparency across Ministries, Departments and Agencies (MDAs). It enables real-time recording, processing, and reporting of financial transactions and budget implementation (Federal Ministry of Finance, 2019).

GIFMIS is designed to make use of modern information and communication Technology (ICT) to help the Government of Nigeria to plan and use its financial resources more efficiently and effectively, reduce corruption, increase ability of FGN to undertake more effective control and monitoring of expenditure and receipts in the MDAs and ensure safety of resources while processing financial transactions faster at a much lower cost, improvement of the reliability and easy access of information on Financial management and operational performance. GIFMIS FAQ (2017).

Government Integrated Financial Management Information System (GIFMIS) comprises various modules designed to automate and integrate public sector financial operations. These modules interact to provide real-time data, improve decision-making, and ensure accountability in the management of public resources. According to Kemi Adeosun (2018), it should be appreciated that when all financial management processes are auto mated, efficiency will be realized, wastages avoided, transparency enhance and reliability of Information enameled thereby improving the quality of management decisions and refocusing the efforts of government on delivering value to Nigerians through better services provided. It is also known that automation eliminate the unnecessary manual processes and place more reliance on electronic ones.

Moreso, Ahmed Idris (2018), opined that the efforts to automate Financial management processes of government using Government Integrated Financial Management Information System (GIFMIS) have gone a long way as they have automated medium term planning process, the annual budget preparation cycle, cash management processes, warrant preparation and authorization, payables for commitment management and expenditure control inculcating IPSAS accrual basis of accounting processes, revenue and receivables management, stores management, assets management, accounting processes and reporting among others, saying "yes we have made progress but the journey is far from over. Yes, the journey is far and that is the essence of this research.

According to the World Bank (2015), IFMIS typically consists of six core modules that work synergistically; GIFMIS enables the automation of the budget cycle in line with government commitment to improve timeliness of budget preparation and approval.

The Budget Preparation Module (BPM) supports strategic and evidence-based budgeting by facilitating

macroeconomic analysis, expenditure forecasting, and resource allocation, allowing for the integration of data, expenditure ceilings, and sectoral priorities into a single digital platform while supporting participatory planning and ensuring the alignment of budgetary allocations, fiscal discipline with development objectives, (Aluko & Dada, 2019). This module is expected to enhance transparency by minimizing arbitrary allocations and enabling traceable input across all departments. According to Diamond and Khemani (2009), "automated budget preparation systems reduce manual errors and increase budget realism by integrating sectoral plans and fiscal projections." In a study on IFMIS effectiveness, Kahilu (2010) found that "the adoption of electronic budget planning tools improved transparency and participatory budgeting in Tanzanian MDAs." Effective budget preparation enables accurate forecasting and resource allocation, which are essential to financial governance, Okoli & Ezejiofor, (2018). In Nigeria, the Office of the Accountant General reports that the Budget Preparation Module (BPM) has enabled ministries to prepare annual budgets based on real-time data, reducing political interference and enhancing fiscal discipline (OAGF, 2020).

The Budget Execution Module (BEM) - ensures that expenditures align with approved budgets through automated budget implementation processes and commitment controls, cash flow / planning, cash management processes and expenditure authorization and tracking helping to prevent overspending and unauthorized payments. It enhances control mechanisms and fiscal compliance (Becker & Wehner, 2017). As explained by Peterson (2006), "a well-functioning budget execution system is essential to ensure that budgeted policies are implemented effectively." It ensures that expenditures are executed according to approved budgets and promotes accountability by preventing unauthorized spending and tracking deviations from budget plans. Studies in Kenya and Uganda have shown that the BEM reduces unauthorized spending and limits fiscal indiscipline (World Bank, 2012). In Nigeria, Akinboade and Olowookere (2019) highlight that "the integration of procurement and payment systems through GIFMIS has curtailed delays and enhanced procurement efficiency."

The Human Resource Module (HRM) - links employee records with payroll systems, enabling governments to manage staff costs effectively and prevent ghost worker fraud. It also ensures that recruitment, promotions, and payments align with budgetary provisions and HR policies, thereby promoting compliance and operational efficiency. According to Hashim and Allan (2001), "integrated HR and payroll systems improve control over wage bills and reduce fraudulent payments." Empirical studies in Ghana by Andrews and Bawa (2014) show that the HRM has led to a 17% reduction in personnel-related fraud. While crucial for controlling salary payments and preventing ghost workers, its effectiveness depends on data accuracy and integration with other modules (Ezeani & Okoye, 2016). In Nigeria, reports by the Integrated Personnel and Payroll Information System (IPPIS) office confirm that integrating HRM within IFMIS has increased transparency and reduced irregularities in public payroll systems (IPPIS, 2021).

The Accounting Module - is central to transaction recording, ledger management, Trial balance Reports and financial reconciliation. It enhances the accuracy and timeliness of accounting records, enables real-time recording of financial transactions and provides functionalities for general ledger operations, asset management, and fund accounting, Nwogugu, (2015). It enhances the integrity and accuracy of financial information, thus reducing the incidence of fraud and errors in reporting. As noted by Dorotinsky (2008), "a robust accounting system ensures that all transactions are recorded, classified, and reported according to accepted accounting standards." In the Nigerian context, the adoption of the Accounting Module (AM) under GIFMIS has facilitated compliance with IPSAS standards and improved the production of Consolidated Financial Statements (OAGF, 2021). Nwosu and Ogbodo (2020) report that this module has significantly reduced delays in financial reconciliation and year-end closures.

The Master Data Module (MDM) - is responsible for maintaining centralized database, consistent classification systems, codes, and organizational structures, vendor information used across all GIFMIS components or modules (World Bank, 2015). This ensures data consistency and comparability, minimizes duplication, and enhances uniformity in financial reporting. It is fundamental to the reliability of financial records across MDAs. According to Chêne (2009), "Master Data standardization is a prerequisite for reliable financial reporting and auditability." Studies in Malawi by Chikondi and Matemba (2018) found that implementation of the MDM minimized duplication and improved internal control by maintaining a single source of financial truth.

The Reporting Module - provides real-time financial reports, dashboards, and analytics for decision-makers. It provides standardized and customizable financial reports, including budget performance reports, cash flow statements, and balance sheets accountability, Becker & Wehner, (2017). By offering real-time and comprehensive data, it supports timely decision-making, audit readiness, and stakeholder accountability. According to the IMF (2016), "reporting modules enhance transparency by enabling

stakeholders to access standardized financial information on demand." In a study on IFMIS adoption in Zambia, Mwanza and Simuchile (2017) observed that the RM improved audit readiness and compliance with reporting timelines. Similarly, in Nigeria, Okonjo-Iweala (2020) emphasized that "accurate and timely reporting under IFMIS has strengthened the government's capacity for policy-based budgeting."

This conceptual framework highlights how each GIFMIS module contributes uniquely to the improvement of Financial Governance. By automating and integrating various functions, GIFMIS aims to close loopholes, enforce accountability, and support evidence-based public finance management. Also by linking these modules, GIFMIS offers an integrated platform that can significantly improve the quality of financial governance. However, the successful contribution of each module is contingent on factors such as the adequacy of technological infrastructure, user competency, and institutional readiness (Heeks, 2002). Thus, while GIFMIS holds great promises, empirical assessment of each module's influence on governance is necessary to understand its real-world impact in Nigerian MDAs.

2.2 Empirical Reviews

2.2.1 GIFMIS and Fianancial Governance

This section presents a comprehensive review of existing empirical studies that explore the relationship between the implementation of Government Integrated Financial Management Information Systems (GIFMIS) and Financial Governance outcomes, with a particular emphasis on selected Nigerian MDAs. Empirical literature serves as the foundation for validating theoretical assumptions and understanding practical outcomes across varying administrative and geographical settings. It provides tested knowledge about what works, under what conditions, and why. Drawing from Global, Africa, and Nigeria perspectives, this review outlines the observable trends in GIFMIS implementation, especially its modules, and their impacts on transparency, accountability, efficiency, and financial discipline in the public sector.

The review is structured around the dependent variable (financial governance) and the independent variables, which are the core GIFMIS modules: Budget Preparation Module (BPM), Budget Execution Module (BEM), Human Resource Module (HRM), Accounting Module (AM), Master Data Module (MDM), and Reporting Module (RM). By critically evaluating findings from previous research, this chapter aims to highlight existing evidence, identify consistent patterns, note areas of disagreement, and provide justification for the current study's hypotheses and methodology.

2.2.2 Financial Governance

Over the years, numerous studies have examined the effects of financial management information systems on financial governance across various contexts. These studies provide insights into how specific components or modules of integrated financial systems, such as GIFMIS influences transparency, accountability, budget performance, and overall financial governance outcomes.

In Global overview, Chêne (2009) explored global experiences with IFMIS adoption and its role in combating public sector corruption and inefficiencies. The study employed a meta-analytical review of IFMIS implementation across over 20 developing countries. The findings reveal that IFMIS improved transparency, particularly where it allowed real-time access to budget execution data. However, success depended on political commitment, in the context-specific variables such as legal frameworks, ICT infrastructure, and staff training and recommended that Governments should ensure system interoperability and build human capacity to ensure sustainability.

The World Bank (2015) conducted a global review of IFMIS projects and concluded that the degree to which IFMIS improves governance depends on contextual factors such as legal frameworks, political will, and technical capacity utilizing comparative metrics across over 30 IFMIS projects globally. They emphasized that focusing on individual system modules can yield better insights into performance gaps and improvement opportunities.

Becker & Wehner (2017) extended this research in developing countries by conducting cross-national analysis on IFMIS adoption. They employed statistical correlation techniques to demonstrate their empirical evidence which suggest that IFMIS implementation, particularly the Reporting and Master Data Modules, led to significantly higher fiscal performance and public trust ($r = 0.68$, $p < 0.01$). They also identified organizational culture and government commitment as critical factors influencing outcomes.

2.2.3 Budget Preparation Module (BPM)

In Ghana, Agyemang & Frimpong (2019) examined the impact of the Integrated Financial Management Information System on expenditure management in the Ghanaian public sector. They applied regression analysis and found that BPM contributed significantly to reducing budget variance with an Adjusted R^2 of 0.52 and $p < 0.05$. Their findings showed that GIFMIS significantly improved budget execution and minimized leakages in expenditure flows. They noted that modules such as Budget Preparation and Budget Execution had the strongest impact on transparency and control, consistent with the objectives of this study. In Ghana also, Mensah and Adusei (2021)

found comparable results, highlighting that integrated financial systems contribute to improved transparency and reduced corruption risks, but emphasized the need for robust data management and periodic system updates.

Otieno & Nyonje (2016) reported that BPM was significantly associated with enhanced fiscal discipline in Kenya's county governments, supported by multiple regression output $R^2 = 0.67$, F-statistic = 12.345, $p < 0.001$. Adegbite & Awoniyi (2018), using correlation analysis, found a strong relationship between BPM deployment and budget realism in Nigerian MDAs ($r = 0.70$, $p < 0.01$). Okezie & Akanwa (2021) found that MDAs that actively used the Budget Preparation and Budget Execution modules experienced stronger internal controls, while those lagging in the use of the Human Resource and Master Data modules continued to suffer from payroll fraud, ghost workers, and inconsistencies in financial reporting. Similarly, Ojo & Sulaimon (2019) assessed IFMIS impact on budget performance and concluded that BPM and BEM significantly enhance budget compliance and reduce leakages. Their study used a sample of 150 finance officers and applied regression analysis to demonstrate a positive relationship between IFMIS usage and budget discipline.

2.2.4 Budget Execution Module (BEM)

Kahilu (2010) investigated the role of IFMIS in enhancing financial accountability in Tanzanian MDAs. A descriptive survey with a sample of 60 financial officers was used; data analyzed using SPSS and regression models. The findings revealed the Budget Execution and Reporting Modules to significantly improved financial compliance and reduced leakages, MDAs ($p < 0.05$). He also observed that BEM promoted timely fund releases and reduced manual errors in Tanzanian MDAs. He suggested deeper integration of procurement and payroll systems to increase effectiveness. Mensah & Adusei (2021) employed descriptive statistics showing 87% of respondents agreed that real-time monitoring through BEM enhanced accountability in Ghana.

Adebayo & Adebayo (2020) investigated the impact of IFMIS on public financial management in Nigeria, focusing on selected MDAs. Using a survey of 150 finance and accounting staff, they employed descriptive and inferential statistics, including regression analysis, to assess system effectiveness. Their findings revealed a significant positive relationship between IFMIS usage and enhanced financial accountability, especially through modules related to budget preparation and execution, ($r = 0.63$, $p < 0.01$). They also reported that Nigerian MDAs using BEM had better compliance with expenditure limits and improved cash flow management. They recommended continuous user training and infrastructural upgrades to sustain the gains of IFMIS.

Wamuyu & Kamau (2013) evaluated how IFMIS contributed to improved public expenditure tracking in Kenya. The researchers used a mixed-method approach, combining interviews with 45 officials and analysis of financial records over five years. Their findings revealed that the system enhanced tracking and control over budget execution but was hindered by weak internet connectivity and resistance to change. They recommended that Government should invest in ICT infrastructure and capacity development. Also, Otieno & Nyonje (2016) assessed whether IFMIS improves financial governance at the sub-national level in Kenya. They deployed the method of Quantitative analysis with a sample size of 90 accountants and auditors; data analyzed using multiple regression analysis. Their findings revealed Significant positive relationships were found between the Accounting and Reporting modules and audit responsiveness. They recommended frequent system updates and internal audits to sustain performance.

2.2.5 Human Resource Module

Asiimwe & Musisi (2020) assessed the adoption of financial management systems in Uganda. They reported that the systems promoted timely reporting and enhanced internal controls; They conducted a mixed-methods study and used ANOVA to test the significance of HRM adoption on payroll integrity, with results showing $F(3, 89) = 6.234$, $p < 0.01$ and found out that the Human Resource module remained underdeveloped and poorly integrated into the broader financial framework. They noted that Uganda's HRM integration within IFMIS lagged behind due to data inconsistency, yet improved payroll accountability. This aligns with one of the hypotheses of the current study which seeks to assess the contribution of the Human Resource Module (HRM) to financial governance in Nigeria.

In Nigeria, Nwosu & Ogbodo (2020) explored IFMIS impact on internal control and financial discipline in Nigeria. Their Methodology was a Survey of 100 finance officers across six federal MDAs using structured questionnaires and correlation analysis and reported that HRM significantly reduced ghost worker incidents based on correlation analysis ($r = 0.58$, $p < 0.05$) and aligned staff cost with actual personnel records. Their findings revealed that Accounting and HR Modules contributed significantly to cost control and reduced instances of ghost workers. They recommendation was encouragement of full deployment of IFMIS modules across all MDAs and improve data standardization protocols. Agba and Ushie (2017) observed, using regression analysis, that HRM explained 45% of variance in wage bill accuracy (Adjusted $R^2 = 0.45$).

Ezeani & Okoye (2016) explored implementation challenges of IFMIS in Nigerian federal ministries using a mixed-method approach. Their sample

included 80 financial officers, and they applied descriptive statistics and thematic analysis. Their results highlighted that despite the technological advancements, inadequate training and infrastructure issues undermined the HRM and Accounting modules' functionality, limiting the overall impact on financial governance.

2.2.6 Accounting Module

A study by Adegbite & Awoniyi (2018) on the influence of GIFMIS on public sector accountability in federal ministries revealed that the Accounting and Reporting modules were instrumental in curbing financial mismanagement. The study observed that the automated features of the Accounting Module significantly reduced human error and encouraged real-time financial updates, leading to increased reliability in public financial statements. They emphasized that AM provides timely and accurate financial records essential for audit and reporting. In Ghana, Agyemang & Frimpong (2019) found that AM facilitated automatic reconciliation and reduced transactional delays.

Yusuf & Salisu (2021) demonstrated that in Nigeria, AM promoted standardized chart of accounts and compliance with IPSAS among MDAs using AM, as verified through descriptive indices and audit return improvements. Ibrahim and Tijani (2021) observed that consistent use of AM correlated with improved financial oversight by internal and external auditors but also linked AM use with improved audit trail clarity ($r = 0.69, p < 0.01$).

2.2.7 Master Data Module (MDM)

Okwoli et al. (2021) argued that MDM remains the backbone of IFMIS, ensuring data consistency across modules. They utilized inferential analysis to determine that weak MDM implementation led to inconsistent financial records, with a significance level of $p < 0.05$. However, their study noted data duplication and irregular updates in Abuja-based MDAs. Otieno and Nyonje (2016) recommended central oversight for MDM updates to avoid fragmentation, which aligned with the outcome of this research.

In contrast, Eze & Udu (2022) reported that MDAs with robust MDM structures were better equipped to track asset inventories and vendor records, improving procurement transparency. They employed thematic analysis and confirmed better procurement tracking and audit readiness in MDAs with robust MDM structures.

2.2.8 Reporting Module (RM)

Agba & Ushie (2017) conducted a case study on IFMIS and accountability in Nigeria's public sector. Their qualitative and quantitative approach involved interviews and questionnaires administered to 100 respondents across various ministries. They identified that while IFMIS improved financial reporting and reduced opportunities for fraud, challenges such as resistance to change, lack of adequate technical support, and poor data quality limited its full potential. They stressed the need for robust change management strategies and periodic system audits.

In a study by Aluko & Dada (2019), the effect of IFMIS on financial transparency and accountability was examined using data from 120 MDAs employees. They reported a strong correlation between RM and audit responsiveness ($r = 0.72$, $p < 0.01$). Employing correlation and regression analysis, they found strong statistical support that the Budget Execution and Reporting modules significantly improved transparency and financial discipline. However, their findings showed that the Human Resource and Accounting modules did not significantly influence governance outcomes, echoing similar observations by Ezeani & Okoye (2016), who noted that these modules often suffer from incomplete data integration and user errors. Becker and Wehner (2017) emphasized RM's impact on fiscal transparency, enabling real-time access to financial reports. Izang et al. (2022) found RM effective for fraud tracking using multiple regression (Adjusted $R^2 = 0.58$, $F = 30.880$, $p < 0.001$), providing concrete support for RM's role in enhancing financial governance.

2.2.9 Other Notable Empirical Findings

Ezeani & Okoye (2016) explored implementation challenges of IFMIS in Nigerian federal ministries using a mixed-method approach. Their sample included 80 financial officers, and they applied descriptive statistics and thematic analysis. Their results highlighted that despite the technological advancements, inadequate training and infrastructure issues undermined the HRM and Accounting modules' functionality, limiting the overall impact on financial governance.

Furthermore, Okwoli, Sule, & Ijeoma (2021) conducted a modular assessment of GIFMIS implementation across selected MDAs in Abuja. Their research found that while the Budget Execution and Reporting modules were being effectively utilized, the Master Data Module suffered from irregular updates and inconsistencies in data entries. This directly supports the fifth hypothesis in the current study that investigates the effect of the Master Data Module on financial governance.

Eze & Udu (2022) extended their empirical investigation to the southern region of Nigeria and found a positive correlation between GIFMIS deployment and financial discipline. However, their study emphasized that organizational resistance and lack of ongoing training reduced the full utilization of the Reporting and Human Resource modules. This

reinforces the need for capacity-building initiatives recommended in this current research.

Yusuf & Salisu (2021) Examined how IFMIS adoption influences fiscal transparency in Nigeria. Their Methodology was a Case study approach involving three ministries with in-depth interviews and document review. Findings Identified improvements in budget credibility and report accuracy but challenges with data inconsistencies and weak change management practices. They Urged for better coordination among MDAs and regular IFMIS audits.

In a broader comparative study, Yusuf and Mohammed (2020) analyzed the differences in GIFMIS effectiveness between urban and rural-based MDAs. They concluded that infrastructural limitations, particularly in the North Central and North Eastern regions of Nigeria, hindered the smooth operation of several modules, especially Reporting and Master Data. This geographical limitation highlights the relevance of the present study, which focuses on the North Central region of Nigeria.

Ibrahim and Tijani (2021) found that MDAs with higher GIFMIS training uptake demonstrated significantly better financial governance outcomes. Their findings are essential to this current study, as they support the hypothesis that efficient implementation and use of GIFMIS modules are key drivers of improved accountability and transparency.

Izang, J. Ua, et al (2022) examined the effect of integrated management information system on fraud investigation in Nigerian public sector. 137 copies of questionnaires were distributed to government personnel in the designated agencies as part of the study's survey design and 133 were returned. The data was analysed using descriptive and inferential (Multiple regression) methods. The result of the finding integrated financial management information has significant effect on fraud investigation in Nigerian public sector. Adj. R2= 0.58, F- statistics 30.880, P- value >0.000. The study concluded that integrated financial management information system has significant effect on fraud investigation. The study recommended that the government should guarantee that fiscal transparency is encouraged across the system in order to ensure active public and government engagement. Contrastingly, Olusanya and Adeyemi (2017) reported challenges such as resistance to change, system complexity, and inadequate technical support hampering IFMIS effectiveness in Nigeria. Their qualitative study among public sector employees recommended enhanced training and stakeholder engagement.

These empirical findings underscore the importance of considering each GIFMIS module's specific contributions and challenges when evaluating the system's overall impact on financial governance. The reviewed empirical studies collectively indicate that GIFMIS implementation tends to improve financial governance, especially in terms of transparency, accountability, and compliance. However, limitations such as poor infrastructure, inadequate training, and resistance to change often undermine its full potential. Also most of the studies focus on general system-level outcomes, with limited disaggregation by module.

Also, there is insufficient quantitative evidence from Nigeria using large sample sizes or advanced econometric techniques—highlighting a key methodological and geographical gap that this study aims to address.

Together, these empirical studies provide a solid foundation for understanding how each module of GIFMIS contributes to the broader goal of improving financial governance. However, many of the studies are either generalized in scope or geographically limited. There is a noticeable gap in region-specific, modular-level assessments of GIFMIS implementation, especially in the North Central region of Nigeria, Sharang (2018). This study contributes to filling that gap by examining the effects of individual GIFMIS modules—Budget Preparation, Budget Execution, Human Resource, Accounting, Master Data, and Reporting—on Financial Governance outcomes in selected MDAs in this region.

Empirical Review Matrix on GIFMIS Implementation

Author(s) & Year	Country	Sample Size	Key Findings	Key Outcome
Chêne (2009)	Global	20+ countries	Meta-analysis of IFMIS in developing countries	Transparency ↑ with real time access
World Bank (2015)	Global	Not Specific	IFMIS improves governance depends on contextual factors	Individual system modules yield insight into gaps↑
Becker and Wehner (2017)	Global	Cross-national analysis	Reporting and Master Data modules, led to higher fiscal performance and public trust.	organizational culture and government commitment↑ influencing outcomes.
Agyemang & Frimpong(2019)	Ghana	Not specified	GIFMIS improved expenditure management	Budget execution & control ↑
Asiimwe & Musisi (2020)	Uganda	Not specified	Promoted timely reporting; weak HR module	Reporting ↑; HRM weak
Kahilu (2010)	Tanzania	60	Descriptive survey on IFMIS in MDAs	Compliance ↑; leakages ↓
Wamuyu & Kamau (2013)	Kenya	45	Mixed-method study on expenditure tracking	Tracking ↑; ICT limits
Otieno & Nyonje (2016)	Kenya	90	Quantitative analysis of audit responsiveness	Audit response ↑
Nwosu & Ogbodo (2020)	Nigeria	100	Survey on internal control in 6 MDAs	Cost control ↑; ghost workers ↓
Adegbite & Awoniyi (2018)	Nigeria	Not specified	Study on GIFMIS modules in federal ministries	Error ↓; real-time update ↑
Adebayo & Adebayo (2020)	Nigeria	Not specified	Survey on MDAs, HRM and AM faced setbacks	Monitoring ↑; training issues
Okwoli et al. (2021)	Nigeria	Not specified	Modular assessment in Abuja MDAs	Budget modules ↑; MDM inconsistent
Eze & Udu (2022)	Nigeria	Not specified	GIFMIS use in southern region	Discipline ↑; training gaps
Yusuf & Salisu (2021)	Nigeria	3 ministries	Case study on transparency	Budget accuracy ↑; data issues
Agba and Ushie (2017)	Nigeria	100	qualitative and quantitative approach	Agba and Ushie (2017)
Aluko and Dada (2019)	Nigeria	120 MDAs employees	Employing correlation and regression analysis	Aluko and Dada (2019)
Okezie & Akanwa (2021)	Nigeria	Not specified	Budget module use and fraud	Controls ↑; HRM/MDM weak
Ojo & Sulaimon (2019)	Nigeria	150	Impact on budget performance	Compliance ↑; leakages ↓
Izang, J. Ua, et al (2022)	Nigeria	137	Significant effect on fraud investigation	Fiscal transparency for public and government engagement.
Mensah & Adusei (2021)	Ghana	Not specified	Transparency and corruption risk	Corruption ↓; data management needed
Olusanya & Adeyemi (2017)	Nigeria	Not specified	Qualitative study on resistance to IFMIS	Challenges: complexity, resistance

2.3. Theoretical Framework

The study of the Effect of Government Integrated Financial Management Information System (GIFMIS) implementation on financial governance is grounded in several theoretical frameworks that explain the relationship between information systems, organizational behavior, and governance outcomes. This study reviews the most relevant theories for understanding the relationship between GIFMIS and financial governance, highlighting their assumptions, limitations, and relevance to this study.

Agency Theory propounded by Jensen and Meckling (1976) describes the relationship between principals (e.g., citizens or political leaders) and agents (e.g., public servants), where agents are entrusted to manage resources on behalf of principals. Agents may not always act in the best interests of the principals due to goal divergence, information

asymmetry, and lack of incentives for transparency. It relevance to Study is that GIFMIS is designed to reduce agency problems by enhancing transparency, automating controls, and making financial data more accessible to oversight institutions. According to Eisenhardt (1989), the use of monitoring systems is a key strategy to align agent behavior with principal interests. Also, it addresses the relationship between principals (e.g., government or citizens) and agents (e.g., public officials or MDAs) and the conflicts that arise due to differing interests and information asymmetry. The theory suggests that mechanisms such as monitoring and reporting systems are necessary to align the agents' behavior with the principals' interests. GIFMIS can be seen as an institutional tool that reduces information asymmetry by automating financial transactions, improving transparency, and facilitating audit trails. Therefore, GIFMIS implementation supports agency theory's call for better control and accountability mechanisms in public financial management (Heeks, 2002). However, agency theory often assumes rational behavior and may overlook socio-political influences on governance.

The Institutional Theory - propounded by Meyer and Rowan (1977) explains how institutional norms, rules, and pressures influence organizational behavior and practices. Organizations adopt certain practices (like GIFMIS) not only for efficiency but to gain legitimacy. It assumed that organizations conform to external expectations (such as global public finance standards) to gain acceptance, funding, or legitimacy, regardless of whether those practices are fully effective internally. It relevancy to this study is that the Nigerian government's adoption of GIFMIS can be seen as a response to institutional pressure from international bodies like the World Bank and IMF, rather than just a quest for internal efficiency. This helps explain why GIFMIS may be implemented unevenly or symbolically across MDAs. But the theory failed to account for performance outcomes and focuses more on conformity than functionality.

Technology Acceptance Model (TAM) propounded by Fred Davis (1989) explains how users come to accept and use a technology, based on perceived usefulness and perceived ease of use. That successful adoption of technology depends largely on users' attitudes and intentions, influenced by their perception of its utility and complexity. It relevancy to the study is understanding how finance and administrative staff perceive GIFMIS modules is critical to its successful implementation. If users find it difficult or irrelevant, the intended outcomes on financial governance may not materialize. The model assumes that if users perceive an information system like GIFMIS as useful and easy to use, they are more likely to adopt and integrate it into their work processes (Davis, 1989). This theory is relevant to the current study because successful GIFMIS implementation hinges not only on the availability of the technology but also on the willingness and ability of staff within Ministries, Departments, and Agencies (MDAs) to adopt the system modules effectively. Several scholars (e.g., Aluko & Dada, 2019; Ezeani & Okoye, 2016) have highlighted user acceptance as a critical factor in the performance of IFMIS in Nigerian public institutions. TAM focuses more on individual behavior and less on organizational or systemic factors like infrastructure or leadership. It focuses on individual users and may underemphasize organizational and contextual factors that also affect system use.

The Systems Theory propounded by Ludwig von Bertalanffy (1968) posits that an organization is a system of interrelated components working together to achieve common objectives. Effective performance depends on the smooth interaction of these components; that a malfunction in any subsystem (e.g., payroll, budgeting, reporting) affects the overall performance of the financial system. It relevance to this study is that GIFMIS operates as a system of interconnected modules such as budgeting, accounting, human resource and reporting into a unified system that must interact seamlessly to promote financial governance. This integration facilitates efficient information flow, reduces redundancy, and supports coordinated decision-making within MDAs (World Bank, 2015). The theory supports the study's focus on analyzing distinct GIFMIS modules and their collective impact on financial governance. According to Scott (2003), systems integration promotes efficiency and adaptability in complex organizations, but systems theory may oversimplify human and institutional resistance to change and does not fully account for political interference in system implementation.

Thus, the study was based on system theory as understanding system integration would help Investigate the effect of different modules of GIFMIS (e.g., budgeting, accounting, procurement, reporting) interaction and its impact on the overall system and also improved a deeper understanding of the factors influencing GIFMIS implementation in MDAs while identifying best practices for GIFMIS implementation, training, and change management and providing recommendations for policymakers, system administrators, and users to improve overall GIFMIS implementation and use.

3.0 Methodology

The essence of this research was to unravel how selected Nigerian MDAs will be affected by Government Integrated Financial Management Information System (GIFMIS) and financial governance. This study adopted a descriptive survey research design, which is appropriate for examining

relationships among variables and assessing perceptions and experiences of respondents in their natural setting (Creswell & Creswell, 2018). The survey design facilitated the systematic collection of primary data concerning how GIFMIS modules (Budget Preparation, Budget Execution, Human Resource, Accounting, Master Data, and Reporting) influence financial governance in the selected MDAs. The survey research approach was the best in that not all staff of MDAs are users or role players of GIFMIS Modules and functionalities but selected few according to their nature of task assigned. The target population of 216 comprised budget and accounts officers, internal auditors, procurement personnel and others involved in the use and implementation of GIFMIS within selected MDAs in Nigeria, specifically North Central Region including states like Niger, Benue, Kogi, Kwara, Nasarawa, and the Federal Capital Territory. These officers are directly involved in the day-to-day application of various GIFMIS modules as role players. A purposive sampling technique was employed to select 140 respondents from relevant units across selected MDAs actively utilizing GIFMIS. This technique is suitable for this study due to the specialized knowledge required of participants and the need to ensure that only those with direct experience using GIFMIS are surveyed (Etikan, Musa, & Alkassim, 2016).

The sample size for this study was determined through a combination of statistical calculation and methodological justification. First, Yamane's (1967) formula for finite populations was employed to estimate a minimum required sample size at a 95% confidence level and 5% margin of error. The formula: $n = N / [1 + N(e^2)]$, where N = 216 and e = 0.05, yielded a sample size of approximately 138. To enhance statistical power and ensure adequate representativeness, the sample size was increased to 140 respondents, representing approximately 64.81% of the total population. This adjustment ensures that the study maintains sufficient sensitivity for detecting medium-sized effects (Cohen's d = 0.5) with 80% power at a 5% level of significance ($\alpha = 0.05$), which is consistent with standards in social science research. Importantly, this decision aligns with the principles outlined by Lakens (2022), who advocates for transparent and contextually grounded sample size decisions. Rather than relying on traditional but inflexible tables (e.g., Krejcie & Morgan, 1970), Lakens emphasizes the importance of combining statistical reasoning, study design, and resource constraints to justify sample size. Thus, this study integrates both quantitative rigor and methodological clarity in selecting a sample size that is not only statistically defensible but also practically feasible. Therefore, the formula for determining sample size from a finite population is given by:

$$n = N / [1 + N(e^2)]$$

Where:

n = Sample size

N = Population size = 216

e = Margin of error = 0.05 (corresponding to a 95% confidence level)

Substituting the values:

$n = 216 / [1 + 216(0.05)\text{^}2]$

$n = 216 / [1 + 216 \times 0.0025]$

$n = 216 / [1 + 0.54]$

$n = 216 / 1.54$

$n = 140.259$ Sample Size approximated: 140

Thirty (37) structured questionnaire [five (5) questions each for Independent variable and seven (7) questions also for dependent variable] was used to collect data and the independent variables of the study were Budget Preparation Module, Budget Execution Module, Human Resource Module, Accounting Module, Master Data Management and Reporting Module while Financial Governance was the Dependent variable. The reliability of the constructs was tested using Cronbach alpha with results of 0.76, 0.86, 0.73, 0.87, 0.195, and 0.865 respectively. The dependent variable was Financial Governance with a Cronbach alpha results of 0.869 which indicated that significant percentage of 86.9 are reliable enough for the study, exception of one variable with 0.195% but they exceeded benchmark of 0.7. 140 questionnaires were administered to respondents and all were completed and returned representing 100% return rate. The 140 were used in this study for analysis. The Ordinary Least Squares (OLS) method, specifically the multiple regression analysis technique, was employed for data analysis using the Statistical Package for the Social Sciences (SPSS), version 20 (Field, 2013; Pallant, 2020). This analytical approach was applied to examine the bio-data of respondents, the responses retrieved from the administered questionnaires, and the data relevant to the proposed framework of the study. OLS regression is widely regarded for its simplicity and efficiency in estimating relationships between dependent and independent variables under the classical assumptions (Gujarati & Porter, 2009). Furthermore, the decision criterion for interpreting responses was based on a four-point Likert scale, structured as follows: 4 = Strongly Agree, 3 = Agree, 2 = Disagree, and 1 = Strongly Disagree. The midpoint of the scale was calculated by summing the numerical values (4 + 3 + 2 + 1 = 10) and dividing by the number of response categories (4), yielding a threshold of 2.5. (Boone & Boone, 2012; Joshi et al., 2015). Thus, a mean score of 2.5 or higher indicates agreement with the statement, while a score below 2.5 indicates disagreement. To empirically examine the

relationship between financial governance and the selected components of the Government Integrated Financial Management Information System (GIFMIS), the following multiple regression model was adopted and specified thus:

FG = f(BPM, BEM, HRM, AM, MDM, RM)
The functional relationship was further transformed into a linear econometric form as:

$FG=\beta_0+\beta_1BPM+\beta_2BEM+\beta_3HRM+\beta_4AM+\beta_5MDM+\beta_6RM+\varepsilon$

Where:

FG = Financial Governance (dependent variable)
BPM = Budget Preparation Module
BEM = Budget Execution Module
HRM = Human Resource Management
AM = Accounting Module
MDM = Management Decision Module
RM = Reporting Module
$\beta 0$ = constant
$\beta 1, \beta 2, \beta 3, \beta 4, \beta 5, \beta 6$ = representing regression coefficients
ε= Error term
Apriori sign: $\beta 1<0, \beta 2 < 0, \beta 3 < 0, \beta 4 < 0, \beta 5 < 0, \beta 6 < 0$

4.0 Results and Discussion

The table below shows the descriptive statistics of the data which includes dependent and independent variables of the study.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
BPMS	140	.47	1.39	1.1065	.25293
BEMS	140	.18	1.39	1.1314	.26740
HRMS	140	.18	1.39	1.1343	.24817
AMS	140	.47	1.39	.9827	.33116
MDMS	140	.69	1.39	1.0675	.17094
RMS	140	.34	1.39	1.1724	.24266
FGS	140	.45	1.39	1.1796	.23521
Valid N (listwise)	140				

Source: Output of SPSS Descriptive Result

The table 4.1 above presents the descriptive statistics for six independent variables—BPMS, BEMS, HRMS, AMS, MDMS, RMS—and the dependent variable FGGS, based on responses from 140 participants. The mean values show that the Reporting Module (RMS) recorded the highest average rating of 1.1724 with 0.34 and 1.39 as minimum and maximum respectively, closely followed by the Financial Governance (FGGS) at 1.1796, indicating strong perceived effectiveness in these areas. In contrast, the Accounting Module (AMS) had the lowest mean of 0.9827, suggesting relatively lower agreement or performance among respondents in MDAs. The standard deviation values reflect the variability of responses. The use of AMS (Accounting Modules) had the highest variability in MDAs (SD = 0.33116) with 0.47 and 1.39 as minimum and maximum respectively, indicating diverse opinions among respondents. MDMS (Master Data Module) had the lowest variability (SD = 0.17094), implying more consistent responses. Minimum and maximum scores across variables range from 0.18 to 1.39, demonstrating a full spread of responses. The sample size was consistent across all variables, with 140 valid responses recorded. All variables have mean scores well above 1.0 (on a scale likely capped at 1.39), showing overall positive perceptions exception of AMS with lowest average and the widest range in responses, indicating diverse views among MDAs, due to role based task performed.

Correlation Result

The Pearson correlation analysis between Financial Governance (FGGS) and the independent variables of GIFMIS provides insight into the direction and strength of their relationships. The correlation (r) that explains the direction of predictor variables is outline below. It does not state the volume of influence or effect, but gives only the directional position of the variables in the model.

Table 4.2 Correlations

	FGS	BPMS	BEMS	HRMS	AMS	MDMS	RMS
FGS	1.000						
BPMS	.385	1.000					
BEMS	.397	.577	1.000				
HRMS	.063	.201	.588	1.000			
AMS	.088	.236	.209	.165	1.000		
MDMS	.073	.227	.210	.294	.192	1.000	
RMS	.285	.521	.691	.722	.081	.208	1.000

Source: SPSS Output of Reliability Result

From Table 4.3.1 above, BEMS and BPMS were found to be moderately positive and statistically. Thus, BEMS (r = .397) and BPMS (r = .385) exhibit moderate positive correlations with FGS, suggesting that improvements in budget execution and preparation modules are moderately associated with better financial governance outcomes; whereas RMS (r = .285) shows a weaker but still positive relationship with FGS, indicating a meaningful contribution of the reporting module to financial governance. Moreso, the relationships between FGS and AMS (r = .088), HRMS (r = .063), and MDMS (r = .073) was found to be high and positive, suggesting a greater linear association. Overall, the results highlight BEMS and BPMS as the most influential predictors in terms of their bivariate relationship with financial governance. These findings support their inclusion and examination in the regression model to assess their net effects.

Table 4.3: Coefficients

Predictor Variable	t-value	p-value (Sig.)
(Constant)	5.716	.000
BPMS	1.143	.255
BEMS	3.215	.002
HRMS	-2.619	.010
AMS	0.190	.850
MDMS	0.243	.808
RMS	1.385	.168

**Correlation is significant at the *0.01 & **0.05 (2-tailed).

Source: SPSS Output of Reliability Result

From Table 4.3.2 above, the Budget Execution Module (BEMS) was found to have a positive and significant effect on financial governance ($p < 0.002$), indicating that improvements in budget execution practices contribute significantly to enhancing financial oversight and control. The Human Resource Module (HRMS), although also significant ($p < 0.010$), showed a negative coefficient, suggesting that inefficiencies or issues in HR-related processes might be adversely impacting financial governance outcomes. This calls for closer evaluation of how HRMS functions are integrated within GIFMIS and their actual influence on transparency and accountability.

Regression Results

The multiple regression result for Financial Governance data is presented in table 4.5.1, 4.5.2 and 4.5.3 below:

Table 4.4.1 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.485[a]	.236	.201	.21024	.236	6.831	6	133	.000	.636
a. Predictors: (Constant), RMS, AMS, MDMS, BPMS, BEMS, HRMS										
b. Dependent Variable: FGS										

Table 4.4.2 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.812	6	.302	6.831	.000[b]
	Residual	5.879	133	.044		
	Total	7.690	139			

a. Dependent Variable: FGS

b. Predictors: (Constant), RMS, AMS, MDMS, BPMS, BEMS, HRMS

The model as a whole was significant to predict Financial Governance F(6,139) = 6.831. p<0.000 as shown by the Anova Table 4.4.2 above. The R^2 for the overall model as presented in Table 4.2.1 above was 23.6%, that is 24% (approx.), with an adjusted R^2 of 20% which shows a medium size effect is reported by the model of variation. This indicates that 24% of the proportion of variability in the dependent variable as predicted by the statistical model is explained by the independent variables in the model. Therefore, 24% increase in Financial Governance is influenced by the linear combination of the predictor variables (RMS, AMS, MDMS, BPMS, BEMS, HRMS). Furthermore, the F-ratio of 6.831 is calculated as the ratio of the mean regression sum of squares (0.302) to the mean residual sum of squares (0.044). This F-value is statistically significant at the $p < .001$ level, affirming that the regression model provides a better fit to the data than a model with no predictors. This finding reinforces the conclusion that the predictors as a group significantly contribute to explaining the variation in financial governance among the sampled MDAs.

Table 4.4 Coefficients[a]

Model		Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	.773	.135	5.716	.000		
	BPMS	.115	.100	1.143	.255	.493	2.028
	BEMS	.335	.104	3.215	.002	.409	2.443
	HRMS	-.316	.121	-2.619	.010	.354	2.827
	AMS	.011	.058	.190	.850	.874	1.144
	MDMS	.027	.113	.243	.808	.860	1.163
	RMS	.187	.135	1.385	.168	.296	3.380

a. Dependent Variable: Financial Governance_FGGS
Source: Output of SPSS Regression Result

Table 4.4.4 Test of Hypothesis / Summary of Findings

Hypotheses	Variable	Findings	Decision
H_o1:	The Budget Preparation Module (BPM) has no significant effect on financial governance in selected MDAs in Nigeria.	B = 0.115, p = .255 (Not Significant)	Fail to Reject
H_o2:	The Budget Execution Module (BEM) has no significant effect on financial go vernance in selected MDAs in Nigeria.	B = 0.335, p = .002 (Significant)	Reject
H_o3:	The Human Resource Module (HRM) has no significant effect on financial governance in selected MDAs in Nigeria.	B = -0.316, p = .010 (Significant)	Reject
H_o4:	The Account ing Module (AM) has no significant effect on financial governance in selected MDAs in Nigeria.	B = 0.011, p = .850 (Not Significant)	Fail to Reject
H_o5:	The Master Data Module (MDM) has no significant effect on financial governance in selected MDAs in Nigeria.	B = 0.027, p = .808 (Not Significant)	Fail to Reject
H_o6:	The Reporting Module (RM) has no significant effect on financial governance in selected MDAs in Nigeria.	B = 0.187, p = .168 (Not Significant)	Fail to Reject

Source: Researcher's Findings.

5.0 Conclusions and Recommendations

In line with the study's findings and the policy implications derived from the analysis, the study concludes as follows:

Among the components of GIFMIS, the Budget Execution Module (BEM) and Human Resource Management (HRM) module significantly influence financial governance in the selected MDAs. Specifically, BEM was found to positively contribute to enhancing financial governance, owing to its comprehensive functionalities such as

appropriation and warranting, AIE preparation, procurement and payables management, revenue and receivable management, cash management, as well as asset and inventory management. These functions make BEM the most widely used module across MDAs and central to operational accountability.

In contrast, the HRM module exhibited a negative significant influence on financial governance. This is largely attributed to its limited decentralization, which restricts full utilization by MDAs and hampers intended governance outcomes. These findings are consistent with the work of Ajayi (2020), who affirmed that efficient budget execution strengthens transparency and accountability, and Okoye & Ezejiofor (2019), who observed that inefficiencies in HR practices can undermine service delivery and governance effectiveness.

Other components namely the Budget Preparation Module (BPM), Accounting Module (AM), Master Data Module (MDM), and Reporting Module (RM) did not exhibit statistically significant effects on financial governance within the study's context. This suggests the need for enhanced implementation strategies, improved system integration, and capacity development to align these modules more effectively with governance objectives. Adebayo and Akinyele (2018) also emphasized the critical role of full integration and workforce training in maximizing the performance of underutilized GIFMIS components.

The findings of this study underscore the need for a comprehensive review and enhancement of various GIFMIS modules. Although modules such as the Budget Preparation Module (BPM), Accounting Module (AM), Master Data Module (MDM), and Reporting Modules (RM) did not demonstrate statistical significance, they remain integral to effective financial governance. Therefore, targeted interventions, improved system integration, and proactive stakeholder engagement are recommended to strengthen their overall impact.

Enhancing the functionalities of the BPM is vital for sustaining its positive influence. The government should ensure full integration of sub-functionalities, including personnel budgeting, donor fund management, and aid and grant tracking. In addition, continuous capacity development and real-time monitoring mechanisms should be institutionalized across Ministries, Departments, and Agencies (MDAs). Given the negative influence of the Human Resource Management (HRM) module observed in this study, immediate reforms are necessary. A decentralized approach and complete revamp of the module is recommended, with particular emphasis on the deployment of sub-functionalities such as payroll administration, recruitment processes, and user retraining within MDAs.

A holistic system evaluation should be conducted, encompassing regular system audits and performance assessments. This would facilitate an understanding of each module's contribution to overarching governance objectives, ensure data integrity, and identify gaps that may hinder effective coordination of the GIFMIS components. Policy oversight and institutional support are also critical. Government oversight agencies should strengthen regulatory frameworks and offer robust policy backing to drive the full implementation of all GIFMIS components.

Furthermore, to enhance accountability and transparency, institutions such as the Economic and Financial Crimes Commission (EFCC), the Independent Corrupt Practices and Other Related Offences Commission (ICPC), the Chartered Institute of Forensic and Fraud Investigators of Nigeria, and the Debt Management Office (DMO) should collaborate with the GIFMIS framework. Such partnerships would foster system efficiency, improve fiscal responsibility, and uphold public sector integrity. Finally, future research should explore the qualitative dimensions of GIFMIS implementation. These studies should examine institutional challenges and assess the long-term effects of the system on public service delivery and performance outcomes.

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