

Human capital cost and financial performance: Evidence from listed agricultural companies in Nigeria

Korolo, Emmanuel Omolaye*

Department of Accounting, Federal University Otuoke, Bayelsa State, Nigeria

Corresponding author: koroloemmanuel@yahoo.com

<https://doi.org/10.33003/fujafr-2026.v4i3.394.60-72>

Abstract

Purpose: This study examined the effect of human capital cost on the financial performance of listed agricultural companies in Nigeria within the context of the evolving digital economy. Specifically, it investigated the influence of staff remuneration cost, staff training cost, and health and safety cost on earnings per share (EPS).

Methodology: An ex post facto research design was adopted using secondary data obtained from the audited annual reports of five agricultural companies listed on the Nigerian Exchange Group (NGX) for the period 2009-2024. A census sampling technique was employed because all firms with complete financial data were included. Panel data were analyzed using the Estimated Generalized Least Squares (EGLS) technique to account for panel-specific heterogeneity.

Results and Conclusion: The findings revealed that staff remuneration cost has a positive and statistically significant effect on earnings per share, indicating that competitive employee compensation enhances financial performance. In contrast, staff training cost and health and safety cost exhibited positive but statistically insignificant effects on earnings per share. The study concludes that employee remuneration remains a key driver of financial performance. At the same time, the benefits of training and health and safety investments may require longer periods and stronger alignment with digital transformation initiatives to generate significant financial returns.

Implications of Findings: The study recommends that agricultural firms sustain competitive remuneration policies to attract and retain digitally competent employees, redesign training programmes to strengthen digital capabilities, and integrate occupational health and safety practices with emerging digital technologies to improve workforce productivity and long-term organizational competitiveness.

Keywords: Earnings per share; Financial performance; Health and safety costs; Human capital costs; Listed agricultural companies; Staff remuneration costs; Staff training costs.

1. Introduction

In the past decade, businesses all over the world have become more aware that their employees' skills, creativity, and productivity are just as important to their performance as tangible assets or financial capital. Human capital has been identified as a critical driver of an organization's performance, described as the productive abilities of its employees, knowledge, and skills (Akdere & Egan, 2022; Korolo & Korolo, 2024). The more staff tend to acquire, the more the productive abilities, knowledge, and skills of its employees increase. This, in turn, enables them to show superior performance while actively participating in knowledge sharing, which may generate new ideas, enhance working procedures, or create new products. Corporate annual reports, existing related literature, and various human capital models were critically and systematically reviewed to conceptualise different views from various authors concerning human capital measurement and disclosure framework (Mpofu & Sebele-Mpofu, 2023).

Human resources are critical assets to the organization and significant in the generation of value. To this end, human resources should be capitalized rather than expensed on the financial statements (Emovon & Ibadin, 2024). Most organizations refer to their human resources (HR) as a significant value-creating asset but fail to recognize them in financial statements (Nagalingam, 2022). This gap between the true value created by employees and the value captured in financial statements has led to the pursuit of more reliable and informative measures of human capital in accounting.

Human Capital Cost has been the subject of much scholarly and professional discourse in this context. It has been described by researchers as an emerging management practice which focuses on bridging the gap between what employees actually contribute and what contribution is captured in financial statements (Yikarebogha & Adesola, 2025). Although there were slight differences of opinion, a majority of the writers hold the view that human capital cost is an act of recognising the fact that employees can be regarded as assets that would generate future benefits as opposed to viewing them as emanations of overhead cost (Odewusi & Adegbe *et al.*, 2025). For instance, Adeolu (2023) holds a very strong view on the cost side that payment of staff remuneration, investment in training for employees, and in their health and safety should be treated as capital cost on the basis that they yield long-term benefits to the organisation. Another group tends to focus on the value side of things, insisting that workers should be paid for the financial benefits they generate, which include higher output, better customer service, enhanced corporate reputation, etc. It doesn't matter what way you look at it, both views agree on the importance of companies considering human capital a strategic asset.

Based on these academic perspectives, Human Capital Cost encompasses various aspects, including valuation methods, disclosure practices, and the broader impact on organizational performance. Existing research reveals that human capital is still often treated as an expense rather than an asset capable of generating future economic benefits (Prasetia & Maisarah, 2025). Human Capital Cost is intended to reflect investment in people as an element that has a bearing on company progress, survival, and shareholder value, and not simply holding employee-related information as payroll cost (Balogun & Adebayo *et al.*, 2023).

A firm's financial performance is considered one of the key measures to evaluate the efficiency of the firm in utilizing its resources to achieve its objectives. It indicates a business's ability to generate revenue and maintain operational efficiency, as well as add value to shareholders in the future (Akinyemi & Bello, 2024). Financial success is an indicator of overall organizational vitality, strategy change, and sustainability rather than just earnings. (Balogun & Adebayo *et al.*, 2023).

From the preceding, it can be observed that financial performance is critical to understanding an organization. When it is evaluated, it allows executives and shareholders to better decide on investments, how to allocate resources, and growth strategies (Emovon & Ibadin, 2024). Furthermore, it reveals the organization's effectiveness in converting inputs such as human, physical, and financial capital into tangible returns (Odewusi & Adegbe *et al.*, 2025).

The financial outcomes are commonly measured in modern business research through variables that can best represent the profitability, efficiency, and value creation of the company. These ratios give the stakeholders a glimpse of the company's performance against the rest of the industry and market expectations (Okafor & Yusuf, 2025). All in all, financial performance provides a critical indicator for measuring success in an organization, developing strategic actions, and maintaining competitive advantage (Yikarebogha & Adesola, 2025).

Moreover, financial performance can be used as a yardstick to measure and compare companies, irrespective of the sector and the industry they belong to. It has strategic and operational implications and is frequently used as a baseline for determining investment risk and potential return (Kirfi & Abdullahi, 2023). Companies can also identify signals of underperformance at an early stage and take corrective actions to improve long-term stability when financial performance is regularly reviewed (Nwayotalu & Okoro *et al.*, 2024).

Finally, corporate governance and accountability are innately connected to financial performance. Companies that keep track of, as well as report their financial performance regularly, are transparent, attract investors, and pave the way for sustainable business success (Balogun & Adebayo *et al.*, 2023). In addition, as resources generated from successful businesses are likely to be invested in staff development, welfare, and training, strong financial performance is associated with support for employees (Emovon & Ibadin, 2024).

There are conflicting reports on the financial effect of human capital costs on publicly traded companies in Nigeria (Balogun & Omotoye *et al.*, 2020; Ogunbiyi & Alao *et al.*, 2023), so it remains challenging to ascertain the effect of human capital costs on the financial performance of listed companies in Nigeria. One study claimed that human cost-associated activities, such as staff remuneration costs for employees, staff training costs, health and safety costs, and others, were positively related to financial performance (Balogun & Omotoye *et al.*, 2020). On the other hand, these same indicators appear to have weak or no impact in another study (Korolo & Korolo, 2024). Such contradictions pose a challenge for the stakeholders when they rely on previous findings for decision-making about investment in human resources development in the agricultural sector.

These inconsistencies can largely be attributed to differences in the economic conditions and study periods examined in previous research (Balogun & Omotoye *et al.*, 2020; Ogunbiyi & Alao *et al.*, 2023). Studies conducted during relatively stable economic periods generally reported stronger positive relationships, whereas those undertaken amid high inflation, policy shifts, and sector-specific disruptions produced mixed or inconclusive findings. These variations suggest that historical evidence may not adequately reflect current policy realities, as economic growth is inherently dynamic and can be modelled as a non-stationary process that responds to changing macroeconomic and institutional conditions. Consequently, findings from earlier studies may have limited applicability in explaining contemporary economic outcomes.

To this end, the paper investigates a recent 15year period, 2006-2024, to capture the prevailing sectoral and economic conditions and examines how human capital costs, i.e., staff remuneration costs, staff training costs, and health and safety costs, affect the financial performance of the listed Agricultural Companies in Nigeria.

2. Literature review

Obiazi (2025) investigated the Nexus between Human Capital Cost and Financial Performance of listed commercial banks in Nigeria. Using secondary data from audited financial reports and the Nigerian Stock Exchange fact book for the years 2009 to 2023, the study used an ex-post facto research design and covered a population of fifteen listed commercial banks. Multiple regression analysis and descriptive statistics were used to analyze the data. The results showed that the banks' financial performance and training expenses varied significantly, suggesting that their approaches to investing in human capital differed. Return on assets was found to be positively and significantly correlated with health and safety costs, but not with training costs. The study also showed that bank performance is influenced by variables other than health-safety expenses and training. To improve financial performance, the report suggested boosting employee health and safety spending, reevaluating training tactics, and using more comprehensive human capital management techniques.

Korolo (2025) empirically examined the nexus between human resource accounting and the financial performance of listed insurance companies in Nigeria. Using secondary data from the annual reports of

ten chosen insurance companies listed on the Nigerian Exchange Group for the years 2020 to 2024, the study used an ex-post facto and descriptive research approach. Data were analyzed using descriptive and inferential statistics, particularly panel regression analysis, with pre- and post-estimation tests using EViews 10 software. Judgmental sampling was used. The results showed that while gratuity payments have a substantial negative impact on profitability, staff training and development expenses have a significant beneficial impact on net profit margin. Despite having a negative relationship, salaries and earnings were not statistically significant. To ensure sustainable profitability, the study concluded that human resource accounting is crucial to improving the financial performance of insurance companies. It also advised businesses to invest more in employee training, uphold equitable compensation practices, and implement sensible gratuity obligation management strategies.

Oladejo and Abimbola et al. (2024) examined *Human Resource Accounting and Financial Performance of Listed ICT Companies in Nigeria*. The number of employees, gross staff cost, and HRA-related expenses were used to measure human resource accounting, whereas organizational profitability, return on equity, return on assets, and human capital efficiency were used to measure financial performance. Using secondary data from the financial reports of ICT companies listed on the Nigerian Exchange Group, the study used a descriptive research approach and spanned the years 2013 to 2022. Descriptive and inferential statistics were used to analyze the data, and a purposeful sampling strategy was used. The results showed a strong correlation between financial performance and human resource accounting. The report suggested spending more on human resources to boost Nigerian businesses' competitiveness and productivity.

Ozegbe (2025) examined the relationship between human capital accounting and the financial performance of listed manufacturing firms in Nigeria, highlighting how important human capital is to optimizing the efficient and successful utilization of organizational resources. Using secondary data from the Securities and Exchange Commission platform, the study used mathematical modeling tools and a descriptive design. Regression analysis was used to examine data from listed industrial companies between 2010 and 2019. The results showed that the costs of hiring new employees and staff all had a negative correlation with return on assets, meaning that higher expenses were linked to worse financial results. Overall, the study found no connection between the financial performance of Nigerian listed manufacturing companies and human capital accounting. Based on these results, the study suggested that in order to increase worker productivity and boost financial performance, industrial companies should implement the practice of capitalizing and appropriately reporting human capital expenditures.

Okpolosa (2024) examined the relationship between human capital costs and financial performance of listed industrial goods manufacturing firms in Nigeria, with technology serving as a moderating variable. The study used an ex post facto research design and was based on Human Capital Theory. Ten of the thirteen listed industrial goods manufacturing companies on the Nigerian Exchange Group were chosen using a non-probability sampling technique. The analysis made use of secondary data. The results showed that whereas technology had a positive and significant moderating effect on the relationship between human capital cost and financial performance, staff welfare costs had a negative and negligible relationship with return on equity. The study came to the conclusion that investments in human capital are more beneficial as technology advances. It was suggested that to enhance skills, productivity, operational effectiveness, and overall financial success, companies should give strategic investment in staff training and development top priority.

Eyinemi (2025) examined the moderating effect of firm size on the relationship between human capital expenditure and financial performance of consumer goods companies in Nigeria. The quantitative research design of the study utilized panel data of some consumer goods firms listed on the Nigerian Exchange Group. Return on assets, return on equity, and net profit margin were the indicators of financial performance, while human capital investments were measured in terms of staff-related costs such as salaries, health and safety, and training costs. The model included firm size as well as other control variables, and correlation and regression analysis were employed. The findings revealed a significant positive association between financial performance and investment in human capital, indicating that firms that invest in their employees experience better financial performance. To sustain a competitive advantage, consumer goods companies should focus on coherent human capital approaches, as the present study concludes that investment in human capital increases productivity, innovation, and operational efficiency.

Akaegbobi and Onukelobi et al. (2025) investigated the impact of human resource accounting on the financial performance of money deposit banks in Nigeria. Specifically, the study examined the impact of staff remuneration, staff training, and cost of healthcare on the financial performance of deposit money banks in Nigeria. The study adopted the ex-post facto research design. Data were sourced from annual published accounts of deposit money banks listed on the Nigerian Stock Exchange for the period 2018-2022. Descriptive statistics and correlation were used in the analysis of data. Panel analysis was further used to test the hypotheses. Findings from the investigation revealed that staff remuneration, cost of health care and safety have no significant effects on EPS, while cost of staff training has a significant effect on EPS of the sampled listed money deposit banks. The study, therefore, recommended the need for staff remuneration to be improved so that banks' staff can put in their best to achieve better performance.

Eyinemi (2025) investigated the relationship between human capital expenditure and financial performance of consumer goods companies in Nigeria. The study used a correlational research design within the positivist philosophy and was based on resource-based theory, equity theory, and human capital theory. All 20 consumer goods businesses listed on the Nigerian Exchange Group made up the population and sample. Secondary data were sourced between 2013 and 2023. Product Moment Correlation and linear regression analyses were used to address the research questions, and the hypotheses were tested using Ordinary Least Squares and moderated regression analysis. The findings revealed a strong and significant relationship between training and development expenditure and earnings yield, but a weak and insignificant relationship between training and development expenditure and return on capital employed. To increase earnings yield and capital efficiency, the study concluded that investing in staff training improves several aspects of financial performance and encouraged consumer goods companies to prioritize policies that support employee training and technical skill acquisition.

Korolo and Korolo (2024) examined the relationship between human resource costs and corporate financial performance of listed deposit money banks in Nigeria. Human resource costs were measured using directors' remuneration cost, salaries and wages cost, and pension and gratuity cost, while corporate financial performance was proxied by earnings per share (EPS). Using secondary data from the annual reports of specific banks listed on the Nigerian Exchange Group, the study used an ex post facto research design. Regression analysis was used to investigate the data. The results showed that while salaries and wages have a significant negative effect on earnings per share, directors' remuneration costs,

pension costs, and gratuity costs do not significantly affect earnings per share. According to the study's findings, listed deposit money banks in Nigeria do not considerably improve their corporate financial performance by investing in human resources. In order to increase performance, it suggested personnel rationalization and a stronger focus on training and retraining productive workers.

Ilugbo and Ozele (2024) investigated the impact of Human Resource Accounting on the share price performance of listed insurance firms in Nigeria. Human capital efficiency, structural capital efficiency, capital employed efficiency, and the value-added intellectual capital coefficient (VAIC) were used as independent variables, while share price performance served as the dependent variable. The study adopted ex post facto and descriptive research designs, using secondary data from 13 insurance firms listed on the Nigerian Exchange Group between 2012 and 2021. Multicollinearity and heteroskedasticity were taken into consideration using random effects regression analysis. The results showed that while VAIC had a significant negative impact, human capital efficiency and capital employed efficiency significantly improved share price performance. In order to increase employee productivity, creativity, and overall financial performance, insurance companies should prioritize human capital development through focused training and ongoing professional development, according to the study's conclusion that investing in human capital is crucial for enhancing market valuation.

H₀₁: There is no significant relationship between staff remuneration cost and earnings per share of listed agricultural companies in Nigeria.

H₀₂: There is no significant relationship between staff training cost and earnings per share of listed agricultural companies in Nigeria.

H₀₃: There is no significant relationship between health care and safety cost and earnings per share of listed agricultural companies in Nigeria.

2.2 Theoretical Review

2.2.1 Human Capital Theory

The Human Capital Theory posits that the individual's attributes, including skills, knowledge, experience, and capabilities, define their economic value and thus affect the performance of the organization. Education, training, and development are considered investments that serve to increase the productivity and the value of an employee to the organization (Becker, 1964; Schultz, 1981). From this view, workers are not simply inputs in production, but are assets whose enhanced capabilities through training and development have the potential to increase an organization's efficiency, innovativeness, and competitive positioning (Schultz, 1981; Becker, 1964). Human capital is also a source of competitive advantage, and those organizations that strategically develop the capabilities of their human resources are more likely to achieve higher levels of sustained superior performance because human capital has a direct impact on the efficiency of work processes and an organization's ability to address problems (Investopedia; Human capital theory, 2025).

3. Methodology

This study employed an ex post facto research design using panel data obtained from the audited annual reports of agricultural firms listed on the Nigerian Exchange Group (NGX) as at 31st December, 2024. The study covered the period 2009-2024, yielding a balanced panel of five (Ellah Lakes Plc, Ftn Cocoa

Processors Plc, Livestock Feeds Plc, Okomu Oil Palm Plc, and Presco Plc) listed agricultural firms. A census approach was adopted because the population comprised only five firms with complete financial information throughout the study period. Financial performance, the dependent variable, was proxied by Earnings per Share (EPS), while human capital cost was measured using the actual costs incurred on staff remuneration, staff training, and health and safety, as reported in the audited annual financial statements of the sampled firms. The variable measurements were adopted from established studies to ensure consistency with the existing literature (Ajayi & Adegbite (2022); Akinjare *et al.* (2019); Ndum & Oranefo (2021); Ajayi & Adegbite (2022); Olaoye & Afolalu (2020); Olayinka & Adegbie (2020). The study employed Generalized Least Squares (GLS) for estimation because it produces efficient and consistent parameter estimates in the presence of heteroskedasticity and serial correlation, which are common characteristics of panel data. All statistical analyses were conducted at the 5% level of significance.

4. Results and discussion

The analysis of descriptive statistics is hereby performed to find out the properties of the data. Table 4.1 shows the data characteristics, which include the total number of observations, means, standard deviation, probability of Jarque-Bera statistics, and their respective minimum and maximum values of the six (6) agricultural companies quoted on the Nigerian Exchange Group from 2009 to 2024.

4.1 Univariate Analysis of Descriptive Statistics.

We use the raw data for the descriptive statistics analysis, correlation analysis, and unit root test.

Table 4.1: Descriptive Statistics

Variables	Number of Observations	Mean	Std Deviations	Maximum	Minimum
EPS(-1)	108	-0.4165	14.78422	30.2300	-67.0000
SRC	108	2943784.0000	7959606.0000	54616557.0000	20746.0000
STC	108	44497.3200	89752.8900	602387.0000	225.0000
HSC	108	102979.1000	191566.300	1333792.0000	177.0000

Source: Researcher's Computations (2026) Using EViews13 Software.

The statistics in Table 4.1 above show the mean values of the variables as well as the standard deviations, the minimum and the maximum values. All the variables of interest have maximum values which are greater than their respective minimum values. However, the mean values of all the variables of interest are lower than their respective standard deviation values (Mean<SD). This shows that these variables do have outliers in their data set and so do have a high gap between the highest and lowest values for the last 15 years, meaning that the averages are quite low (Lestari & Setiany, 2023).

4.2 Bivariate Data Analysis (Correlation Analysis)

The correlation analyses among the variables are meant to first determine the association between each pair of the dependent and independent variables as well as among the explanatory variables. It reflects the relative strength of the relationship between the explanatory variables.

The degree of association may be weak (0.00 to 0.5), moderate (0.51 to 0.8), or high (0.81 and above). A very high association among the regressors poses a problem of multicollinearity. According to Gujarati (2004), multicollinearity could only be a problem if the correlation coefficient between regressors is above 0.80. From the information obtained from Table 4.2 above, it can be seen that there is an absence of multicollinearity since all the variables are weakly correlated.

Table 4.2: Correlation Statistics

Covariance Correlation	EPS	SRC	STC	HSC
EPS	216.6559 1.0000			
SRC	-5587516.0000 -0.0479	6.28E+13 1.0000		
STC	152326.4000 0.1158	13862537.00 1.96E-05	7.98E+09 1.0000	
HSC	327604.2000 0.1166	1.23E+11 0.0813	5.86E+09 0.3439	3.64E+10 1.0000

Source: Researcher's Computations (2026) Using EViews13 Software.

4.3.2. Estimation of the Dynamic Regression Models.

To determine the effect of corporate human capital cost and financial performance of listed agricultural companies in Nigeria. The dynamic Panel Estimated Generalized Least Squares (PEGLS) method of estimation, as shown in Table 4.4 below, is used to examine the relationship between the independent variables (SRC, STC, and HSC) and the dependent variable (EPS).

Table 4.4: Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPS(-1)	0.3491	0.1016	3.4369	0.0009
SRC	3.39E-07	1.45E-07	2.3389	0.0218
STC	1.76E-06	1.40E-05	0.1254	0.9005
HSC	2.26E-06	7.36E-06	0.3065	0.7599
C	-1.2451	1.3382	-0.9304	0.3549

Effects Specification

Cross-section fixed (dummy variables)

Period fixed (dummy variables)

R-squared	0.6684	Mean dependent var	0.0795
Adjusted R-squared	0.5621	S.D. dependent var	14.4317
S.E. of regression	9.5502	Akaike info criterion	7.5633
Sum squared resid	7387.7090	Schwarz criterion	8.2339
Log likelihood	-381.4192	Hannan-Quinn criter.	7.8352
F-statistic	6.2823	Durbin-Watson stat	1.8829
Prob(F-statistic)	0.0000		

Source: Researcher's Computations (2026) Using EViews13 Software.

4.4 Hypotheses Testing.

Earlier in Chapter One, it was stated that each of our independent variables in their null forms will be subjected to a statistical test, and the result of the test will either be accepted or rejected at the 5% significance level. If the p-value of that explanatory variable is less than or equal to 5% (0.05), then there is a significant relationship between this explanatory variable and the dependent variable, and so we reject the null hypothesis. If, however, the p-value of that explanatory variable is greater than 5% (0.05), then the null hypothesis is accepted that there is no significant relationship. We, therefore, restate each hypothesis and test for either acceptance or rejection based on its respective probability value (p-value).

H₀₁: Staff remuneration cost has no significant relationship with the financial performance of listed agricultural companies in Nigeria

The coefficient of SRC is positive (3.39E-07) and significant with a t-Statistic (2.3389) and a p-value (=0.0218) at the 2.18% level of significance. The p-value is about 2%, which is less than 5%, and so we reject the null hypothesis that SRC has no significant relationship with firm performance.

H₀₂: Staff training cost has no significant relationship with the financial performance of listed agricultural companies in Nigeria

The coefficient of STC is positive (1.76E-06) but insignificant, with a t-Statistic (0.1254) and a p-value (=0.9005) at the 90.05% level of significance. The p-value is about 90%, which is greater than 5%, and so we accept the null hypothesis that STC has no significant relationship with financial performance.

H₀₃: Health and safety cost has no significant relationship with financial performance of listed agricultural companies in Nigeria

The coefficient of HSC is positive (2.26E-06) but insignificant, with a t-Statistic (0.3066) and a p-value (=0.7599) at the 75.99% level of significance. The p-value is about 76%, which is greater than 5%, and so we accept the null hypothesis that HSC has no significant relationship with financial performance.

4.5 Discussion of the Regression Results from Table 4.4.

The coefficient of **SRC (3.39E-07)** is positive and statistically significant (p-value = 0.0218). The result indicates that staff remuneration cost has a positive and significant effect on the financial performance of the sampled firms. Specifically, an increase in staff remuneration cost is associated with an improvement in profitability, holding other variables constant. The positive sign of the coefficient is consistent with the a priori expectation, suggesting that competitive remuneration motivates employees, improves productivity, enhances job satisfaction, and ultimately contributes to better financial performance. This finding is supported by the studies of Major and Biragbara (2023), Okafor et al. (2022), Atoyebi et al. (2024), Omodero et al. (2016), and Ndum and Oranefo (2021), all of whom found that staff costs or employee remuneration exert a positive and significant effect on corporate financial performance. However, the finding is not supported by Korolo and Korolo (2024), who found that salaries and wages had a significant negative effect on earnings per share; Ajayi and Oluwasesin (2025), who reported that salaries and wages negatively affected profitability; and Nnamani et al. (2024), who found that wages and salaries had no significant effect on profitability.

The coefficient of STC (1.76E-06) is positive but statistically insignificant (p-value = 0.9005). The result indicates that staff training cost has a positive but insignificant effect on the financial performance of the sampled firms. This suggests that although increased expenditure on staff training tends to improve profitability, the effect is not statistically significant during the study period. The positive coefficient is consistent with the a priori expectation and may indicate that the benefits of training are realized over a

longer period rather than immediately. This finding is supported by Atoyebi et al. (2024), who found that training costs had a positive but insignificant effect on financial performance; Obiazi (2025), who reported that training costs had no significant relationship with return on assets; and Nnamani et al. (2024), who found that employee training and development costs had no significant effect on profitability. However, the finding contradicts Korolo (2025), Eyinemi (2025), Oyetola et al. (2024), Odobi et al. (2022), and Akaegbobi et al. (2025), who reported that staff training expenditure has a positive and significant effect on financial performance. It is also inconsistent with Major and Biragbara (2023), who found a significant negative effect of training and development costs on return on assets.

The coefficient of HSC (2.26E-06) is positive but statistically insignificant (p -value = 0.7599). The result indicates that health and safety costs have a positive but insignificant effect on the financial performance of the sampled firms. This implies that increased expenditure on employee health and safety contributes positively to profitability, although the effect is not statistically significant. The positive sign is consistent with the a priori expectation because investment in employee health and workplace safety improves employee well-being, reduces absenteeism and workplace accidents, and enhances productivity. This finding is supported by Obiazi (2025), who found that health and safety costs positively and significantly influenced return on assets, and Onuoha (2021), who emphasized that investments in employee health programmes enhance corporate financial performance. However, the finding is inconsistent with Major and Biragbara (2023), who reported a negative and insignificant effect of health and safety expenditure on financial performance; Yikarebogha and Adesola (2025), who found no significant relationship between health and safety costs and financial performance; and Akaegbobi et al. (2025) and Odobi et al. (2022), who reported that health care and safety costs had no significant effect on the financial performance of deposit money banks.

5. Conclusion

This study investigated the effect of human capital cost on the financial performance of agricultural companies listed on the Nigerian Exchange Group (NGX) over the period 2009-2024. Using the Estimated Generalized Least Squares (EGLS) technique, the findings revealed that staff remuneration cost exerts a positive and statistically significant influence on earnings per share (EPS), underscoring the importance of competitive employee compensation in enhancing organizational financial performance. Conversely, staff training cost and health and safety cost exhibited positive but statistically insignificant effects on EPS, suggesting that while these investments may support employee well-being and organizational productivity, their financial benefits may not be immediately reflected in firm performance. Overall, the study concludes that investment in employee remuneration is a critical determinant of financial performance among listed agricultural firms in Nigeria. However, the effectiveness of training and health and safety expenditures depends on their strategic design, implementation, and alignment with organizational goals to generate sustainable long-term value.

Recommendations

Based on the findings, the study recommends that management of listed agricultural firms should maintain competitive remuneration policies to attract, motivate, and retain skilled employees capable of improving organizational productivity and profitability. In addition, firms should redesign staff training programmes to focus on competency development, technological innovation, and job-specific skills that directly enhance operational efficiency and financial outcomes. Management should also strengthen health and safety initiatives by implementing regular monitoring and performance evaluation mechanisms to ensure that such expenditures translate into improved employee wellbeing, reduced

workplace risks, and higher productivity. Finally, organizations should adopt periodic assessments of all human capital investments to ensure that resources allocated to employee development are effectively utilized and contribute to sustained financial performance and long-term corporate competitiveness.

Reference

- Adegoke, T. A., Ogunleye, O. O., & Sanni, M. K. (2024). Financial performance and corporate sustainability of listed firms in Nigeria. *Nigerian Journal of Accounting and Finance*, 18(2), 112–130.
- Aguinis, H., & Kraiger, K. (2021). Benefits of training and development for individuals and teams. *Annual Review of Organizational Psychology and Organizational Behavior*, 8(1), 451–474.
- Ajayi, O. M., & Adegbite, T. A. (2022). Earnings per share and firm valuation in Nigeria. *African Journal of Financial Studies*, 10(2), 88–104.
- Ajayi, O. M., & Oluwasesin, A. O. (2025). Human capital expenditure and profitability of listed consumer goods firms in Nigeria. *Journal of Contemporary Accounting Research*, 12(1), 55–73.
- Akaegbobi, I. M., Okoye, E. I., & Nwoye, U. J. (2025). Human resource accounting and financial performance of deposit money banks in Nigeria. *International Journal of Banking and Finance Research*, 9(2), 140–159.
- Akinjare, V. A., Olalekan, A. J., & Adeyemi, S. B. (2019). Financial ratios and corporate performance in Nigeria. *Journal of Accounting and Economic Development*, 7(1), 66–84.
- Amah, E., & Amauwa, J. (2023). Human capital investment and firm performance in emerging economies. *African Journal of Business Management*, 17(3), 95–109.
- Aman-Ullah, A., Aziz, A., & Ibrahim, H. (2022). Human capital efficiency and firm performance: Evidence from emerging markets. *Journal of Intellectual Capital*, 23(4), 789–807.
- Asuquo, A. I., Eyo, E. E., & Effiong, J. B. (2024). Employee remuneration and organizational performance in Nigeria. *International Journal of Human Resource Studies*, 14(1), 33–50.
- Atoyebi, K. O., Adekunle, A. O., & Bello, M. A. (2024). Human capital expenditure and financial performance of insurance firms in Nigeria. *Journal of Risk and Financial Management*, 17(2), 75–92.
- Balogun, A. O., & Adebayo, T. O. (2023). Human capital investment and corporate value creation. *Journal of African Business Research*, 15(2), 120–138.
- Balogun, A. O., Ogunleye, O. O., & Sanni, M. K. (2020). Human capital cost and financial performance of listed firms in Nigeria. *Nigerian Journal of Management Sciences*, 8(1), 44–61.
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis*. University of Chicago Press.
- Boateng, K., Mensah, P., & Ofori, D. (2023). Human capital investment and sustainability performance. *Sustainability Accounting Journal*, 11(3), 201–220.
- Ebe, F. E., Okafor, C. N., & Obi, J. N. (2023). Employee compensation and firm productivity in Nigeria. *Journal of Human Resource and Organizational Studies*, 9(1), 77–94.
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57–74.
- Emovon, E., & Ibadin, P. O. (2024). Human capital accounting and financial reporting in Nigeria. *Nigerian Journal of Accounting Research*, 20(1), 90–108.
- Eyinemi, C. O. (2025). Human capital expenditure and financial performance of consumer goods firms in Nigeria. *Journal of Business and Economic Policy*, 12(2), 102–121.
- Ezeagba, C. E. (2016). Human capital development and financial performance of banks in Nigeria. *International Journal of Economics and Finance*, 8(4), 123–135.
- Freeman, R. E., Harrison, J. S., & Zyglidopoulos, S. (2020). *Stakeholder theory: Concepts and strategies*. Cambridge University Press.
- Gujarati, D. N. (2004). *Basic econometrics*. McGraw-Hill Companies, New York

- Ikpefan, O. A., Owolabi, F., & Agwu, M. (2016). Human capital development and performance of microfinance banks. *Journal of Banking and Financial Services*, 10(2), 88–106.
- Ilugbo, S. O., & Ozele, M. A. (2024). Human resource accounting and share price performance of insurance firms. *African Journal of Capital Markets*, 6(1), 51–69.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior and agency costs. *Journal of Financial Economics*, 3(4), 305–360.
- Jibir, A., Musa, S., & Abubakar, M. (2022). Human capital investment and labour productivity in Nigeria. *Journal of Economic Development Studies*, 14(3), 67–85.
- Kadiri, M. A., Adeyemi, A. O., & Bello, S. A. (2023). Occupational safety cost and project performance. *Journal of Construction Economics*, 9(2), 122–140.
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2020). *Intermediate accounting* (17th ed.). Wiley.
- Korolo, A. S., & Korolo, E. O. (2024). Human resource cost and corporate financial performance of listed deposit money banks in Nigeria. *Fudma Journal of Accounting and Finance Research [FUJAFR]* 2(2), 56–70.
- Korolo, E. O. (2023). Corporate Governance Attributes and Financial Performance of Listed Industrial Goods Companies in Nigeria. *Fudma Journal of Accounting and Finance Research [FUJAFR]* 1(3), 40–51.
- Korolo, E. O. (2025). Human resource accounting and financial performance of insurance firms in Nigeria. *Nigerian Journal of Accounting and Finance*, 19(1), 75–96.
- Korolo, E. O., & Korolo, K. E. (2024). Human resource cost and corporate financial performance of banks in Nigeria. *Journal of Financial Reporting and Accounting*, 22(2), 144–162.
- Korolo, S. A., & Korolo, E. O. (2025). Cash flow Management and Financial Performance of the Industrial Goods Sector in Nigeria. *FUDMA Journal of Accounting and Finance Research [FUJAFR]*, 3(2), 154–167.
- Lestari, F. D. & Setiany, E. (2023). The impact of governance, audit quality, and financial performance on increasing corporate value. *International Journal for Multidisciplinary Research (IJFMR)*, 5(2), 1–17.
- Major, P. E., & Biragbara, D. N. (2023). Human capital cost and financial performance of healthcare firms. *International Journal of Health Economics*, 5(2), 98–117.
- Micah, L. C., Ofurum, C. O., & Ihendinihu, J. U. (2012). Human resource accounting disclosure and firm performance. *Journal of Accounting and Finance*, 12(3), 45–58.
- Moses, T., & Ayuba, A. (2025). Human capital accounting and firm performance in Nigeria. *Journal of Modern Accounting Research*, 11(1), 66–84.
- Mpofu, T., & Sebele-Mpofu, F. Y. (2023). Human capital disclosure and corporate reporting practices. *Meditari Accountancy Research*, 31(2), 300–320.
- Ndum, V. E., & Oranefo, P. C. (2021). Human resource cost and financial performance of brewery firms. *Nigerian Journal of Management Sciences*, 9(1), 33–52.
- Noe, R. A. (2020). *Employee training and development* (8th ed.). McGraw-Hill.
- Obiazi, J. O. (2025). Human capital cost and financial performance of banks in Nigeria. *Journal of Banking and Financial Economics*, 13(1), 120–138.
- Ogunbiyi-Davies, A., Akinyemi, O., & Salami, K. (2023). Financial reporting quality and firm performance. *Journal of Accounting in Emerging Economies*, 13(2), 211–230.
- Ojo, A. O., Adewale, R. O., & Lawal, M. A. (2024). Occupational health and safety systems in Nigerian firms. *Journal of Workplace Safety*, 8(1), 60–78.
- Okafor, T. G., Nwankwo, J. N., & Eze, C. U. (2022). Human resource expenditure and financial performance of manufacturing firms. *International Journal of Accounting and Finance*, 11(3), 89–107.

- Okere, W., & Igba, I. (2023). Human capital investment and firm performance in Nigeria. *Journal of Business Research and Development*, 10(2), 101-119.
- Okpolosa, L. I. (2024). Human capital cost and financial performance of industrial firms. *Journal of Industrial Economics*, 7(1), 55-73.
- Oladejo, M. O., Akinwale, A. A., & Bello, T. A. (2024). Human resource accounting and ICT firm performance. *Journal of Information Systems and Accounting*, 6(2), 88-106.
- Olaniyi, O. O., & Olanrewaju, A. O. (2022). Financial ratios and firm performance in Nigeria. *Journal of Financial Analysis*, 9(2), 45-63.
- Omodero, C. O., Ekwe, M. C., & Ihendinihu, J. U. (2016). Human resource costs and firm performance in Nigeria. *International Journal of Accounting Research*, 4(2), 20-35.
- Onuoha, B. C. (2021). Human capital and corporate financial performance. *Journal of Business Strategy*, 12(3), 134-152.
- Osemeke, L. (2017). Human capital accounting and corporate performance. *Journal of Accounting and Finance in Emerging Economies*, 3(1), 1-12.
- Oshiole, O. O., Adeyemi, S. B., & Ajayi, A. O. (2024). Health and safety cost disclosure and firm performance. *Journal of Occupational Economics*, 5(2), 77-95.
- Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 51(1), 1-17.
- Silva, R. (2020). Research design in social sciences. *Journal of Research Methodology*, 5(1), 10-25.
- Spiff, I. P. (2023). Human capital cost and productivity in Nigerian firms. *Nigerian Journal of Economic Studies*, 14(2), 89-105.
- Taboga, M. (2021). Generalized least squares estimation. *Statistical Methods Journal*, 6(1), 15-28.
- Ukenna, S., Ijeoma, N., & Anionwu, C. (2010). Human capital and organizational performance. *African Journal of Business Management*, 4(5), 678-685.
- Uwuigbe, U., Adegbite, E., & Olusanmi, O. (2021). Financial performance and corporate governance. *Corporate Governance Journal*, 21(2), 210-225.
- Van der Lugt, C. (2024). Human capital reporting and firm value. *Journal of Corporate Reporting*, 10(1), 44-60.
- Vithana, K., Perera, S., & Silva, R. (2023). Human capital cost and firm performance. *Asian Journal of Accounting Research*, 8(2), 155-173.
- Yikarebogha, E., & Adesola, W. A. (2025). Human resource accounting and firm performance in Nigeria. *Journal of Service Industry Research*, 11(1), 72-90.