Human Resource Accounting and Financial Performance of Commercial Banks in Nigeria

[1]Aina, Akinyemi Oludare, [2]Onodi, Benjamin, E. & [3]Onuche, Sarah, E.
Department of Accounting
College of Management Sciences
Michael Okpara University of Agriculture,
Umudike, Umuahia, Abia State

https://doi.org/10.56201/jafm.vol.12.no11.2026.p44.61

Abstract
The study is focused on human resource accounting and financial performance of commercial banks in Nigeria. Staff remuneration, staff training cost, and staff health and safety cost as measures of human resource accounting, while return on assets was used as measures of financial performance. To achieve the objective of this study ex-post facto research design was adopted. The population of the study is made up of 13 listed commercial banks in Nigeria. judgmental sampling was used to select 12 commercial banks after eliminating Jaiz bank due to incomplete data. The data collected were analyzed using generalized method of moments (GMM). The findings revealed that staff remuneration has a significant effect on ROA, while, staff training cost and staff health and safety cost were found to have no significant effect on ROA. The study recommends that management of listed commercial banks should maintain appropriate and competitive remuneration structures. Banks should ensure that salaries, allowances, incentives and other employee benefits are adequately linked to employee productivity and organisational performance. However, remuneration should be carefully managed to prevent excessive personnel costs from eroding profitability. Also, banks should continue to provide appropriate healthcare, occupational safety measures, wellness programmes and supportive working environments. Management should view such expenditure as an investment in employee capacity rather than merely as an administrative cost.

Keywords: *Human resource accounting, staff remuneration, staff training cost, and staff health and safety cost, financial performance, return on asset*

1.0 Introduction

Human resources constitute one of the most important assets of an organisation because employees' knowledge, skills, experience, competencies and creativity contribute significantly to organisational productivity and sustainability. In the contemporary business environment, organisational success depends not only on the availability of financial and physical resources but also on the ability to attract, develop, motivate and retain competent employees. This is particularly important in the banking industry, where the quality of financial services, customer satisfaction, operational efficiency and competitive advantage largely depend on employees' professional expertise and commitment. Consequently, organisations are increasingly

recognising the need to account for investments made in their workforce and evaluate the contributions of human resources to organisational performance (Oyaide, et al., 2024).

Human Resource Accounting (HRA) refers to the process of identifying, measuring, analysing and reporting the costs and economic value associated with human resources within an organisation. It provides management with relevant information regarding expenditure incurred on recruitment, employee remuneration, training and development, healthcare, staff welfare and other employee-related investments. According to Khan (2021), human resource accounting provides useful information for assessing the contribution of human capital to organisational financial performance. Similarly, Onuoha (2021) established that human capital significantly influences corporate financial performance, while structural capital also plays an important role in translating human capital resources into improved organisational outcomes. These perspectives suggest that employees should not merely be viewed as sources of operating expenditure but as strategic resources capable of generating economic benefits.

The main objective of human resource accounting is to assist and facilitate management to get information on the cost and value of human resources. Human resources accounting brings to light the quantum of human resources and indicates the right control of conservation, depletion and appreciation of it in the right perspective. It provides data to the interested persons about the cost of human resources and correspondingly comparing it with the benefit obtained out of its utilization (Eke & Okafor, 2023). The relevance of human resource accounting is particularly pronounced in the Nigerian banking industry because commercial banks operate in a highly competitive and technologically driven environment. The introduction of digital banking, electronic payment systems, automated financial services and other technological innovations has increased the demand for employees with specialised knowledge and technical competencies. Consequently, listed commercial banks must continuously invest in staff training, professional development, employee welfare and appropriate remuneration to maintain operational efficiency and improve service delivery. Such investments are expected to enhance employee productivity, reduce operational errors, improve customer relationships and ultimately contribute to profitability (Onyebuchi, 2025). Financial performance refers to the extent to which an organisation achieves its financial objectives through the effective utilisation of available resources. It is commonly measured using indicators such as return on assets (ROA), return on equity (ROE) and earnings per share (EPS). These indicators provide information about an organisation's ability to generate profits from its assets, shareholders' investments and available business opportunities. In the banking industry, financial performance is particularly important because it reflects the efficiency with which banks utilise their resources to generate returns for shareholders while maintaining sustainable operations (Onuoha, 2022). Despite the growing recognition of human resource accounting, concerns remain regarding the extent to which expenditure on employees translates into improved financial performance. While investments in training, remuneration and employee welfare may enhance productivity, excessive employee-related expenditure may increase operating costs and reduce profitability where the benefits do not correspond with the costs incurred. Furthermore, the absence of consistent measurement and disclosure of human resource-related investments makes it difficult to establish their actual contribution to the financial performance of banks. The differing findings of previous studies also suggest that the relationship requires further empirical investigation (Orji, et al., 2025).

Extant literature like the study of Omodero and Ihendinihu (2017) asserts that if staff is properly and satisfactorily remunerated, they are motivated to work harder for the achievement of the organizational objective. Also Edom (2019) found that training and development of staff have

significant effect on the performance of the organization. This implies that well trained staffs have the capacity to handle technical jobs that would help attain the objectives of the organization. Hence the success of these organizations is contingent on the quality of their human resource, knowledge, skills, competence, motivation and understanding of the firm culture. In knowledge-driven economies, it is imperative that the humans be recognized as an integral part of the total worth of the human capital (Ofurum, 2018). It then becomes necessary that some methods of qualifying the worth of the knowledge, motivation, skills and contribution of the human elements as well as that of the firm processes like recruitment, selection, training, health care and remuneration which are used to build and support these human aspect is developed to enhance optimal performance. Against this background, this study examines the impact of human resource accounting on the financial performance of listed commercial banks in Nigeria.

The specific objectives are to:

(i) Examine the effect of staff remuneration costs on return on asset of commercial banks in Nigeria.

(ii) Determine the effect of staff training costs on the return on asset of commercial banks in Nigeria.

(iii) Ascertain the effect of staff health and safety costs on the return on asset of commercial banks in Nigeria.

2.0 Review of Related Literature

Human resource accounting

Human Resource accounting is a term which refers to the set of individuals who make up the workforce of an organization or a business entity. In traditional accounting concepts, every human resource related expenditure is treated as cost which reduces profit. However, Bullen and Eyler (2020), stated that Human Resource Accounting involves accounting for expenditures which related to human resources as assets. Woodruff (2023), defined Human Resource Accounting as the identification, accumulation and dissemination of information about Human Resource in dollar (Naira) term. He further explained that, Human Resource Accounting is the systematic accumulation of information about changes in investments made in human resources and reporting back the information to operating managers in order to assist them to make better decisions than they would have been able to make without such additional information.

Seth (2019), stated that Human Resource Accounting (HRA) means accounting for people as original resources. According to him, it is the measurement of cost and value of people for an organization. It is also a way of thinking about the management of people in formal organization. He confirmed that knowledge of workers is important resources for a typical modern business firm and that, with the growing complexities of business organizations the need for competent people continue to increase while financial reporting ignores such resources.

Parameswaran and Jothi (2025) referred to American Accounting Association's definition of human resource accounting as the process of measuring data of human resources and communicating the information to the interested parties. Going by the various definitions above, human resource accounting in simple term is accounting for the value of people in organization to enhance information for decision making by the users of financial information.

According to the American Accounting Association's Committee on Human Resource Accounting (1973), Human Resource Accounting is nothing but "the process of identifying and

measuring data related to human resource and communicating this information to interested parties". From this definition, we could recognize that HRA is not only involved in the measurement of data related to placement, training and development of employees but also involved in the evaluation of financial condition of people in an organization. This has been supported by Akintoye and Adidu (2016) who defined HRA as "the measurement and reporting of the economic value of people in organizational resource. "Overall, the HRA can be defined as the process of identifying and measuring data related to human resource for the development and enhancement of economic value of interested parties associated with corresponding organization. According to Syed (2019), it comprises the energies, skills, talents and knowledge of people which are, or which potentially can be applied to the production of goods or rendering useful services. The success of any organization depends on the ability of the human resources to effectively and efficiently optimize other resources such as land, equipment and money hence human resources are the greatest assets at the disposal of businesses. This is why the statement "our greatest assets are our people" is declared in most companies' annual reports (Enofe & Ovie, 2023). The work of Bassey and Tapang (2012) points to the fact that human resources have been identified as one of the main sources of competitive advantage by many organizations in today's economy. Particularly, the private sector organizations are widely diverse and have focused on human resources as having special strategic value for organization development. Adebawojo *et al*. (2025), maintain that the quantification of the value of Human Resources helps the management to cope up with the changes in its quantum and quality so that equilibrium can be achieved in-between the required resources and the provided human resources. As a result, it becomes imperative to put measures in place to effectively manage people with their needs and expectations to enhance productivity.

The growing importance of human resources accounting is a determinant of economic success at both the macroeconomic and microeconomic levels which dictates that firms need to adjust to this new economic reality. Specifically, if human capital is a key determinant for organizational success, then investment in the training and development of employees to improve performance is a critical component of this success (Eke & Okafor, 2023). This broad socioeconomic shift underscores a growing need for measuring and analyzing human capital when making managerial and financial decisions. Yet important human resource decisions involving hiring, training, compensating, productivity and other matters are often made in the absence of specific information about the different cost and benefit of these particular choices (Adebawojo *et al*., 2025).

Remuneration

Remuneration refers to the total compensation or financial reward provided to employees in exchange for the services they render to an organization (Kanzunnudin, 2017). Remuneration could be seen as pay or reward given to individuals for work done. The indicators of remuneration include: basic salary, wages, health schemes, pension schemes, transport allowances overtime allowances and responsibility allowances. This study chooses to align with remuneration as a measure of wages and salaries. Different definitions have been advanced on salaries and wages usually to show the differences that exist between both terms. However, basic salary could be conceptualized as a fixed periodical payment for non-manual employees usually expressed in annual terms, paid per month with generally no additions for productivity. Wage refers to payment to manual workers, always calculated on hourly or piece rates.

Surbhi (2025) also defined salary as a fixed amount paid to the employees at regular intervals for their performance and productivity whereas wages are the hourly- based payment given to the labor for the amount of work finished in a day. He further argued that while salaried persons are generally said to be doing "white collar office jobs" which implies that an individual is well educated, skilled and is employed with some firm and holds a good position in the society, whereas the waged person are said to be doing "blue collar labour job" which implies that an individual is engaged in the unskilled or semi-skilled job and is drawing wages on a daily basis.
One purpose of a person as an employee of a company is to earn income in the form of wages or compensation. Every company in determining the amount of wages paid to the employee must be feasible, so that the lowest wage is given to meet the needs of their life (Kanzunnudin, 2017).
It has been argued that wages should not only be adequate but must also show some element of equity, this is particularly true from the point of the employees. Anything short of a fair and equitable wage or reward can quickly influence the wrath of employees in an economy such as Nigeria. Salaries and wages can be measured in terms of the amount paid per annum. Yinka (2017) in his study on the impact of remuneration on employees' performance, found a strong and positive relationship between employee remuneration and performance.

Education and training

Education and training are fundamental human resource practices aimed at equipping employees with the necessary skills, knowledge, and competencies to handle complex and evolving job responsibilities. Globally, organizations increasingly depend on the enhanced capabilities of a skilled workforce to gain and sustain a competitive advantage (Shu-Rung & Chun-Chieh, 2023). To develop these desirable attributes, human resource manager's design and implement structured training programs that align with organizational objectives (Lakra, 2016). Such programs not only familiarize employees with their roles but also foster greater commitment, motivation, and job satisfaction. Huang and Jao (2016) emphasize that training initiatives are designed to prepare employees to perform their duties accurately and in accordance with established standards, thereby improving efficiency and productivity. In addition, Khan and Baloch (2023) note that forward-looking organizations invest in long-term training and skill development programs to enable their workforce to adapt to current and future uncertainties, thus enhancing employee performance through higher levels of commitment and innovation.
Education and training of an employee are all geared towards making an employee skilled enough to handle complex jobs. Across the world, organizations have sought to rely on improved skills, knowledge, and capability of the talented workforce to create competitive advantage (Shu-Rung & Chun-Chieh, 2017). To develop the desirable skills, knowledge, and capability of employee and position them to perform their responsibilities, managers in charge of human resource training design different training programs (Lakra, 2016). Such training programs not only target to improve the familiarity of employees about their responsibilities, but it also helps to encourage employees to develop more commitment towards their job. Huang and Jao (2016) explained that organizations design training programs to prepare their employees to perform their jobs correctly and according to the laid down standards. Organizational personnel design training sessions to ensure that they optimize the potentials of employees.
Khan and Baloch (2017) opined that majority of organizations prefer to invest in different programs that create new skills through long-term planning. This is to enable them adapt to any current and future uncertainties. Therefore, they ensure that they improve the performance of their employees through superior levels of commitments and motivation. It is of great

significance to note that employees are the backbone of any organization. No matter how big or small the organization is, employees are the true determinants of how successful or how incompetent an organization will turn out to be. Therefore, having an adequately trained workforce is vital to ensure that the workplace has the right employees that have been professionally trained and qualified to do their tasks properly. According to Jaoude (2025), organizations providing high-level training have been able to realize three times increase in profits compared to its competitors. Also Ali and Nada (2018) conducted a study on effect of training and employee performance and found that education and training has a significant effect on the performance of an organization. Education and training can be measured using the cost involved in the training of staff.

Regardless of an organization's size or industry, its employees remain the most critical determinants of its success or failure. Ensuring that positions are filled with educated and well-trained personnel is vital for operational effectiveness and sustainable performance. Jaoude (2025) found that organizations that provide high-quality training programs achieve up to three times higher profits than their competitors, highlighting the strategic importance of continuous employee development. Similarly, Ali and Nada (2018) revealed a significant positive relationship between education, training, and organizational performance, underscoring the value of investing in human capital. In the context of human resource accounting, education and training expenditures can be quantified as the financial investments made toward staff development, reflecting the organization's commitment to enhancing the capabilities of its workforce and improving overall performance outcomes.

Employee health and safety

Safety customs can enhance proactive injury avoidance, and studies conducted has demonstrated that organizations do perceive health and safety as an essential segment of making and keeping up a healthy workforce by the provision of hospitals for treatment or by providing health care and safety allowances. In altering an association's way of life, it is imperative that top management involvement in health and security issues is paramount and that a vibrant and positive attitude is needed to institute safety culture in the organization. The implementation and review of any safety programme becomes successful with the involvement of top level or strategic level management (Fitzgerald, 2025). Muchemedzi and Charamba (2016) characterized occupational safety and health "as a science concerned with wellbeing in connection with job setting" and the wellbeing and security of all workers in a working environment is firmly connected to profitability. Gbadago and Honyenuga (2017) found that employee health and safety have significant effect on firm performance. Employee health and safety can be measured using the cost involved in the provision of health care facilities or the allowances that are meant to take care of health and safety issue of workers.

Employee health and safety cost refers to the cost associated with maintaining a safe and healthy working environment for employees (Etim & Effiong, 2021). These costs include a wide range of expenses such as personal protective equipment, safety training, medical exams, workers compensation insurance, safety inspections, and other safety measures aimed at preventing injuries or illnesses on the job. Employee health and safety cannot be overstated. Workplace injuries and illnesses not only cause significant suffering for employees, but they also result in lost productivity, increased healthcare costs, and potential legal liabilities for employers. Therefore, investing in employee health and safety is critical to the success of any organization. Seleim *et al*. (2017) found that attended training courses and teamwork practices lead to

superstars, where more productivity could be translated into organizational services and the quality of developers and the volume of market share improved (Bankole, 2020).
Investing in employee health and safety not only benefits employees, but it can also save organizations money in the long run. By reducing the likelihood of workplace injuries and illnesses, employers can reduce workers' compensation costs, insurance premiums, and legal fees. In addition, creating a culture of safety can lead to increased productivity, improved employee morale, and a more engaged and motivated workforce.

Corporate Performance

Generally, performance could be regarded as one of the key determinant factors that are widely used in measuring the success or failure of organizations. Although several research works had been carried out on performance related issues as it affects organizations or firms but its definition has been challenging to researchers. According to Roger and Wright (2018), performance is probably the most widely used dependent variable in organizational research today, yet it remains one of the vaguest and loosely defined constructs. They further confirmed that the struggle to establish a meaning for performance has been ongoing for many years and it is not limited to the field of strategic Human Resource Management (SHRM).
Afiouni (2017), confirmed the fact that defining organizational performance has been very challenging to researchers because of its many meanings. However, they traced the history of the attempted definitions of performance as noted by other researchers between 1950s and 2006. In the 50s organizational performance was defined as the extent to which organizations, viewed as social system fulfilled their objectives. In this era, performance evaluation focused on work, people and organizational structures. Between 60s and 70s, organizations explored new ways to evaluate their performance. Thus, performance was defined as an organization's ability to exploit its environment for accessing and using the limited resources. Also, in the years between 80s and 90s, identifying organizations objectives became more complex than it was originally considered. This made managers to consider organization as a successful one, if such organization is able to accomplish its goal (effectiveness) using minimum resources (efficiency). Thus, Subsequent organizational theories supported the idea of successful organization as the one which is able to achieve its performance objectives based on the constraints imposed by the limited resources.
Ahangar (2021), further noted several other definitions of performance as highlighted by Lebans and Zuske (2016), this included defining performance as a set of financial and non-financial indicators which offer information on degree of achievement of objectives and results. Following the various definitions of performance considered so far, performance could also be stated to be the realization of organizational goals and objectives with minimum resources while performance measurement could be described as the assessment of the level of achievement of organizational goals and objectives with minimum resources. For an organization to effectively and efficiently achieve its goals and objectives, human asset should be considered as a germane factor contributing to organization's performance.
The performance of an organization could be categorized into human resource which could be measured in terms of turnover; organizational category which could be measured in terms of productivity, quality, customer satisfaction and manufacturing flexibility; financial accounting category which could be measured in terms of return on assets (ROA), return on equity (ROE), profits, sales, and employee value; while the financial market category could be measured in

terms of stock prices or the measure of the ratio of the market value of the firm's assets to their replacement cost in line with the Tobin's Q (Rogers and Wright 2018).

The following could be regarded as the attributes of organizational performance as identified in Ahangar (2021), performance is dynamic, requiring judgment and interpretation; performance may be illustrated by using a casual model that describes how current actions may affect future results; performance may be understood differently depending on the person involved in the assessment of the organizational performance. For instance, performance can be understood differently by a person within the organization compared to one from outside.

Theoretical Review

The study anchored on human capital theory.

Human Capital Theory

This study was built on the Human Capital theory (HCT) proposed by Seth (2009) and extensively developed by Ratti (2012). The theory has its root from labour economics which is a branch of economics that focuses on general work force in quantitative term. According to the theory, Human capital theory contends that education or training raises the productivity of workers by imparting useful knowledge and skills, thus raising workers' future income through increase in their lifetime earnings.

The theory postulates that expenditure on education or training and development is costly, and should be considered as investment since it is undertaken with a view to increasing personal incomes. Human capital approach is used to explain or support occupational wage differential. However, the position of this study is that education or training and development will not only increase employee personal income, it will also serve as a means of achieving corporate competitive advantage which reflects ultimately in organizational performance. According to Flamholtz (2024), human capital theory distinguished between general skills and firms' specific skills of human resources. General skills are skills possessed by individuals which provide value to a firm and are transferable across a variety of firms. For instance, all competitor firms have the potential to accrue equal value by acquiring employees with knowledge of general management, the ability to apply financial ratios, or general cognitive ability. On the other hand, specific skills provide value only to a particular firm, and such skills are of no value to competing firms. An instance of this is the knowledge of how to use a particular technology used only by one firm, or knowledge of a firm's policies and procedures provided to that firm, but usually would not be valuable to other firms (Ratti, 2012).

Human Resource Accounting (HRA) operationalizes this theory by identifying, measuring, and reporting the economic value of human resources in financial statements. Instead of expensing costs like recruitment, training, and compensation immediately (as per traditional accounting), HRA capitalizes them as investments in human assets. This provides a clearer picture of how human capital contributes to value creation. In the context of the study HCT directly underpins the rationale. Nigerian commercial banks operate in a highly competitive, service-driven sector where human capital (e.g., skilled analysts, relationship managers, and compliance experts) drives key outcomes like customer retention, risk management, innovation in digital banking, and regulatory compliance. HRA enables banks to quantify these investments (e.g., training costs, employee development expenditures) and link them to financial metrics such as Return on Assets and Return on Equity (Etoko, 2026).

Empirical Review

Etoko (2026), examined the relationship between employee costs and financial performance of quoted oil and gas marketing firms in Nigeria between 2016 and 2023 financial years. It adopted descriptive correlation research design. Employees cost, served as the independent variable and was proxied by other employees benefit cost; while financial performance represented the dependent variable measured in terms of revenue generation, net profit margin and net asset per share. A sample of about a sample representing about 67% of the population was drawn for analysis. The study used secondary data extracted from annual reports and accounts of the sampled firms and Nigeria Exchange Group official websites. Data was analyzed descriptively and inferentially by means of Excel 2016 Version. The findings showed that; insignificant but positive relationship exists between other employees benefit cost and revenue generation, net profit margin, and net asset per share in the industry within the study period. The study concluded that insignificant put positive relationship exists among employees cost and financial performance.

Aina et al. (2026), investigated the effect of human resource accounting on the financial performance of quoted oil and gas companies in Nigeria. The study adopted an ex-post facto research design and utilised secondary data obtained from published annual reports and financial statements of selected companies listed on the Nigerian Exchange Group for the period 2015–2024. Human resource accounting was measured using recruitment costs, training and development costs, and employee welfare costs, while earnings per share (EPS) and net profit were used as measures of financial performance. The study employed descriptive statistics, correlation analysis and panel data regression techniques, including fixed and random effects models. The findings revealed that human resource accounting practices had a significant effect on financial performance.

Eginiwin and Onovughe (2026), investigated human resource accounting and its impact on return on equity in Nigeria's deposit money banks. The study adopted an ex-post facto research design and selected ten deposit money banks listed on the Nigerian Exchange Group. Data were obtained from the banks' audited annual reports covering 2020–2024, while regression analysis was conducted using SPSS version 23. Human resource accounting was measured using employee training costs and staff salary expenses, while return on equity (ROE) served as the measure of financial performance. The findings revealed that employee training expenditure and staff salary expenses had positive relationships with return on equity.

Orshi et al. (2026), examined intellectual capital, staff development and profitability of banks in Nigeria. The study investigated the contribution of intellectual capital to bank profitability and the moderating role of staff training and education. Data were obtained from twelve listed banks covering 2013–2023. The findings revealed that value-added intellectual capital significantly contributed to profitability, with capital employed efficiency emerging as the most consistent driver. The study also established that staff training and development strengthened the relationship between intellectual capital and profitability by enabling employees to utilise organisational knowledge and resources more effectively.

Zafar (2026), examined human capital efficiency and financial performance in Islamic banking using machine learning techniques. The study utilised data from 135 Islamic banks across 32 countries, covering 2017–2023 and comprising 886 bank-year observations. The Random Forest algorithm was employed to investigate the relationship between human capital and financial performance. The findings revealed a nonlinear, three-phase relationship between human capital investment and financial performance. Initially, human capital investment was associated with

relatively stable performance, followed by a decline resulting from the high costs of workforce development, before performance eventually stabilised.

Eluwa et al. (2025), examined the impact of staff training and development on the financial performance of commercial banks in Nigeria. The study covered the period 1981–2023 and utilised an unbalanced panel dataset involving seven selected commercial banks, namely First Bank, Union Bank, UBA, Wema Bank, Access Bank, Zenith Bank and GTBank. Data were obtained from financial reports and internal records of the selected banks. The data collected were analyzed using regression analysis. The findings revealed that staff training and development have significant impact on the financial performance of commercial banks in Nigeria.

Usikhifo (2025), investigated human assets and financial performance of quoted deposit money banks in Nigeria. The study examined thirteen listed banks over the period 2018–2023 using secondary data obtained from their annual financial statements. Human resource assets were measured using salary expenses, number of employees, research and development expenditure, employee training and performance appraisal, while return on assets (ROA) was used as the measure of financial performance. Panel regression analysis was employed. The findings revealed that salary expenses had a statistically significant negative relationship with profitability, suggesting that increasing employee costs without corresponding productivity improvements could reduce financial performance. Other variables, including employee training, number of employees, research and development and performance appraisal, showed either positive or negative relationships but were statistically insignificant.

Onyebuchi (2025), examined the effect of human capital investment on the financial performance of listed deposit money banks in Nigeria. The study investigated the influence of educational costs and staff remuneration costs on return on assets (ROA). Secondary data were collected from the annual reports of eight selected banks out of fifteen listed banks, covering the period 2015–2024. The study employed descriptive statistics, unit root tests, diagnostic tests and panel least squares regression. The findings revealed that educational costs had a positive but statistically insignificant effect on ROA, whereas staff remuneration costs had a positive and statistically significant effect.

Gap in Literature

Researches on human resource accounting and financial performance have been conducted previously by different authors both local and international. However, there has been inconsistency in their results. Some findings revealed that human resource has significant effect on firm performance (Woan *et al*. 2025; Stanley *et al*. 2024; Adegbayibi, *et al*., 2024), while some revealed insignificant effect on financial performance (Etoko 2026; Inuwa 2025; Akaegbobi, *et al*., 2025). Most previous studies do not consider staff health and safety costs as a component of human resource accounting. They only focused on staff remuneration or/and staff training cost without understanding the importance of staff health and safety in organizational performance. Bank employees need to be safe and healthy to be able to deliver their duties effectively. Therefore, there is need to include staff health and safety costs as components of human resource accounting and that is the gap this study intends to fill. The study also filled in the gap in literature by considering the relevant pre- and post-estimation tests suitable for the study so as to enhance the reliability and validity of result for policy making.

3.0Methodology

This study adopts an ex-post facto research design to examine the impact of human resource accounting on the financial performance of listed commercial banks in Nigeria. The choice of this design is appropriate because the study relies on historical data obtained from the published annual reports and financial statements of the selected listed commercial banks for the period 2016–2025.

The population of this study is made up of those elements that helped generating the data that was used in achieving the objectives of the study. However, the population of the study is made up of all the thirteen (13) Commercial banks listed in NGX as at December, 2025.

Non-probability method was adopted to determine the sample size. This research adopted judgmental sampling technique based on the availability and up-to-date annual financial statements as well as stability in stock exchange market. In view of this, twelve (12) commercial banks listed on the floor of NGX were selected amongst the commercial banks listed in Nigeria Exchange Group. The selected banks include; Access bank, Eco bank, Guaranty Trust bank, First bank Plc, Sterling bank, Zenith bank, First City Monument bank, Fidelity bank, Stanbic IBTC, Unity bank, United Bank for Africa and Wema bank. The 12 listed commercial banks represented the sample size for this study, for a ten (10) year period ranging from 2016-2025. Jaiz bank was eliminated because it does not have complete data needed for the study.

Secondary source of data was employed in this research work. Secondary source of data is the data that already been collected and readily available from other sources.

The data were analyzed using panel Generalized Method of Moments (GMM).

The model is stated thus:

$ROA_{it} = \beta_o + \beta_1 SRM_{it} + \beta_2 STC_{it} + \beta_3 SHSC_{it} + u_i$ ..... model 1

Where;

ROA= Return on Asset

SRM= Staff remuneration costs the model is stated thus;

STC= Staff training costs

SHSC= Staff health and safety costs

i = banks

t = time

β_0 = Intercept

β_1- β_3 = coefficient of the independent variables

u = error term

4.0 Results and Discussions

Descriptive statistics

The descriptive statistics for both the dependent and independent variables are presented in table 4.1 below:

Table 1 Descriptive statistics

	SRM	STC	SHSC	ROA	ROE
Mean	0.803448	0.615966	0.975586	0.021257	0.037256
Median	0.875000	0.580000	1.000000	0.024497	0.079274
Maximum	1.000000	0.780000	1.000000	0.795922	14.12141
Minimum	0.500000	0.420000	0.830000	-0.728652	-25.33779
Std. Dev.	0.142385	0.107033	0.044688	0.127118	1.803192
Skewness	-0.440153	0.116019	-1.736901	-0.702923	-8.085487
Kurtosis	2.210858	1.841423	5.283474	13.44042	149.4794
Jarque-Bera	16.88867	16.87006	208.8188	1340.994	262422.3
Probability	0.000215	0.000217	0.000000	0.000000	0.000000
Sum	233.0000	178.6300	282.9200	6.164405	10.80420
Sum Sq. Dev.	5.859052	3.310780	0.577150	4.669966	939.6843
Observations	120	120	120	120	120

Source: Extracted from E-views

The mean value of SRM is 0.8034, with a median of 0.8750. This indicates that the average level of staff remuneration among the sampled listed deposit money banks was approximately 0.8034 during the period covered by the study. The median being slightly higher than the mean suggests that some relatively lower observations may have pulled the average downward. The minimum and maximum values of 0.5000 and 1.0000, respectively, indicate that staff remuneration varied across the sampled banks, although the range is relatively moderate. The standard deviation of 0.1424 indicates a relatively low dispersion around the mean, suggesting that the banks did not differ excessively in their staff remuneration practices. The negative skewness of -0.4402 indicates a slight left-skewed distribution, while the kurtosis of 2.2109 suggests that the distribution is somewhat flatter than a normal distribution.

STC recorded a mean of 0.6160 and a median of 0.5800, indicating that the average staff training cost was approximately 0.6160. The mean being slightly greater than the median suggests a mild concentration of observations toward the lower end, with some relatively higher training-cost observations increasing the average. The minimum and maximum values of 0.4200 and 0.7800 show that staff training costs varied across the banks. However, the standard deviation of 0.1070 indicates relatively limited variability around the mean. This suggests that the sampled deposit money banks had broadly similar levels of expenditure on staff training. The skewness value of 0.1160 is close to zero, indicating that the distribution is approximately symmetric. The kurtosis of 1.8414 indicates a relatively flatter distribution compared with the normal distribution.

SHSC has a mean of 0.9756 and a median of 1.0000. This indicates that expenditure on staff health and safety was relatively high within the sampled banks. The relatively small difference between the mean and median suggests that the observations are concentrated around the upper end of the scale. The minimum value of 0.8300 and maximum of 1.0000 reveal a relatively narrow range, while the standard deviation of 0.0447 is particularly low. This implies that the sampled banks exhibited very little variation in their staff health and safety costs. The skewness of -1.7369 indicates a substantial negative skew, suggesting that most observations are concentrated toward the higher values, with relatively few observations at the lower end. The kurtosis of 5.2835 indicates a more peaked distribution with heavier tails than the normal distribution.

ROA has a mean value of 0.0213, with a median of 0.0245. This indicates that the sampled listed deposit money banks generated an average return on their assets of approximately 2.13% over the study period. The median value of 2.45% being higher than the mean suggests that some relatively low or negative ROA observations reduced the overall average. The minimum ROA of -0.7287 indicates that at least one bank-year observation recorded a substantial negative return on assets, while the maximum of 0.7959 indicates a very high positive observation. Thus, there was considerable variation in the financial performance of the banks. This is further demonstrated by the standard deviation of 0.1271, which is substantially larger relative to the mean. The negative skewness of -0.7029 suggests that the distribution is moderately left-skewed, while the high kurtosis of 13.4404 indicates the presence of extreme observations or outliers in the ROA series.

The Jarque-Bera statistics and their associated probability values provide evidence regarding the normality of the variables. The probability values for SRM (0.000215), STC (0.000217), SHSC (0.000000), ROA (0.000000) and ROE (0.000000) are all less than the 5% significance level. Consequently, the null hypothesis of normal distribution is rejected for all the variables. This means that none of the variables is normally distributed over the study period.

The non-normality is particularly pronounced for ROA, as reflected in their high kurtosis and extreme skewness. The result suggests the presence of outliers or extreme observations in the financial-performance variables. This is important when interpreting subsequent regression results because the researcher may need to consider appropriate diagnostic tests and, where justified, robust estimation techniques.

Effect of human resource accounting on the return on asset (ROA)

Table 2 provides the summary of the GMM test results of the effect of human resource accounting on ROA based on 1st differences GMM transformations.

Table 2: Test result of the effect of SRM, STC and SHSC on ROA of listed commercial banks in Nigeria

Dependent Variable: ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROA(-1)	0.242051	0.008478	28.55147	0.0000
SRM	-0.080731	0.017046	-4.736099	0.0000
STC	-0.036155	0.029504	-1.225433	0.2217
SHSC	-0.068460	0.075590	-0.905681	0.3661
Cross-section fixed (first differences)				
Mean dependent var	0.000884		S.D. dependent var	0.134177
S.E. of regression	0.149055		Sum squared resid	5.065560
J-statistic	23.18489		Instrument rank	29
Prob(J-statistic)	0.566768			

Source: **Extracted from E-Views**

Table 2 provides results to evaluate the validity of the ROA model using the J-statistic of 23.18489. The probability of the J-statistic is reported as 0.566768. Since the probability of J-stat is greater than threshold of 0.05 set for the study, this result indicates that the model is valid and can be relied upon in predicting the effect of human resource accounting on return on asset. The

value of the beta coefficient for SRM of -0.080731 implies that a unit increase in the number of staff remuneration (SRM) will lead to about 0.080731% decrease in ROA of the listed commercial banks in Nigeria if other factors are held constant. In the same vein, a unit increase in staff training cost (STC) will result to 0.036155% decrease in ROA of listed commercial banks. Finally, a unit increase in Staff health and safety cost (SHSC) will result to 0.068460% decrease in ROA of listed manufacturing company.

Test of staff remuneration cost on return on asset

$H0_1$: Staff remuneration cost has no significant effect on return on asset of listed commercial banks in Nigeria**.**

Results in table 4.6 indicates that the t-statistic for SRM of -4.736099 is significant at 5% level (P-value = 0.0000 < 0.05). Accordingly, **$H0_1$** is rejected, and the conclusion is that staff remuneration cost has a significant effect on return on asset of listed commercial banks in Nigeria.

Test of staff training cost on return on asset

$H0_2$: Staff training cost does not have any significant effect on return on asset of listed commercial banks in Nigeria**.**

Results in table 4.6 indicates that the t-statistic for STC of -1.225433 is not significant at 5% level (P-value = 0.2217 > 0.05). Accordingly, **$H0_2$** is accepted and the conclusion is that staff training cost does not have any significant effect on return on asset of listed commercial banks in Nigeria.

Test of staff health and safety cost on return on asset

$H0_3$: Staff health and safety cost has no significant effect on return on asset of listed commercial banks in Nigeria**.**

Results in table 4.6 indicates that the t-statistic for SHSC of -0.905681 is not significant at 5% level (P-value = 0.3661 > 0.05). Accordingly, **$H0_3$** is accepted and the conclusion is that Staff health and safety cost has no significant effect on return on asset of listed commercial banks in Nigeria.

5.0 Conclusion and Recommendations

Conclusion

This study examined the impact of human resource accounting on the financial performance of listed commercial banks in Nigeria, using staff remuneration, staff training cost, and staff health and safety cost as measures of human resource accounting, while return on assets and return on equity were used as measures of financial performance.

The findings provide evidence that investment in human resources has different implications depending on the dimension of financial performance considered. Specifically, the study found that staff remuneration has a significant effect on ROA, indicating that expenditure on employees through salaries, wages and related remuneration contributes meaningfully to the ability of listed commercial banks to generate returns from their asset base. However, staff training cost and staff health and safety costs were found to have no significant effect on ROA. This suggests that although training and employee welfare constitute important investments in human capital, their benefits may not necessarily translate into immediate improvements in asset-based profitability.

Recommendations

Based on the findings of the study, the following recommendations are made:

(i) The management of listed commercial banks should maintain appropriate and competitive remuneration structures. Banks should ensure that salaries, allowances, incentives and other employee benefits are adequately linked to employee productivity and organisational performance.

(ii) Banks should not reduce training expenditure merely because its immediate effect on asset-based profitability is insignificant. Rather, management should focus on the quality, relevance and effectiveness of training programmes.

(iii) Banks should continue to provide appropriate healthcare, occupational safety measures, wellness programmes and supportive working environments. Management should view such expenditure as an investment in employee capacity rather than merely as an administrative cost.

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