ACCOUNTING INFORMATION SYSTEM QUALITY AND FINANCIAL MANAGEMENT PRACTICES IN FEDERAL TERTIARY INSTITUTIONS IN ADAMAWA STATE

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Abstract

This study examines how the quality of Accounting Information Systems (AIS) affects financial management in federal tertiary institutions in Adamawa State, Nigeria. It draws on the DeLone and McLean Information Systems Success Model (2016), breaking AIS quality into four dimensions: system quality, information quality, process quality, and service quality. The research used a quantitative cross-sectional survey design. Primary data were generated from 145 purposively selected staff members at federal universities, polytechnics, and colleges of education, all of whom completed a structured questionnaire. The data were analysed using the Ordinary Least Squares (OLS) regression. All four AIS quality dimensions had a statistically significant influence on financial management. System quality had more significant effect followed by service, information, and process quality. The study recommends that federal tertiary institutions invest significant funds in reliable, user-friendly AIS infrastructure. Staff need proper training to get financial data entry right and process automation is necessary in making financial reporting more consistent. Furthermore, technical support needs to be responsive enough to actually solve problems when they come up. The findings add to a growing body of literature on information systems and public-sector financial *management, offering lessons particularly relevant to higher education institutions in developing economies.*

Keywords: Financial management, system quality, information quality, process quality, services quality, federal tertiary institutions.

1. Introduction

Financial management remains a critical determinant of organisational sustainability and success across sectors and regions worldwide. Nigeria presents a compelling case in the discourse on financial management within tertiary institutions. In Nigeria, federal tertiary institutions have long contended with financial mismanagement (Nwaiwu & Oluka, 2021). More recently, however, these institutions have adopted policies such as the Integrated Payroll and Personnel Information System (IPPIS) and the Government Integrated Financial Management Information System (GIFMIS) in order to curb resource mismanagement and increase transparency (Olabode & Adetoro, 2023). The results, however, have been uneven. While improvements in payroll management and budget tracking have been recorded, notable gaps persist in user satisfaction, system quality, and information quality (Abutu et al., 2019; Omohwovo et al., 2021). These gaps raise concerns about the effectiveness of AIS frameworks in strengthening financial management, particularly in tertiary institutions in Adamawa State, Nigeria.

Achieving sound financial management in tertiary institutions is a necessary matter beyond operational sustainability. This is because financial management shapes academic excellence and contributes to national development. A huge amount of public funds goes through the federal universities and polytechnics in Nigeria. It is expected that tertiary institutions must manage public funds responsibly in order to fulfil their core mandates (Mabera, 2020). To do that, they must practice prudent budgeting, maintain transparent expenditure tracking, and provide timely financial reporting. Yet irregular funding, bureaucratic bottlenecks, and weak internal controls routinely undermine these goals (Ajah & Chigozie-Okwum, 2019). A good AIS structure is necessary for tackling these problems. This is because it helps automate financial processes, reduce human error, and strengthen data integrity. The capacity of AIS to genuinely improve financial management depends on system quality, the relevance and reliability of the information it produces, the efficiency of the financial processes it supports, and the responsiveness of its service infrastructure (Onaolapo & Olanrewaju, 2024).

Accounting information systems are integrated frameworks designed to collect, process, and report financial data in support of managerial and operational decision-making. Within tertiary institutions, it provides a structured platform for managing funds and monitoring expenditures. It is also directly responsible for producing financial statements that meet regulatory requirements. The quality of institutional decision-making is contingent of the accuracy and timeliness of the information that the AIS generate.

The role of AIS in modern financial management is well established: they automate routine tasks, enable real-time reporting, and strengthen internal control mechanisms (Gunawan & Nengzih, 2023). Ogohi and Victor (2019) and Khan (2021) both found that AIS adoption yields measurable gains in financial performance and operational efficiency, provided the system is well-designed, user-friendly, and supported by adequate management backing. In federal tertiary institutions across Adamawa State, strategic AIS deployment could realistically address persistent financial management failures that undermine institutional performance.

The financial mismanagement has led to delays in financial reporting, weak budgetary control, and recurring resource leakages, reflecting this reality. Despite the rollout of IPPIS and GIFMIS, financial mismanagement, payroll irregularities, and inefficient fund utilisation persist (Olabode & Adetoro, 2023). These persistent problems raise legitimate concerns about the functionality and effectiveness of existing AIS in delivering the financial management improvements they were designed to produce. Technology-driven solutions have been introduced, yet federal tertiary institutions in the state continue to struggle with financial control, transparency, and accountability.

Existing literature provides useful insights into how AIS shapes organisational performance, though significant gaps remain, specifically concerning federal tertiary institutions in Nigeria. Studies on AIS in Nigerian tertiary institutions have concentrated heavily on southern regions, leaving institutions in the northeast, including those in Adamawa State, largely underexplored (Abutu et al., 2019; Omohwovo et al., 2021). Few studies have assessed the combined and individual effects of system, information, process, and service quality on financial management in the education sector. While the broader relationship between AIS and organisational performance is well documented (Ogohi & Victor, 2019; Khan, 2021), direct empirical links between specific AIS components and financial management outcomes in tertiary institutions remain limited. This study addresses these gaps by providing empirical evidence that is region-specific, variable-focused, and theoretically grounded.

Accordingly, this study examines the effect of AIS quality dimensions, namely system quality, information quality, process quality, and service quality, on financial management in federal tertiary institutions in Adamawa State, Nigeria. The scope covers federal universities and polytechnics within the state, given their role in administering public funds and their adoption of government-mandated systems such as IPPIS and GIFMIS. The study focuses on financial management dimensions such as budgeting, expenditure tracking, internal controls, and financial reporting as shaped by the identified AIS components.

The data were collected in November, 2025, which defines the study's temporal scope. The target respondents include finance officers, internal auditors, bursary staff, and AIS users who engage directly with financial processes. The geographical scope is restricted to Adamawa State, whose distinct socio-economic and infrastructural conditions may produce AIS implementation outcomes that differ meaningfully from those observed elsewhere in Nigeria.

2. Literature Review and Hypotheses Development

Financial Management

Financial management sits at the heart of organisational governance, covering the strategies and processes involved in planning, controlling, and monitoring financial resources to achieve institutional goals. Mang'ana et al. (2024) describe it as the set of practices and decisions that guide optimal fund utilisation, ensuring both sustainability and value creation. Within federal tertiary institutions, financial management extends well beyond routine bookkeeping. It encompasses strategic budgeting, resource allocation, expenditure monitoring, internal control, and the preparation of statutory financial reports. These institutions must maintain fiscal discipline while simultaneously delivering on their academic and developmental mandates. Mabera (2020) makes the point plainly: effective financial management in tertiary institutions is indispensable for preventing wastage, fraud, and fund misappropriation, all of which erode institutional credibility and performance when left unchecked.

System Quality

System quality is one of the most consequential factors in determining whether an accounting information system succeeds or falls short. It captures the technical attributes that make an information system reliable, sound, and genuinely usable. DeLone and McLean (2016) describe it as the degree to which a system is technically robust, flexible, and easy to navigate, enabling productive interaction between users and the system itself. Gunawan and Nengzih (2023) examined how system quality, information quality, and security shaped user satisfaction with SAP S4/Hana at PT Hakaaston in Indonesia. Their findings showed that system quality produced measurable gains in user satisfaction, enabling smoother financial operations and more reliable reporting.

Fitriati et al. (2020) looked at AIS success and its effect on accounting information quality within village credit institutions in Indonesia. Using SEM-PLS on responses from accounting personnel, they found that system quality significantly influenced the accuracy and timeliness of financial information, which in turn strengthened financial management practices. Putra et al. (2020) examined system quality and user satisfaction within village credit institutions in Denpasar City, Indonesia. SEM analysis confirmed that system quality had a significant positive effect on user satisfaction, translating into better financial reporting and control outcomes. Muda et al. (2020) investigated AIS adoption in Indonesian local government banks, focusing on user satisfaction and financial reporting reliability. Regression analysis showed that system quality was central to system acceptance, which supported accurate and timely financial reports essential for sound financial management. On this basis, the study hypothesised that:

H1: System quality has a significant positive effect on the financial management of federal tertiary institutions in Adamawa State.

Information Quality

Information quality is another defining dimension of AIS success. It describes the characteristics of system outputs, particularly their usefulness for decision-making purposes. DeLone and McLean (2016) define it as the degree to which a system produces information that is accurate, complete, timely, and relevant to user needs. Normelindasari and Solichin (2019) investigated information quality within student web applications at Budi Luhur University, Indonesia, exploring its contribution to user satisfaction. Regression analysis confirmed that information quality substantially improved satisfaction with system services. Pratiwi and Mujadilah (2021) looked at how information quality affected user satisfaction in mobile banking applications in Indonesia. Applying regression analysis, they found that information quality positively influenced both user satisfaction and secure financial transactions. The study, however, did not address the broader AIS environment or the financial management practices of educational institutions. Iskandar (2015) examined AIS success factors in Indonesian manufacturing firms, using SEM to demonstrate that information quality significantly influenced system success and indirectly supported financial management by strengthening data integrity. The private sector orientation of that study, though, limits how directly its findings apply to public tertiary institutions. This leads to the second hypothesis:

H2: Information quality has a significant positive effect on the financial management of federal tertiary institutions in Adamawa State.

Process Quality

Process quality is a defining component of accounting information systems, reflecting how well system processes are designed and executed in pursuit of organisational goals. Gunawan and Nengzih (2023) define it as the degree to which system workflows and procedures are streamlined, logical, and capable of meeting both operational and strategic organisational needs. Daryanto (2022) investigated how process quality, alongside system quality and information quality, influenced user satisfaction in the personnel information systems of the Indonesian Army Crypto and Cyber Centre. Using SEM on data from military personnel handling sensitive records, the study found that strong process quality substantially improved user satisfaction, which in turn supported accurate personnel records and the administrative controls necessary for budget planning. Lestari et al. (2023) examined how process quality shaped user satisfaction with finance management system applications in Indonesian local government offices. Regression analysis of survey data from finance officers showed that strong process quality drove satisfaction and supported timely budget execution and financial reporting.

Manuari and Putra (2023) addressed process quality indirectly within their study on information quality and service quality in AIS for Indonesian public sector entities. Using SEM, they found that clear, logical system processes reduced errors and strengthened user confidence, enabling smoother financial operations. Process quality was not, however, treated as a standalone construct, and financial management was inferred rather than directly measured. Meiryani (2023) explored how process quality, system quality, and information quality influenced accounting information quality in higher education institutions in Bandung, Indonesia. SEM results showed that process quality was central to ensuring financial data was processed accurately and on schedule, which improved reporting practices. Pratiwi et al. (2020) examined transaction processing system optimisation in Indonesian minimarkets. Though outside a tertiary institution context, the study showed that strong process quality improved transaction accuracy and inventory control, indirectly reinforcing financial integrity.

H3: Process quality has a significant positive effect on the financial management of federal tertiary institutions in Adamawa State.

Service Quality

Service quality addresses the support dimension of accounting information systems, focusing specifically on the assistance provided to system users. Putra et al. (2020) define it in the AIS context as the capacity of support personnel to deliver timely assistance, resolve user problems, and maintain consistent system availability. Manuari and Putra (2023) examined service quality and information quality in relation to user satisfaction in AIS for Indonesian public sector entities. SEM analysis showed that service quality strengthened user satisfaction and confidence in financial data, indirectly producing better financial management outcomes. Pratiwi and Mujadilah (2021) studied service quality within mobile banking applications in Indonesia. Regression analysis confirmed that service quality significantly affected both user satisfaction and secure transaction processing. The mobile application focus, however, means the study did not engage with the broader AIS service support environment characteristic of tertiary institutions.

Triantono et al. (2021) investigated service quality in public sector information systems at the National Narcotics Agency in Indonesia. SEM analysis revealed that service quality shaped user satisfaction and confidence in system outputs. While this confirms the relevance of service quality in public sector systems, the study did not directly examine financial management processes. Oweis (2022) looked at how AIS-related service quality influenced customer satisfaction in Saudi commercial banks. Regression analysis showed that strong service quality improved satisfaction, which supported more accurate financial reporting. The banking context and customer orientation, however, differ considerably from the internal financial management processes of tertiary institutions. There is a study of service quality within management information systems and its effect on e-marketing efficiency in Jordanian telecommunications organisations. SEM analysis found that service quality strengthened system usage and supported strategic outcomes. Drawing on this body of evidence, the study states the following hypothesis:

H4: Service quality has a significant positive effect on the financial management of federal tertiary institutions in Adamawa State.

The DeLone and McLean Information Systems Success Model, first proposed in 1992 and subsequently refined in 2003 and 2016, remains one of the most widely accepted frameworks for evaluating information system performance and effectiveness. It identifies six dimensions that define IS success: system quality, information quality, service quality, use, user satisfaction, and net benefits. System quality, information quality, and service quality represent the core system attributes that drive outcomes. These dimensions shape the degree to which users engage with the system and how satisfied they are with it. Collectively, they contribute to net benefits, which in this study translate into improved financial management outcomes including transparency, timely reporting, accurate budgeting, and effective expenditure control.

3. Data and Methods

This study adopts a survey research design to examine the effect of accounting information systems (AIS) on the financial management of federal tertiary institutions in Adamawa State, Nigeria. The target population for this study is Bursary, Audit, ICT, Establishment, Procurement staff of Modibbo Adama University Yola, Federal College of Education Yola and Federal Polytechnic Mubi in Adamawa State who provide the researcher with the necessary information required for the research questions. Base on the information obtain from the staff under this research. The researcher was able to obtain that one hundred and fifty-eight (158) Users of GIFMIS and REMITA constitute the number of staff Users in the Federal Tertiary Institution in Adamawa state. The entire population of 158 staff serve as sample size using census sampling technique as the number is small enough to be considered entirely.

Table 1: Population and Sample

S/N	Institutions	Staff
1	Modibbo Adama University, Yola	64
2	Federal College of Education, Yola	43
3	Federal Polytechnic Mubi	51
4	**Total**	**158**

Source: The Authors (2026)

The primary source of data for this study is original data collected directly from respondents who are knowledgeable about the use of accounting information systems (AIS) and financial management practices within federal tertiary institutions in Adamawa State. These respondents include finance officers, bursary department staff, internal auditors, and other personnel who interact regularly with AIS in the course of managing institutional finances.

The primary instrument for data collection in this study is a structured questionnaire, designed to obtain quantifiable data on the effect of accounting information systems (AIS) components on financial management in federal tertiary institutions in Adamawa State. The development of the questionnaire was guided by the conceptual and Empirical review of the study, as well as by established instruments used in prior AIS and financial management research. Items were adapted from validated scales in relevant literature to ensure that they accurately reflect the constructs of system quality, information quality, process quality, service quality, and financial management. For example, the measures of AIS quality components were informed by instruments used in studies such as DeLone and McLean (2016), Gunawan and Nengzih (2023), Fitriati et al. (2020), and Muda et al. (2020), which have been applied successfully in similar organisational contexts.

The questionnaire consists of several sections. The first section collects demographic information such as respondent's role, years of experience, and institution type. Subsequent sections contain items relating to each of the independent variables, system quality, information quality, process quality, and service quality, as well as the dependent variable, financial management. Each section includes multiple statements designed to capture the respondent's perceptions and experiences on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The instruments were subjected to face and content validity checks by experts in accounting, information systems, and educational management to ensure clarity, relevance, and appropriateness. The study conducted a pilot study on a sample of 35 respondents in order to determine the reliability of the instruments. The pilot test returned a Cronbach Alpha above 0.70, indicating that the instruments are reliable.

The primary technique of analysis for this study is multiple regression, which was used to examine the effect of accounting information system (AIS) components on financial management in federal tertiary institutions in Adamawa State. Regressions is used to test the hypotheses at 5%/0.05 level of significance. The regression analysis was executed using the Statistical Package for Social Sciences (SPSS) version 22. To achieve the objectives of this study, the following statistical model for this study was utilized.

$$Fin\_M_i = \alpha_0 + \beta_1 Sys\_Q_i + \beta_2 Inf\_Q_i + \beta_3 Pro\_Q_i + \beta_4 Ser\_Q_i + \varepsilon_i$$

Where:
Fin_M = Financial Management
Sys_Q = System Quality
Inf_Q_i = Information Quality
Pro_Q = Process Quality
Ser_Q = Service Quality
ε = Error term
α = Constant
Table 2 below presents the measurement of variables

Table 2: Measurement of Variables

Variable	Description of Measurement Focus	Source
Financial Management	Assesses how the AIS supports accurate reporting, budgeting efficiency, internal control, timely decisions, and financial accountability.	Gunawan and Nengzih (2023)
System Quality	Measures perceptions of system usability, user-friendliness, reliability, responsiveness, and integration across departments.	Fitriati et al. (2020),
Information Quality	Evaluates the accuracy, timeliness, completeness,	Muda et al. (2020)

Variable	Description of Measurement Focus	Source
	relevance, and consistency of AIS-generated information.	
Process Quality	Captures efficiency of transaction processing, clarity of system procedures, reduction in manual processes, error minimization, and compliance support.	Manuari and Putra (2023)
Service Quality	Assesses availability and competence of technical support, effectiveness in resolving system issues, adequacy of user training, and reliability of support services.	Gunawan and Nengzih (2023)

Source: Authors' Analysis from various literature (2026)

4. Discussion of Results

This section presents the study results, including the demographic profile of respondents, descriptive analysis, correlation analysis, diagnostic tests and regression result. The section also presents the test of hypotheses and the discussion of major findings. Analysis of the demographic profile of respondents were not presented for brevity.

Table 3: Analysis of Questionnaires Distributed to Respondent

S/N	Questionnaires Analysis	Number	Percentage (%)
1	Questionnaires Distributed	158	100
2	Returned Questionnaires	149	94.3
3	Unused Questionnaires	4	2.5
4	Used Questionnaires	145	91.7
5	Respondent Response Rate	0.94	94.0
6	Percentage of Used Questionnaires	0.917	91.7

Source: Authors' Analysis 2026

A total of 158 questionnaires were distributed to respondents for the study. Out of these, 149 were successfully returned, representing a high response rate of 94%. However, 4 of the returned questionnaires were found to be unusable, leaving 145 valid questionnaires for analysis. This accounts for 91.7% of the total distributed questionnaires. The high response rate and large proportion of usable questionnaires provide a reliable basis for the analysis and strengthen the validity of the research findings.

To assess the internal consistency of the measurement instrument used in this study, a reliability test was conducted using Cronbach's Alpha (α). A Cronbach's alpha value of 0.70 and above is generally considered acceptable for demonstrating good internal consistency. The results of the reliability test are presented in Table 4.

Table 4. Cronbach Alpha Reliability Test

Variable	Average Item Covariance	Scale Reliability Coefficient
Fin.M	0.727	0.854
Sys_Q	0.672	0.870
INF_Q	1.310	0.986

PRO_Q	1.224	0.930
SER_Q	0.984	0.867

Source: Author’s Analysis (2026)

From Table 4, all the five constructs surpassed the recommended minimum threshold of 0.70, with values ranging from 0.854 to 0.986, thereby confirming the reliability of the instrument. These results validate the use of the questionnaire items for further statistical analysis, including regression modelling, and confirm that the study’s measurement scales are both robust and dependable.

Descriptive Statistics

The descriptive statistics summarized the central tendency and variability of the responses related to each variable using mean and standard deviation. This is useful in understanding the basic characteristics of the data. Table 5 below provides the summary statistics of the variables.

Table 5: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
FIN_M	145	3.582	0.839	2	5
SYS_Q	145	3.595	1.135	2	5
INF_Q	145	3.519	1.133	2	5
PRO_Q	145	3.696	1.160	2	5
SER_Q	145	3.538	1.115	2	5

Source: Author’s Analysis (2026)

From Table 5, financial management (FIN_M), has a mean of 3.582 and a standard deviation of 0.839. This suggests that, on average, respondents agreed that the use of AIS contributes positively to budgeting, internal control, reporting accuracy, and financial decision-making within their institutions. System quality (SYS_Q) had a mean score of 3.595 and a standard deviation of 1.135. This implies a generally favourable assessment of the technical features of the AIS, including system reliability, interface design, response time, and usability.

Information quality (INF_Q) has a mean of 3.519 and a standard deviation of 1.133. This means that respondents agreed moderately that the AIS generates timely, accurate, complete, and relevant financial data. Process quality (PRO_Q) reveals a mean score of 3.696 and a standard deviation of 1.160, indicating a strong perception that AIS facilitates efficient financial processes. Service quality (SER_Q) has an average response of 3.538 and a standard deviation of 1.115, reflecting that respondents agree that user support services are satisfactory. The relatively high dispersion of responses points to uneven experiences among institutions.

Correlation Analysis

The correlation analysis was conducted to examine the strength and direction of the relationship between the dependent variable (financial management) and the independent variable (accounting information system quality).

Table 6: Correlation Analysis

Variable	FIN_M	SYS_Q	INF_Q	PRO_Q	SER_Q

FIN_M	1.0000				
SYS_Q	0.4101	1.0000			
INF_Q	0.3436	-0.0039	1.0000		
PRO_Q	0.3596	0.0220	-0.0295	1.0000	
SER_Q	0.3712	-0.0482	0.0297	0.1419	1.0000

Source: Author's Analysis (2025)

The results from Table 6 reveal that all the four independent variables are positively correlated with financial management. System quality (SYS_Q) showed the strongest positive correlation with FIN_M at r = 0.4101, indicating a moderate relationship. Service quality (SER_Q) also demonstrated a positive correlation with FIN_M at r = 0.3712. This implies that institutions where users receive effective support, such as technical assistance, training, and maintenance, tend to perform better in terms of financial management. Likewise, process quality (PRO_Q) and information quality (INF_Q) had correlations of 0.3596 and 0.3436 respectively. These figures show that streamlined workflows and the availability of accurate, timely, and relevant information contribute to financial control and accountability within institutions. Interestingly, the intercorrelations among the independent variables themselves were very low. For example, SYS_Q and INF_Q had a negligible correlation of -0.0039, while SYS_Q and PRO_Q showed 0.0220. These low values suggest minimal multicollinearity, meaning the independent variables are sufficiently distinct and are likely measuring different dimensions of AIS performance.

Multiple Regression

The Ordinary Least Squares (OLS) regression was conducted to determine the effect of the four dimensions of accounting information systems quality on financial management (FIN_M) in federal tertiary institutions in Adamawa State. Table 7 below provides the OLS regression results.

Table 7: OLS Regression

Variable	Coef.	Std. Err.	T	P>t
SYS_Q	0.311	0.041	7.57	0.000
INF_Q	0.255	0.041	6.20	0.000
PRO_Q	0.226	0.041	5.57	0.000
SER_Q	0.253	0.042	6.00	0.000
CONS	-0.165	0.2901	-0.57	0.570
R-Squared		0.5285		
Adj R-Squared		0.5161		
F.		42.87		
Prob		0.0000		

Source: Author's Analysis (2026)

The coefficient of determination (R-squared) indicates that about 52.85% of the variation in financial management practices is explained by the independent variables. The F. value of 42.87 (p-value of 0.0000), indicates that the model is well fitted. Regarding the independent variables, a significant positive effect on financial management is observed. This means that the study accepts all the four alternate hypotheses. The results suggest that AIS quality (system, information, process, and service) have significant positive effect on financial management.

System Quality (SYS_Q) returns a positive and significant effect on financial management ($\beta = 0.311$, $p = 0.000$). The finding of a positive and significant effect on financial management aligns with several prior studies. For instance, Gunawan and Nengzih (2023) found that improved system quality enhances user satisfaction and facilitates smoother financial operations, while Fitriati et al. (2020) demonstrated that system quality significantly improves the accuracy and timeliness of accounting information, thereby strengthening financial management practices. Similarly, Muda et al. (2020) reported that robust system quality enhances system acceptance and supports reliable financial reporting in public sector banks. The present study extends these findings to the context of Nigerian federal tertiary institutions, confirming that reliable, flexible, and user-friendly systems are critical for effective budgeting, reporting, and financial control. However, unlike some earlier studies that emphasize indirect effects through user satisfaction, this study establishes a direct linkage between system quality and financial management outcomes, thereby contributing additional empirical clarity.

Information quality (INF_Q) shows a coefficient of 0.255, a t-value of 6.20 and a p-value of 0.000. This indicates that a one-unit increase in system quality, all things being equal, will lead to a 0.311 increase in financial management scores. The finding informs the critical role that a reliable and user-friendly AIS play in effective budgeting, control, and financial reporting. This result is consistent with extant literature. Studies such as Normelindasari and Solichin (2019) and Pratiwi and Mujadilah (2021) reported that high-quality information enhances user satisfaction and supports better decision-making processes. Iskandar (2015) further showed that information quality contributes to AIS success and financial management by ensuring data integrity. The current study corroborates these findings by demonstrating that accurate, timely, and relevant financial information significantly improves financial management practices in tertiary institutions. Nonetheless, a point of divergence lies in the study's sectoral focus; while most prior research was conducted in private or digital banking contexts, this study provides evidence from public educational institutions, thereby enhancing the generalisability of the AIS-information quality relationship.

Process quality (PRO_Q) returns a significant positive effect, with a coefficient of 0.226, a t-value of 5.57 (p-value 0.000). The result demonstrates that positive role of efficient, logical, and automated processes in financial operations. Streamlined processes likely reduce errors, promote compliance, and enable more transparent handling of transactions. The positive influence of process quality on financial management is equally supported by previous empirical works. Daryanto (2022) and Lestari et al. (2023) found that well-structured system processes improve user satisfaction and facilitate efficient financial operations such as budgeting and reporting. Meiryani (2023) also emphasized that process quality ensures accurate and timely processing of financial data, which is essential for effective reporting practices.

Service quality (SER_Q) has a coefficient of 0.253, a t-value of 6.00 and a p-value of 0.000. These results indicate that support services such as ICT assistance and training positively impact financial management outcomes. This result highlights the importance of continuous technical support and user empowerment in maximising the benefits of AIS. The result is consistent with prior studies such as Manuari and Putra (2023) and Triantono et al. (2021), who reported that service quality improves user confidence and satisfaction with system outputs. Similarly, Oweis (2022) found that effective service support enhances the reliability of financial reporting. Thus, the present study confirms that timely technical support, responsiveness, and system reliability contribute directly to improved financial management practices in federal tertiary institutions. In contrast to some previous studies that focus on customer-facing environments such as banking and telecommunications, this study emphasizes internal service support within institutional AIS environments, thereby providing context-specific insights relevant to the public education sector.

5. Conclusions and Recommendations

The study concludes that Accounting Information System (AIS) quality plays a significant and positive role in enhancing financial management practices in federal tertiary institutions in Adamawa State. The findings demonstrate that when AIS platforms are technically robust, produce accurate and timely information, operate through well-structured processes, and are supported by efficient service mechanisms, institutions experience improved financial reporting, budgeting accuracy, transparency, and expenditure control. These results reinforce the relevance of the DeLone and McLean Information Systems Success Model, confirming that high-quality system attributes translate into tangible organisational benefits. Overall, the study highlights that strengthening AIS quality is not merely a technical requirement but a strategic imperative for improving financial accountability and operational efficiency in public tertiary institutions. Based on the findings in this study and the conclusions thereof, the study recommends that:

i. Management of federal tertiary institutions, in collaboration with government agencies such as the Federal Ministry of Education, should invest in upgrading AIS infrastructure to ensure high system quality, including reliability, flexibility, and user-friendliness.
ii. Institutions should establish strong data management and validation frameworks to improve information quality, ensuring that financial data generated is accurate, timely, and relevant for effective decision-making.
iii. Regular training programs should be organised for finance and administrative staff, while dedicated IT support units should be strengthened to enhance process and service quality, ensuring efficient system usage and prompt resolution of technical issues.

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