

Mediating Effect of Organizational Commitment on The Relationship Between Human Resources Information System Evaluation and Organizational Performance in Public Tertiary Institutions in North East Nigeria

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Abstract

This study examined the effect of Human Resource Information System (HRIS) evaluation on organizational performance, with organizational commitment as a mediating variable in selected public tertiary institutions in North-East Nigeria. The study adopted a descriptive survey research design with a cross-sectional approach. The population comprised 12,043 non-academic staff of four selected federal universities: Abubakar Tafawa Balewa University, University of Maiduguri, Modibbo Adama University, and Federal University Wukari. Using Yamane's formula and an additional allowance for possible response errors, 464 questionnaires were distributed, 455 were retrieved, and 450 valid responses were retained for analysis. Data were collected through an adapted structured questionnaire and analysed using SPSS 29 and Partial Least Squares Structural Equation Modelling (PLS-SEM). The measurement model demonstrated satisfactory reliability and validity, while the structural model showed that HRIS evaluation explained 31.34% of the variance in organizational commitment and, together with organizational commitment, explained 65.71% of the variance in organizational performance. The findings indicated that HRIS evaluation significantly affects organizational commitment and organizational performance. Organizational commitment also significantly influences organizational performance and partially mediates the relationship between HRIS evaluation and organizational performance. The study concluded that effective HRIS, particularly reliable, accessible, flexible, secure, and user-friendly systems, can improve institutional performance directly and indirectly by strengthening employees' commitment. It recommended that tertiary institutions align HRIS development with institutional needs, provide adequate management support, and continuously improve system implementation, training, and resource allocation.

Keywords: Human Resource Information System; Commitment; Performance; Evaluation; Tertiary Institutions.

Introduction

In today's fast-paced business world, companies are facing a whirlwind of changes, from rapid technological advancements and globalization to a diverse workforce and intense competition

(Yona et al., 2024). To stay ahead and foster sustainable growth, organizations need to keep fine-tuning their operational efficiency, strategic decision-making, and how they manage their teams (Rondi et al., 2022). It's widely acknowledged that human resources are one of the most valuable assets any organization can have, and managing this resource effectively is key to reaching organizational goals. This is where technology comes into play, especially in human resource management. One of the standout innovations in this area is the Human Resource Information System (HRIS), which has revolutionized traditional HR tasks, making them more strategic and data-driven. So, what exactly is an HRIS? It's a systematic approach that merges information technology with human resource management to gather, store, manage, and analyse all sorts of employee-related data. HRIS covers a broad spectrum of HR activities, from recruitment and payroll to managing employee records, training and development, performance evaluations, benefits administration, and workforce planning by automating routine tasks and providing quick access to accurate information, HRIS boosts the efficiency and effectiveness of HR departments, empowering managers to make well-informed strategic choices. As a result, many organizations have embraced HRIS as a way to enhance productivity, cut operational costs, and bolster their competitive edge (Nyathi & Kekwaletswe, 2024).

Organizational performance is a key measure of how well an organization can reach its strategic goals and sustain itself over the long haul. It includes both financial and non-financial aspects like profitability, productivity, service quality, innovation, employee satisfaction, and customer retention (Doval, 2020). For years, both scholars and practitioners have been eager to uncover what drives better organizational performance. Lately, there's been a growing focus on technological capabilities, especially Human Resource Information Systems (HRIS), as a catalyst for improved outcomes. Research has shown that when HRIS is implemented effectively, it can streamline HR processes, enhance communication, support talent management, and offer data-driven insights that boost organizational performance. However, while the link between HRIS and organizational performance has been thoroughly explored, new evidence indicates that this relationship might not be as simple as it seems. Just having technological systems in place doesn't automatically lead to better performance; employees need to be engaged and aligned with the organization's goals. This underscores the need to look into the underlying mechanisms and intermediate factors that clarify how HRIS impacts performance outcomes (Bacha *et al.*, 2021).

The connection between HRIS and organisational commitment is especially important in today's workplaces. When companies implement HRIS, it can really shape how employees view their environment by boosting transparency, enhancing communication, ensuring fairness in HR practices, and making it easier to access information and resources (Petrova et al., 2020). When employees feel that the systems in place are efficient and supportive, they're more likely to feel valued and connected to the organisation. This sense of belonging can deepen their commitment, which ultimately leads to better organisational performance. So, organisational commitment might serve as a key link that explains how HRIS affects overall outcomes. The role of organisational commitment is rooted in the idea that organisational performance is not just about systems and processes; it is also heavily influenced by how employees feel and behave. While HRIS lays down the technological groundwork for effective human resource management, it's really the commitment of the employees that determines how well these systems work in practice. In simpler terms, HRIS can boost performance indirectly by nurturing a stronger commitment among employees, which in turn fuels productivity, innovation, and overall effectiveness. This viewpoint aligns nicely with strategic human resource management theories that highlight the interplay between technology and human capital in reaching organisational goals (Miller & Lee 2001).

The use of Human Resource Information Systems (HRIS) has become increasingly important in modern organisations because of their ability to improve employee data management, facilitate decision-making, and strengthen strategic human resource functions through technology. By automating routine administrative tasks, HRIS enables organisations to devote greater attention to strategic activities such as policy implementation, employee development, performance management, and the achievement of organisational goals. However, several public tertiary institutions in Nigeria, particularly those in the North-East, continue to face challenges in the partial or comprehensive adoption and effective utilisation of HRIS. A major concern is information quality, as HRIS in some institutions may fail to provide accurate, complete, timely, and relevant information required for effective decision-making. Consequently, some institutions continue to rely on traditional paper-based methods of record keeping and administrative procedures, resulting in incomplete employee records, inaccurate reports, and outdated documentation. Azemi et al. (2017) observed that existing frameworks for evaluating HRIS may not provide sufficiently robust approaches for assessing information quality. Information security is another significant challenge, as increasing reliance on electronic systems exposes institutions to risks such as unauthorised access, data breaches, and the disruption, alteration, or destruction of important records. Ma et al. (2016) identified information security as a major concern where digital records are inadequately protected. In addition, problems relating to system quality, including unreliable performance, limited flexibility, slow response time, poor system integration, software incompatibility, and technical failures, can restrict the effectiveness of HRIS. When HRIS does not adequately meet institutional requirements or integrate effectively with other organisational systems, its usefulness for human resource management and decision-making is reduced. These challenges can contribute to administrative inefficiencies, increased operational costs, poor service delivery, and reduced organisational effectiveness.

The consequences of these challenges are particularly important for public tertiary institutions, which face increasing pressure to reduce administrative costs, improve service delivery, enhance staff productivity, and achieve institutional objectives. Poor information quality, weak information security, and inadequate system quality can contribute to administrative delays, ineffective performance management, employee dissatisfaction, and organisational underperformance. Petrova et al. (2020) reported that weaknesses in information systems can be associated with financial losses, employee dissatisfaction, increased turnover, and declining organisational effectiveness. In public tertiary institutions in North-East Nigeria, such challenges may be reflected in low staff productivity, ineffective performance management practices, and difficulties in achieving organisational goals. Although Maamari and Osta (2021) established a positive relationship between HRIS and organisational performance, there remains limited empirical evidence on the mechanism through which HRIS evaluation influences organisational performance, particularly the mediating role of organisational commitment. To the best of the researcher's knowledge, limited attention has been given to this relationship within public tertiary institutions in North-East Nigeria. This represents an important empirical gap because the effectiveness of HRIS may depend not only on the quality and functionality of the system but also on the extent to which employees are committed to their organisations. Therefore, this study seeks to examine the mediating effect of organisational commitment on the relationship between HRIS evaluation and organisational performance in selected public tertiary institutions in North-East Nigeria.

The main objective of the study is to assess the effect of human resource information systems evaluation on organizational performance: mediating effect of organizational commitment in selected public tertiary institutions in North East, Nigeria. The specific objectives are to:

- i. determine the effect of human resource information system evaluation on

organizational performance in selected public tertiary institutions in North East, Nigeria;

- ii. examine the effect of organizational commitment in selected public tertiary institutions in North East, Nigeria;
- iii. assess the effect of organizational commitment on organizational performance in selected public tertiary institutions in North East, Nigeria; and
- iv. assess whether organizational commitment mediates in the relationship between HRIS evaluation and organizational performance in selected public tertiary institutions in North East, Nigeria.

The following are the hypotheses tested by the study:

H₀1: Human Resource Information System (HRIS) evaluation has no significant effect on organizational performance in selected public tertiary institutions in North-East Nigeria.

H₀2: Human Resource Information System (HRIS) evaluation has no significant effect on organizational commitment in selected public tertiary institutions in North-East Nigeria.

H₀3: Organizational commitment has no significant effect on organizational performance in selected public tertiary institutions in North-East Nigeria.

H₀4: Organizational commitment does not significantly mediate the relationship between Human Resource Information System (HRIS) evaluation and organizational performance in selected public tertiary institutions in North-East Nigeria.

Literature Review

Human Resources Management System (HRIS)

Human resource information systems (HRIS) play a leading role in computerized HR System. It also can be called as electronic human resources management (Nyathi & Kekwaletswe, 2023). The use of this system in the company is an innovation Ben Moussa and El Arbi (2020) sees HRIS as one of the company's strategies to continue to pursue excellence against its competitors and be ahead. HRIS serve as a multifaceted tool within organizations, facilitating the management of various HR functions efficiently and effectively (Yona et al., 2024). At its core, HRIS functions as a centralized repository for employee data, encompassing information such as personal details, employment history, performance evaluations, and training records. This centralized database enables HR professionals to streamline administrative tasks, including payroll processing, benefits administration, and compliance reporting (Chen & Cui, 2022). HRIS functions as a comprehensive system engineered to acquire, store, manipulate, analyse, and disseminate HR-related data within organizational contexts (Votto et al., 2021). It represents an integrated framework designed to consolidate and analyse data pertinent to an organization's HR operations, bridging the gap between HR functions and technological infrastructure, thereby facilitating streamlined HR practices (Sumaryati et al., 2020). This integration results in more efficient management and oversight of HR expenditures, replacing traditional manual methods of data aggregation and storage.

For the purpose of this study, the researcher defines Human Resource Information Systems (HRIS) as computerized and integrated human resource systems used by public tertiary institutions to collect, store, process, secure, and provide reliable employee information for effective human resource management and improved organizational performance. In this study, HRIS is measured in terms of system quality, information quality, and information security.

Organizational Commitment

The other most important variable of this research is organizational commitment. To fully understand the main theme of this research, it is unquestionably necessary to understand the concept organizational commitment. The concept organizational commitment has become

more popular in industrial and organizational psychology. O'Reilly (1989) describes organizational commitment "an individual's psychological bond to the organization, including a sense of job involvement, loyalty and belief in the values of the organization." Organizational commitment defined as psychological bond of the employee to the organization and the employee exert the maximum effort for the attainment of the organization goal and endorse the value of the organization. From the above definition organizational commitment can be understood as 'employee's acceptance of organizational goals and their willingness to exert effort on behalf of the organization' (Miller and Lee 2001). In the other spectrum, organizational commitment defined as 'the relative strength of an individual's identification with and involvement in an organization. For the purpose of this study, the researcher defines organizational commitment as the degree of psychological attachment, identification, loyalty, and willingness of employees in selected public tertiary institutions to accept organizational goals and values, exert considerable effort toward achieving institutional objectives, and maintain their membership in the institution. It reflects employees' emotional attachment to the institution, perceived obligation to remain, and willingness to continue working with the institution.

Organizational Performance

Organizational performance epitomizes a firm's holistic achievement of strategic objectives within the market domain (Bacha et al., 2021). Given the competitive landscape, contemporary enterprises necessitate robust strategies to navigate their organizational milieu effectively. The dynamic nature of policy formulation engenders fluctuations in the performance trajectories of numerous organizations over time (Shakil et al., 2021). Modern organizational management operates with strategic acumen to optimize performance outcomes. Within the banking sector, financial performance assumes paramount importance, wherein the provision of products and financial services to clientele is pivotal (Batrancea, 2021). Attaining a substantial market share and targeting pertinent demographics underscore the trajectory of organizational success (Shaba, 2021). Consequently, fostering a competitive market environment emerges as a strategic imperative to realize organizational objectives effectively. Organizational performance is based upon the idea that an organization is the voluntary association of productive assets, to achieve a shared purpose or objective (Rezaeegiglo, et al., 2014). Yeung and Brockbank, (2015) aver that operational performance tends to produce tangible, identifiable, and measurable results; therefore, IT/IS impact on operational performance can easily be measured. Performance measures can be taken from the outlook of information systems, information technology, and organization among others. The focus should be on if and how systems can be adopted, implemented, maintained, updated, and used. This is purely based on the perspective of information technology and systems.

For the purpose of this study, the researcher defines organizational performance as the extent to which selected public tertiary institutions effectively and efficiently utilize their human and technological resources to achieve established institutional goals and improve their overall operations. It reflects the ability of the institutions to enhance employee productivity, organizational efficiency, service delivery, and the achievement of institutional objectives through the effective utilization of Human Resource Information Systems.

HRIS, organizational Commitment and Organizational Performance

Managerial perceptions of the impact of HRIS on organizational efficiency a study by Kumar (2017), established the following: the efficacy of HRIS in achieving organizational effectiveness hence increased performance, it also brought about employee satisfaction

which was a result of effective human resource management leadership. Kumar (2017) believed that managers were not always satisfied with the acceptance and utilization of HRIS and found out that HR directors were generally satisfied but do not see the many benefits received by the organization from the usage of HRIS apart from its effectiveness in the processing of information and information sharing. Johnson and Guental (2011) are of the view that the HRIS should be coupled with greater expectations from the employees for more data and information and improve its ease of access. This could ultimately lead to managerial satisfaction with the system.

Managerial satisfaction with HRIS can also be affected by the detachment it creates between HR and the workforce. Managers are often used to working with HR professionals on a face-to-face basis and may find it challenging to use an online platform to seek answers to their questions on tasks accomplished. Undoubtedly, the HRIS enables more HR content to be made accessible online and other administrative tasks are assigned to the employees to manage; hence, the need for HR staff is significantly reduced. This weakens the relationship between HR managers and the organization and could lead to employee dissatisfaction due to poor relationships (Johnson & Geuntal, 2012; Sergio et al., 2010). Johnson and Guental (2012) emphasizes that a new HR system is comprised of new skills and roles for HR staff in all organizations; HR staff tends to focus more on multifaceted HR policy decisions and omissions which may have deleterious financial implications to the company so effective leadership provided by the top-level management commitment is necessary to mitigate these flouts (Kagio, 2012).

Theoretical Framework

Adaptive Structuration Theory

Adaptive Structuration Theory (AST) is quickly developing into a compelling theoretical and speculative perspective in academic research on the most cutting edge and innovative information communication technologies (Jones, & Karsten, 2008). Adaptive Structuration Theory (AST), inspired and motivated by Anthony Giddens's structuration concept, is one of the most significant theories for effective and active group communication (DeSanctis and Poole, 1994; Choi, et al., 2001).

Marshall Scott Poole and Gerardine DeSanctis developed AST in 1994 based on the ideas, principles, and viewpoints of Robert McPhee, David Seibold, and Anthony Giddens (Chin, Gopal, and Salisbury, 1997). They named his theory adaptive because they reasoned that members of groups and teams purposefully acclimate to processes, rules, regulations, and available resources in order to achieve organizational goals since they were certain that followers of numerous groups had an impact on the outcomes of any given activity (Choi, et al., 2001). A firm's structural topographies and its relationships with human social agents are currently explained by the duality of structure captured and described in AST.

This perspective helps human agents implement cutting-edge technologies and commercial entities' transformational ingenuity. As long as support for current and future research topics is fulfilled, AST also provides human resource management academics and experts with fresh insight into the interactions that occur throughout these inventive ingenuities. For those in human resource management who plan, scheme, evaluate, implement, or handle technology at work, it would be advantageous and helpful (Ajjan, Kumar and Subramaniam, 2016). Giddens Anthony's idea was developed by DeSanctis and Poole and given the name Adaptive Structural Theory in order to explore how organizations, teams, and businesses interact with information technology. It examines and assesses the technocentric view of how technology is used, highlighting the communal and social traits at the institutional level (Ajjan, et al., 2016). The word "AST" can be used to describe a strategy and an approach that

aims to clarify how information technology-related improvements fit into broader organizational change.

This theory seeks to comprehend and explain the many structural designs made possible by technological advancements as well as the architectural or structural patterns that emerge when people use technology. Theoretical profundity and productivity are both lacking in Human Resource Information Systems (HRIS) research, according to Wanget al. (2022). In light of this, the foundation of this study is the Adaptive Structuration Theory, a theory of human resource information systems implementation developed and built by DeSanctis & Poole (1994).

This theory was originally intended to investigate the implementation of information systems (AST). AST concludes that business establishments and information systems are linked and intertwined. Ruel and Chiemeké utilized the concepts from AST to a study of the HRIS implementation at Dow Chemicals (2009). The Dow Chemical's example explained how the "spirit" of HRIS, which AST referred to as its perspective, was pushed through end-user appropriation and manifested in expected and unexpected HRIS after effects. Furthermore, the instance demonstrates how end users appropriate an HRIS' beliefs and philosophies to benefit from the HRIS outcomes. For instance, effective leadership, aptitude, competencies, strategic decision-making process, conflict resolution and management, as well as the organizational environment and surroundings, make up the dimensions that describe or reflect the "spirit" of a group edifice or network (Oyagi and Mjomba, 2021). In keeping with AST, Wang, et al. (2022) proposed that the execution phase is where automated HRM practices and services are most useful. They explicitly confirmed the interaction between computerized HRM methods, together with HRM competence and maturity, and exploit changes in corporate organizations.

Empirical Review

Adeyemi and Bello (2025) studied the effect of Enterprise Resource Planning (ERP) system quality on organizational performance in Nigerian public universities. The study aimed to assess how ERP system characteristics such as reliability, flexibility, integration, and usability influence institutional efficiency and service delivery. The researchers adopted a descriptive survey research design. The population comprised administrative staff and ICT personnel in selected public universities across Nigeria, while a sample size of 350 respondents was selected using stratified sampling techniques. Data were collected through structured questionnaires and analyzed using multiple regression analysis. The findings revealed that ERP system quality has a significant positive effect on organizational performance. Specifically, system integration improved coordination among departments, reliability enhanced data accuracy and decision-making, and usability increased staff efficiency in administrative processes. The study concluded that ERP systems are critical tools for improving institutional performance in higher education. The researchers recommended regular system upgrades, user training programs, and continuous monitoring of ERP performance to ensure effectiveness. A limitation of the study was its focus on public universities only, which may limit generalization to other tertiary institutions such as polytechnics and colleges of education. The study therefore suggested that future research should extend the analysis to other categories of tertiary institutions and consider additional variables such as cost-effectiveness and user satisfaction.

Ibrahim and Yusuf (2025) examined the impact of management information system (MIS) quality on administrative performance in public tertiary institutions in Northern Nigeria. The study was designed to determine how system quality attributes such as usability, reliability, security, and responsiveness influence institutional decision-making and operational efficiency. A cross-sectional survey research design was adopted. The population consisted of

management and administrative staff of selected public tertiary institutions, while a sample size of 300 respondents was selected using simple random sampling techniques. Data were collected using structured questionnaires and analyzed using descriptive statistics, regression analysis, and analysis of variance (ANOVA). The findings revealed that MIS quality significantly enhances administrative efficiency, improves data management processes, and supports timely decision-making. The study also found that institutions with higher-quality information systems recorded better performance in planning, coordination, and service delivery. The researchers concluded that system quality is a key determinant of organizational performance in tertiary institutions. Recommendations included strengthening ICT infrastructure, improving system security, and continuous staff training on MIS utilization. A limitation of the study was its geographical focus on Northern Nigeria, which may not fully represent the situation in other regions of the country. Future studies were recommended to examine comparative analyses across geopolitical zones and explore emerging technologies such as artificial intelligence in MIS development.

Victor (2024) carried out study on human resource information systems (HRIS) and personnel administration in tertiary institutions in Nigeria. The purpose of the study was to determine how the quality of HRIS influences administrative effectiveness and organizational performance in higher educational institutions. The study adopted a descriptive survey research design because it enabled the researcher to obtain information from personnel management staff regarding the use and effectiveness of HRIS applications. The population consisted of human resource managers, administrative officers, and personnel staff working in selected public tertiary institutions in Nigeria. A sample size of 250 respondents was selected using purposive sampling techniques. Data were collected through structured questionnaires and analyzed using descriptive statistics and regression analysis. The findings showed that system quality variables such as reliability, responsiveness, accessibility, and user-friendliness significantly improved personnel administration activities. The study also found that HRIS reduced processing time, enhanced record management, improved communication among departments, and increased administrative productivity. Furthermore, institutions with effective HRIS experienced better employee management and improved organizational performance compared to institutions with less efficient systems. The researcher concluded that system quality plays a critical role in enhancing administrative efficiency and organizational effectiveness in tertiary institutions. Recommendations included continuous training of personnel staff, periodic upgrades of HRIS software, and the integration of HRIS with other institutional management systems. One of the major gaps identified in the study was the concentration on personnel administration without examining the broader effects of HRIS on institutional performance indicators such as service quality and stakeholder satisfaction. Future studies were therefore recommended to investigate these dimensions.

Methodology

A descriptive survey research design which is cross-sectional in nature was adopted for the study. Survey research provides a numeric description of attitudes, opinions, or trends of a population by studying a sample of that population. The area of the study is North East Nigeria and is made up of Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe states.

Table 1: Population of the Study

S/n	Name of Institutions	Total
1	Abubakar Tafawa Balewa University (ATBU) Bauchi, State	2,750
2	University of Maiduguri (UNIMAID), Borno State,	4,785
3	Modibbo Adama University (MAU), Yola, Adamawa State	2,216

4	Federal University Wukari	2,292
	Total	12,043

Source: Registry Unit of the Institutions, 2026

The sample was determined statistically using Yamane (1967) formula for sample size determination. This computation is shown below: $n = \frac{N}{1+N(e)^2}$

Where n = the sample size

N = the finite population

e = level of significance (or limit of tolerance)

1 = Unity (a constant)

$$\text{Therefore, } n = \frac{12043}{1 + 12043(0.05)^2}, \quad n = \frac{12043}{1 + 12043(0.05)^2}$$

$$n = \frac{12043}{1 + 30.11} \quad n = \frac{12043}{31.1} \quad n = 387$$

Therefore, n = 387 non-academic staff of four (4) federal universities of North East, Nigeria. Using the population size of 12043 at 95% confidence level at 5% error of precision level, for the purpose of increased representation, minimum of 20% of the sample size as recommended by Israel (2013) was added bringing the total to 387 (387 x 20 /100 = 77 + 387 = 464). This takes care of other unavoidable errors such as incorrect filling, response bias and failure of some respondents to return questionnaire. The questionnaire was distributed to four hundred and sixty four non-academic staff (464) of the four (4) selected Federal Universities in North East Nigeria. Using the proportionate allocation, the samples size was apportioned according to selected institutions as presented in Table 3.

Table 2: Apportionment of sample size according to population strata

S/N	Name of Institutions	Computation of sample size	Sample size
1	Abubakar Tafawa Balewa University (ATBU) Bauchi, Bauchi State,	$\frac{2750}{12043} \times 464$	106
2	University of Maiduguri (UNIMAID), Borno State,	$\frac{4785}{12043} \times 464$	184
4	Modibbo Adama University (MAU), Yola, Adamawa State	$\frac{2216}{12043} \times 464$	85
5	Federal University Wukari, Taraba State	$\frac{2292}{12043} \times 464$	88
Total			464

Source: Researcher's Computation, 2026

The sampling technique employed for the study was stratified sampling technique. Stratified sampling according to Akogun (2000) ensures that every segment (stratum) of the population is identified and its proportion of the population determined. The instrument used for data collection was an adapted questionnaire developed from previous studies. The questionnaire was administered face-to-face by the researcher and his research assistants.

Due to the multiplicity of the independent variables, Partial Least Square-Structural Equation Modelling (PLS-SEM) was employed to test null hypothesis. SEM sought for prediction of various components to motivational factors and workers' job performance. All analyses were done using Smart PLS and Statistical Package for Social Science (SPSS) version 29.

Result and Discussion

A total of 460 copies of the questionnaire were distributed to employees of the selected federal universities in North-East Nigeria. Of the 460 copies distributed, 455 copies were retrieved, representing a 98.9% response rate, while 5 copies, representing 1.1%, were not returned. However, upon screening the retrieved questionnaires, 5 copies were rejected due to incomplete responses and missing values. Consequently, 450 copies of the questionnaire were considered valid and retained for the final analysis, representing 97.8% of the total questionnaires distributed and 98.9% of the questionnaires retrieved. Table 1 presents the response rate.

The Measurement Model

Verifying the model's scale validity and reliability is typical practice for SEM analysis. By measuring the fitness index and coefficient of determination, the measurement model and structural model are judged to be adequate. The standardised root mean residual, or SRMR, is a fitness metric used to evaluate how well the model fits the available data. The greater the model's adequacy with data, the lower the SRMR value for both saturated and saturated models, which is typically advised to be less than 0.08 (Henseler et al., 2017). The SRMR generated in this instance is 0.0559 for the saturated model and 0.0676 for the estimated model, both of which are much below the suggested value see Table below.

Table 3: Goodness of model fit (saturated model)

	Value	HI95	HI99		Value	HI95	HI99
SRMR	0.0559	0.0390	0.0426	SRMR	0.0676	0.0451	0.0508
d _{ULS}	1.0139	0.4941	0.5902	d _{ULS}	10.2497	0.6623	0.8392
d _G	0.6752	0.2750	0.3088	d _G	0.9208	0.2748	0.3062

Source: Field Survey, 2026

Reflective Measurement Model Assessment

Three evaluation factors must be looked at first in the reflective measurement model. The three evaluations are discriminant validity, convergent validity (indicator reliability/outer loadings and AVE), and internal consistency reliability. Figure 1 and Table 5 provide a summary of the findings from these three evaluations in relation to this study.

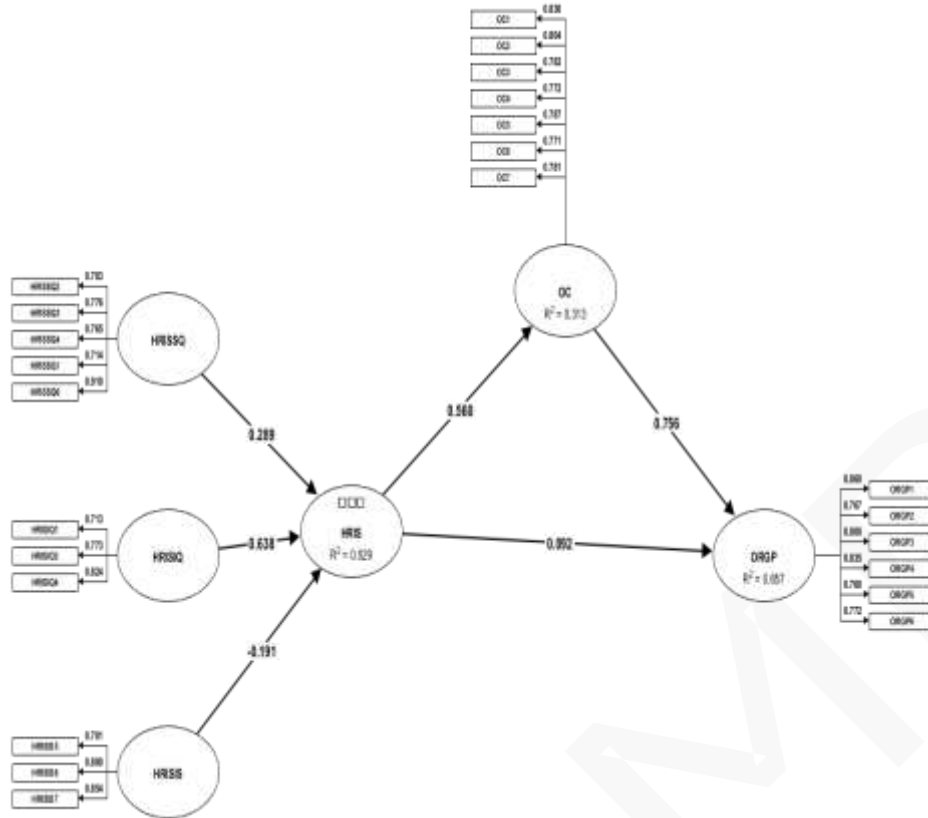


Figure 1: Measurement Model of the study

Source: Field Survey, 2026

Table 4: Discriminant Validity: Heterotrait-Monotrait Ratio of Correlations (HTMT)

Construct	HRISSQ	HRISIQ	HRISIS	OC	ORGP
HRISSQ					
HRISIQ	0.7555				
HRISIS	0.7488	0.7989			
OC	0.6699	0.7391	0.8710		
ORGP	0.6422	0.7530	0.7896	0.8045	

Note: **HRISSQ** = Human Resource Information System Quality, **HRISIQ** = Human Resource Information Quality, **HRISIS** = Human Resource Information Security, **OC** = Organizational Commitment, **ORGP** = Organizational Performance.

Source: Field Survey, 2026

Fornell and Larcker's Criterion

The second technique used to evaluate the discriminant validity of the reflective measurement model is the Fornell-Larcker criterion. Additionally, the ADANCO algorithm function is used to compute the square roots of AVE values. As a result, the diagonal square root of AVE is greater than the off-diagonal correlations in the corresponding rows and columns. According to Fornell and Larcker's criterion, it is concluded that the reflective measurement model used in this study has satisfactory discriminant validity. Based on this criterion discriminant validity is said to be achieved when the square root of the AVE of the construct of interest is greater than any correlation between the construct and any other constructs in the model (Fornell & Larcker, 1981; Ali et al., 2016). As shown in the table, the bolded diagonal values which represent the square root of the AVE of each construct is higher than the inter-correlations

between other constructs in the model, thus further satisfying the discriminant validity criterion.

Structural Model

The PLS-PM is used to analyze the path coefficients, R^2 , and coefficient of determination in relation to the structural model practice. Due to the ordinary least squares estimator's limitations, the PLS-PM approach requires a bootstrap procedure to compute the standard error of path coefficients (McDonald & Ho., 2002; Ronkko & Evermann, 2013; Aimran et al., 2017). According to studies by Sarstedt et al. (2019) and Henseler, Hubona, and Ray (2016), 4,999 resampling is advised to increase the degree of accuracy and consistency of estimations. Refer to Figure 1:

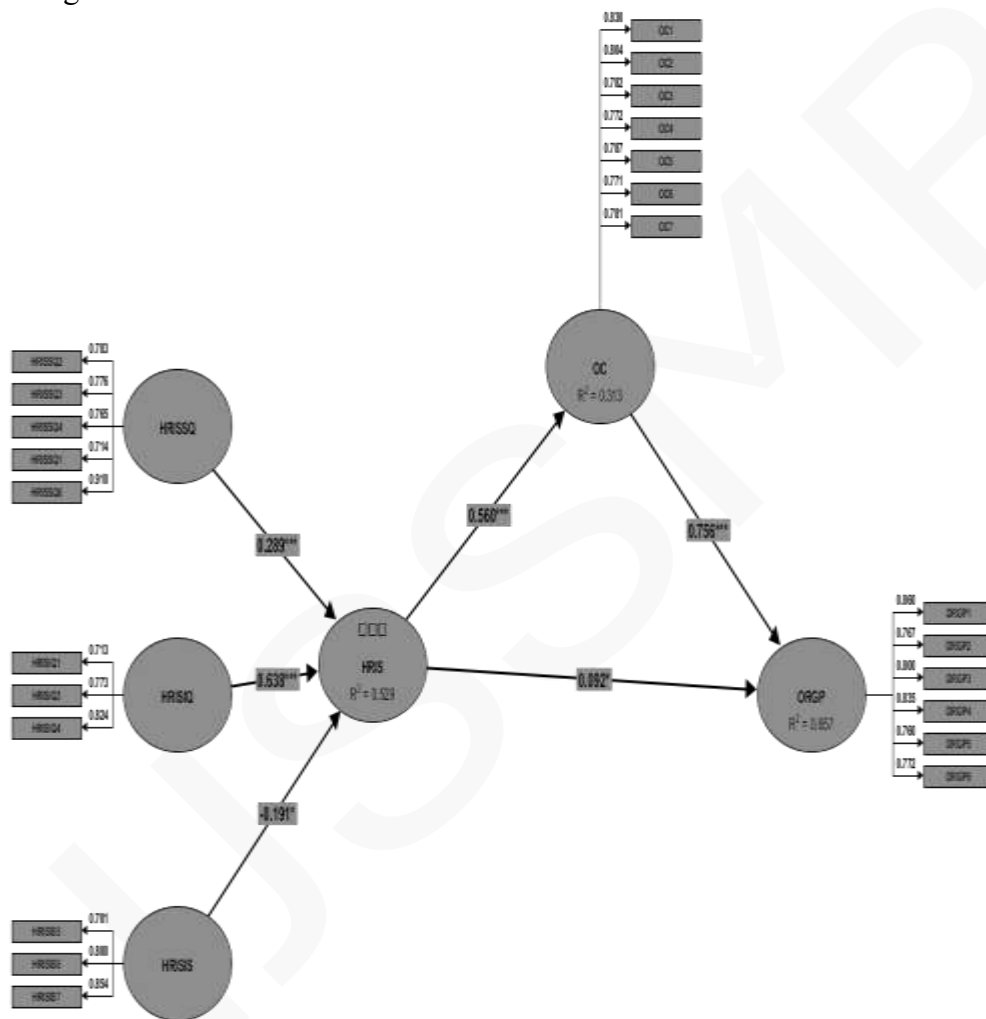


Figure 2: Structural Model
Source: Field Survey, 2026

Coefficient of Determination (R Square)

Assessing the model's prediction accuracy using the coefficient of determination score, or R square (R^2), is the next stage in the structural model evaluation process. According to Ramayah et al. (2016), R square is the sum of the exogenous factors' effects on the endogenous variable or variables in the model. It is thought of as the degree to which the variance in associated endogenous constructs may be explained by the exogenous constructions. The model's predictive accuracy increases with a higher R square value (Jin, Chen, and Simpson 2001).

Three levels of prediction accuracy—substantial, moderate, and weak—are represented by 0.26 (26%), 0.13 (13%) and 0.02 (2%) accordingly, in accordance with Cohen's (1988) rule of thumbs for R square acceptance.

As in Table 5, R^2 values, work satisfaction accounts for 31.34% of the variation in organizational commitment. Additionally, and human resource information system and organizational commitment have been found to account for 65.71% of the organizational performance. Given that it is greater than 0.10, as recommended by Hair et al. (2014) and Falk & Miller (1992), this number falls within the acceptable range. However, the moderate percentage of 31.34% and 65.71% of unexplained variations suggests that more important elements outside the purview of this study can be investigated, boosting the explanatory power of and human resource information system evaluation and organizational commitment.

Table 5: Coefficient of determination (R²)

Construct	Coefficient of determination (R ²)	Adjusted R ²
OC	0.3134	0.3119
ORGP	0.6571	0.6556

Note: **OC** = Organizational Commitment, **ORGP** = Organizational Performance.

Source: Filed Survey, 2025

Effect Size (f Square)

Additionally, Cohen's f square (f^2) is used to evaluate the effect size in order to ascertain the relative influence of the predictor construct on the endogenous construct (Cohen 1988). Based on the R square, it shows how well an external construct explains a certain endogenous construct. Cohen (1988) states that the difference between the R square values for the model evaluation that includes or excludes the preceding construct is considered the effect size. where big, medium, and small effect sizes of f^2 are described by 0.35, 0.15, and 0.02 correspondingly. Table 6 displays the following outputs: OC → TI (0.1923), JS → OC (0.0029), and JS → TI (0.0610).

Table 6: Effect Size (f Square)

Effect	Beta	Indirect effects	Total effect	Cohen's f^2
HRIS → OC	0.5598		0.5598	0.4564
HRIS → ORGP	0.0919	0.4230	0.5148	0.0169
OC → ORGP	0.7556		0.7556	1.1431

Note: **HRIS** = Human Resource Information System, **OC** = Organizational Commitment, **ORGP** = Organizational Performance.

Source: Filed Survey, 2026

Summary of Major Findings

H₁: There is no significant effect of a human resource information system evaluation on organization commitment. Based on the findings, this null hypothesis was not supported because the calculated value is less than the 0.005 significance level. This indicated that a human resource information system evaluation has a significant effect on organization commitment.

H₂: - There is no significant effect of organizational commitment on turnover intentions. Based on the findings this null hypothesis was not support because the calculated value is less than the 0.005 significance level. The result reveals significant effect of organizational commitment on organization performance.

H₃: - Organizational commitment has partial mediation on the relationship between the human resource information system evaluation and organizational performance. Based on the findings this null hypothesis was not supported because the calculated value is less than the 0.005 significance level.

Conclusion

The study concluded that HRIS system quality evaluation has a significant effect on organizational performance in public tertiary institutions in Northeast Nigeria. A reliable, flexible, accessible, and user-friendly HRIS enhances administrative efficiency, supports employees in performing their duties, and contributes to improved institutional performance.

The study concluded that organizational commitment has a significant effect on organizational performance. Employees who are committed to their institutions are more likely to identify with organizational goals, demonstrate greater dedication to their responsibilities, and contribute to institutional activities.

Finally, the study concluded that organizational commitment partially mediates the relationship between HRIS evaluation and organizational performance. This means that HRIS evaluation affects organizational performance both directly and indirectly through organizational commitment. Thus, the benefits of HRIS are not limited to technological improvements; they also operate through employees' commitment to the institution.

Recommendation

The following are the recommendations of the study:

- i. The results recommend that the human resource information systems in organizations should be well fashioned to capture their business as well as organizational needs.
- ii. The study recommends that commercial state corporations and other business establishments should identify operational, relational (real and achievable), and transformational goals; exercise due diligence in needs analysis to pinpoint information obligatory in the realization of definite goals or objectives; and focus on business needs rather than technology in driving business process reengineering; actively manage business expectations and realities; and assuage inhibitors during the adoption and execution period.
- iii. The study also recommends the reception by managers in embracing HRIS enables them to identify business opportunities for the exploitation of ICT at the workplace by providing suitable strategic vision, policy development, and resource allocation for the espousal and portrayal of innovations through technologies. In addition, discernible top management support agrees on the importance of innovation and creativity in helping to overcome organizational resistance to HRIS.

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