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HUMAN RESOURCES COST AND FIRMS' PERFORMANCE AMONG CROSS-SECTIONAL FIRMS IN NIGERIA

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ABSTRACT

The study ascertained the level of cash Holding among listed insurance firms on Nigeria Exchange group. The specific objective was to examine the effect of leverage and investment opportunities on cash and cash equivalents of insurance firms listed in Nigeria Exchange Group (NGX). The research design used in this study is an ex-post facto. The population of the study was made up of fifteen (15) listed insurance firms in Nigeria from which a sample of ten (10) was selected using purposive sampling. This study relied on secondary data that were obtained from the annual audited financial statements of the sampled firms from 2013 to 2022. The hypotheses testing was done using estimation from Panel Error Component Generalized Least Squares at 5% significance level. The study found the following: leverage has a significant negative effect on cash holding of listed insurance firms in Nigeria (p-value = 0.0000); and investment opportunities have a significant positive effect on cash holding of listed insurance firms in Nigeria (p-value = 0.0000). The study recommends among others that the management of listed insurance firms in Nigeria should implement prudent debt management policies and strategies to ensure that debt levels are sustainable and do not excessively constrain cash flow or financial flexibility.

Key words: *Cash and Cash equivalent, Investment opportunity, Leverage.*

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1. INTRODUCTION

Human resource relevance in a business organization or any other organization cannot be overemphasized and it cannot be relegated to just a component of an organization. It is one component of the firm's resource that coordinates other resources within the organization. Human can be considered valuable asset or liability to an organization (Okoro, Paago & Egbuhuzor; 2022). Human capital development is a vital tool in enhancing and sustaining competence. To ensure that a firm sustains competitiveness in advanced operational environment, the management teams of the firms should persistently deplore different strategic drive. One of those strategies rests on improving the caliber and qualities of employees (Aderibigbe., Dauda & Fapohunda 2022). Globally, all firms no matter the size of such firm require adequate, efficient, effective and highly competitive manpower to

succeed and also to continue as a going concern. The failure or success of any firm is dependent on the quality of human resources such as staff caliber, skills, efficiency, creativity, ability and dedication of their resources towards success in the organization. Ogodor and Olaniyi (2022), in their work assert that firms must pay particular attention to the human resources, which acts as an enabler in facilitating firms' ability to adapt to flux in the working environment and become more competitive. Basically, a company's human resources are employees of various grades employed in the company. They are categorized into unskilled, semi-skilled, managerial and technical skilled in an organization (Mukolo, Jeroh & Ideh (2022).

According to Egolum (2021), human capital is one component of intellectual capital and the most innovative feature for firms to act on, according to the environmental changes through their knowledge, experience, and capabilities, which is applied to improve the organizational efficiency. Human capital efficiency measures how efficient the human resources of a firm add value to overall development of a firm. (Egolum; 2021). Ofurum and Adeola (2018), considered corporate performance as the capability of a firm to boost market share, generate maximum possible returns, pay dividend in time, deliver to customers, produce quality product at affordable prices, and increase revenue through high sales among others. Financial performance is considered a very important factor for organizational success especially scholars in accounting, finance and management. Notably, performance is one of the key determinant factors that are widely used in measuring the success or failure of firms (Harvest & Dumle, 2023). Ogodor and Olaniyi, (2022), noted that performance is the realization of firms strategies through effective utilizations of firms capacity. Capacity utilisation could be achieved through effectiveness in the utilisation of the multi-dimensional resources of the firm. Mwangi and Murigu (2015) defined financial performance as a measure of an entity's income, returns and increase in corporate value which is mirrored by the increase in price of the company's shares as can be compared with other companies across the sector or to relate the performance of businesses as a whole. Performance is the ability of the firm to achieve set goals such as profit after tax, employee efficiency and return of investment to the shareholders. Human resource (HR) plays vital roles in ensuring firms' performance and its success as such there is a need for proper accounting, disclosure and increase investment to achieve organizational goals. Despite the enormous contributions of Human resources to firms' performances, investment on this asset has remained abysmal when compared to the other physical assets of the firm. The reasons for this are not far-fetched- firms treat

investment in HR as expenses which is charged as period costs in the statement of comprehensive income (Ogodor & Olaniyi; 2022).

HR is a costly element for any business with staff; the processes of hiring, training, and retaining staff all have associated costs that business-owners need to anticipate as part of their human resources budget. Plus, there can be a number of unforeseen human resources costs that business may need to consider. In order to effectively ascertain the cost, incur in acquiring HR in any firm, there is need for adequate measure of HR. Therefore, accounting for HR is necessary. Human resources accounting (HRA) also known as Human Asset Accounting (HAA) is the process of identifying, capturing, measuring and analyzing potentials and values of human resources in a firm and communicating the resultant information to stakeholders of the firm (Ovechkin, Romashkina, & Davydenko 2021). According to Ovedje and Iserien (2021), HRA has peculiar accounting and valuation characteristics. This peculiar attribute makes it difficult for a uniform reporting system for HR in organizational books. Uncertainty of the service period because of free mobility of employees at their will, difference in proficiency level of each employee, uncertainty of the contribution level of employees and forecasted with much reliability since his/her productivity fluctuates and depends on many other factors, and finally, in valuing human resources, the payments in terms of salaries and/or wages count a lot. An employee that is valued in terms of the future salaries and wages determined today would have his value affected whenever the government changes policy affecting his reward system or whenever there is an action from the workers union regarding the reward system. Hence, the application of HRA varies across organizations and countries. Ovedje and Iserien (2021), poited out that while some organizations adopt a valuation method suitable for the measurement of their human resources and report such information as additional information or provide supplementary statements in the annual reports, others measure and report their human resources and intellectual capital according to specific models. Adewole, Ogunyemi, and Ojo (2019), the value of HR or human capital is not reported adequately to all the interested parties as a result of stringent recognition criteria for intangible assets in the statement of financial position. HR, is an essential tool that drives organizational profitability; hence all stakeholders need information provided for HR in the financial statements to project for future performances of the firm.

In line with Adewole et al (2019), profitability depicts efficiency in the management of organizational resources by the managers. It is a guide to measure efficiency; and is regarded as a measure of efficiency and management guide to greater efficiency. Therefore,

profitability of any organization is largely dependent upon the human resources. To a larger extent, HR in any firm is richer than the physical or financial resources of that firm. Since intellectual, experience, know-how, attitude, behaviours and value system of employees with a different way can improve the efficiency of production or services and create more wealth to an organization. Nwosu and Eze-Nwosu (2016), organizations' survival, growth and profitability are dependent more on intellectual assets than physical assets. In this regard, HR is deemed to be a resource needed for strategic attention. There is need for proper estimation of cost incurred on it. It is therefore necessary for organizations to utilize its human capital in such a way that will not make its success to be at stake. This can be achieved by ensuring that the human capital that will drive the economy be recognized as a valuable part of the total value of an organization in order to assess the effect it has on the corporate profitability. Many scholars have carried out researches on HR and profitability of firms. Most of the firms used as anchor firms were firms of the same industry. However, this particular study, studies the effect of human resources cost (HRC) on performance of cross-sectional industries. The findings of the different researchers who have carried-out researches on this field varied. This study intends to validate or invalidate some of the findings. Okoro, Paago and Egbuhuzor, (2022), found out that there is a positive and significant relationship between staff cost and return on assets; and a positive and insignificant relationship between staff cost and return on capital employed of listed pharmaceutical companies in Nigeria. Harvest and Dumle (2023), found out that, there is a negative and significant effect of human capital costs on financial performance of listed healthcare firms in Nigeria under the period of the study between 2012 and 2021. This finding contradicts the findings of Okoro et al (2022). Kashanipour, and Farooji, (2022), their results show that organizational profitability has a positive and significant effect on human resource accounting, and asset return and stock return have a negative but insignificant effect on human resource accounting. This finding agrees partly with the findings of Okoro et al (2022) and Harvest and Dumle (2023). Tadić, and Barać (2022), the results obtained show that training and extra bonuses or salaries are positively correlated with company excellence, as well as show a significant difference in the mean of salaries per employee between high and moderate intensive intellectual capital companies. Their findings agree with Okoro, Paago and Egbuhuzor; (2022), but disagrees with Harvest and Dumle; (2023).

1.1 Objectives

The main objective of the study is to determine the effect of human resources cost on firms' performance. The specific objectives are to:

1. determine the relationship of salaries and wages cost on return on assets of firms;
2. evaluate the relationship of salaries and wages cost on return on capital employed of firms;
3. identify the relationship of salaries and wages cost on return on equity of firms;
4. establish the relationship of defined contributory scheme on return on assets of firms;
5. evaluate the relationship of defined contributory scheme on return on return on capital employed of firms; and
6. identify the relationship of defined contributory scheme on return on return on equity of firms.

1.2 Hypotheses

The following three hypotheses were tested:

H_{O1}: there no significant relationship of staff salaries and wages cost on return on assets of firms;

H_{O2}: there is no significant relationship of salaries and wages cost on return on capital employed of firms;

H_{O3}: there is no significant relationship of salaries and wages cost on return on equity of firms;

H_{O4}: there is no significant relationship of defined contributory scheme on return on assets of firms;

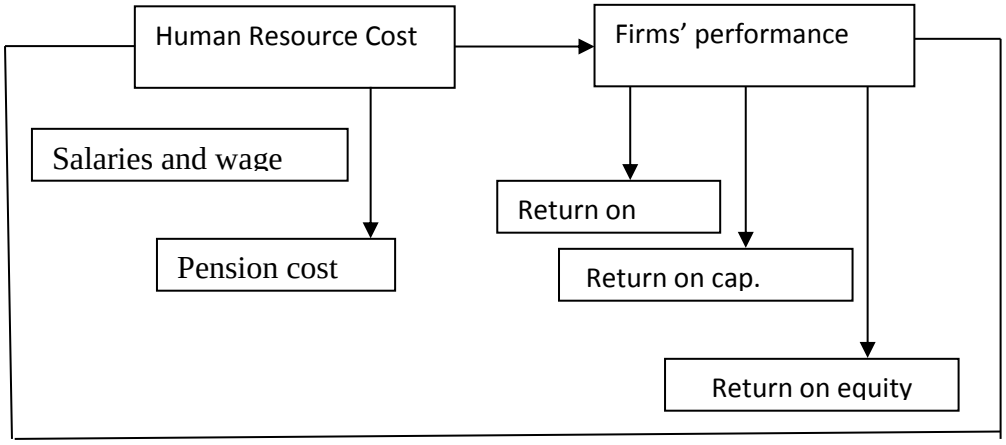
H_{O5}: there is no significant relationship of defined contributory scheme on return on return on capital employed of firms;

H_{O6}: there is no significant relationship of defined contributory scheme on return on equity of firms.

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2. LITERATURE REVIEW

2.1 Conceptual Framework



Source: Researcher's opinion. 2024

2.1.1 Human Resources Cost

Human capital or the human resource is the value that employee of a firm brings on board in solving organizational problems through their skills, knowledge and experience (Newsttyle & Major, 2022). Human capital is defined by Aderibigbe et al (2002) as the total inmate abilities which are endowed in staff. It is the stock of potentials, skills, competence, knowledge, creativity, attitude, and personal abilities deposited in people who are channeled towards achieving economic value. Human capital is also an approach to staffing which regard employees as an asset whose present value can be measure and also their future value can be improved through investment in training and development. Human capital is domiciled in the human beings employed by the firm and cannot be apart. It is noted by Harvest and Dumle; (2023) that human capital is inseparable from man and cannot be the property of an organization. The implication of the above is that mobility of human capital depends on the state of the employee. Bontis; (2001) defined human capital as the skills, knowledge and experience of individual employees within an organization. Egolum; (2021), human capital is the competence of an employee to create both tangible and intangible assets through contributing towards the continuous generation of ideas and knowledge. Human capital comprises the knowledge, experiences, skills, and abilities of staff. Human capital cost is an inestimable component of the firm. According to Aderibigbe et al (2002), every organization must pay attention to the recruitment and maintenance of human capital. Human capital is one component of intellectual capital and the most innovative feature for firms to act on, according

to the environmental changes through their knowledge, experience, and capabilities, which is applied to improve the organizational efficiency (Egolum; 2021).

Human resources costs (HRC) are the cost, firms incur to recruit and sustain the human capital needed by the firm. Khanka (2010), noted that human resources costs are the costs an organization(s) incurred to recruit, select, hire, train, develop and ascertain the economic value of labour to the organisation so as to facilitate effective human resource policy and practice. Adewole et al (2019), in their view, opined that HRC involves accounting for expenditure related to human resources as assets as opposed to traditional accounting which treats these costs as expenditure that reduce profit. Such costs include; training and development cost, employees' salaries and wages cost and health and safety costs. Okoro et al, (2022), opined that HRC is the expenses incurred in replacing a certain service rendered by an employee with an equivalent of such services rendered by another person. HRs are the totality of human resources under employment of a firm, whose skills and other activities affect the performance of the firm directly or indirectly. It determines the ability of the firm to maintain sustainable growth. It includes costs of recruitment, selection, hiring, placement, orientation, and on-the-job training. Expenditures on employees are investments which are aimed at improving the quality of a firm's employees through increased motivation and creativity.

According to Okoro et al (2022), staff costs also known as employees' costs are expenditures incurred by entities for its members of staff. This has to do with human resource management understanding the cost of people to the business and the area that they support. Training and development costs include any staff costs (wages, salaries and other employees' benefits), paid to internal training of staff and any technology and third-party vendor spending related to employee training (e.g. training – related conference costs, online training vendours costs, technology cost etc). training is a set activities which reacts to the present needs and is focused on the instructor and contrast with learning as a process that focuses on developing individual and organizational potential and building capabilities for the future, (Harvest & Dumle; 2023).According to Ovedje and Iserien; (2021), staff cost entails the definite sum of money paid to all staff such as wages, salaries, commissions, and employer paid insurance premiums and pension including other fringe benefits. Staff cost is not just the salary payment; it involves other expenses which are important in the development and welfare of the employee. It involves expenses on social security payments, pension contributions, travelling allowances, training and development cost, human resources expenses, holiday pay, sick pay,

and health care cost. Adewole et al (2019), staff cost is the forgone alternative to obtain an expected benefit or service. They further explain that staff costs have two elements visa vis the expense and the assets element. The expense element is that which provides benefits during the current accounting period, whereas the asset portion is that which is expected to give rise to benefit in the future. Training cost is fundamentally a management instrument derived to foster, develop and increase skills and knowledge base of employees and also employers with a view to ultimately increasing both the employees and organizations performance in terms of efficiency, effectiveness and overall productivity. Education and training of an employee are all geared towards making an employee skilled enough to handle complex jobs (Lakra, 2016).

Onoriode; (2022), argued that staff cost is an expense given that the benefits were enjoyed within an accounting year. They went further to include that, those cost incurred by firms to maintain the employee working capacity such as the costs incurred for the motivation staff, to make employees focus and be dedicated to their duty. The decision to capitalize or expensed some cost elements depend on management, especially in absence of clear compelling standards. As such, the choice will affect the operating performance and company statements of financial position. The implementation and review of any safety programme becomes successful with the involvement of top level or strategic level management. There are substantial benefits to adopt health and safety costs as part of human capital accounting. Such benefits include; improvements to individual employees' health and well-being; increased productivity; and reduced safety risks and expenses. Yet many employers remain reluctant to shift from traditional safety initiatives and spending. Muchemedzi and Charamba (2006) 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. 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 (Olowolaju, 2016).

2.1.2 Firms' Performance

According to Lambe, Orbunde, and Ojeh; (2021) firm's performance is the ability of a firm to achieve its objectives within the available resources. Suleiman (2013) viewed a firm's performance as the result of a company's assessment or strategy on how well a company accomplished its goals and objectives. Firm's performance is a yardstick used by firms to determine the extent of achievement it has recorded in optimization of its goals. It is a periodic

attainment in monetary terms which are measured in terms of profit or losses. The productivity, profitability and market premium are three perspectives to evaluate financial performance (Harvest & Dumle; 2023). Yahaya and Lamidi (2015) believed that financial performance is an instrumental element, especially to profit-oriented firms as it determines its competitiveness and financial sustainability which in return influence its capability to meet its financial obligations. They further described financial performance as a measure of effectiveness and efficiency in the utilization of obtainable resources in the core operations of a firm to generate revenue. According to Egolum, (2021), financial performance is seemed as the extent of productivity that the organization can achieve towards attaining its goals, increasing organizational resources, meeting customer's needs and improving internal processes. Firms' performance is the extent to which a firm can add values to corporate worth by satisfying its employees, gaining competitive advantage, retaining employees, boosting productivity and minimize costs. According to Lambe, et al (2021), financial performance of a firm may affect the income of the staff positively or negatively, rendering quality product or services to its customers and creating more goodwill in the environment it operates. A company that has good performance can generate more returns which can lead to future opportunities that can in turn create employment and increase the wealth of people. It sets the parameter to measure the how well the firm's assets are implored in revenue generation. Financial performance mainly shows the sector of a business outcome as well as results, showing the overall financial health condition of the business sector over a particular time period (Naz, Ijaz, & Naqvi,: 2016).

2.2 Empirical Review

Okoro, Paago and Egbuhuzor, (2022), undertook research on the relationship between human resource cost and financial performance of listed pharmaceutical companies in Nigeria. They adopted ex-post facto research design with a population of ten (10) listed pharmaceutical companies in Nigeria as listed by the Nigerian exchange group in 2021, sourced from annual report of listed pharmaceutical companies for a period of 2011-2020. They implored multiple regressions with the aid of E-views software to analyze data obtained. The study revealed a positive and significant relationship between staff cost and return on assets; and a positive and insignificant relationship between staff cost and return on capital employed of listed pharmaceutical companies in Nigeria. Aderibigbe, Dauda. and Fapohunda; (2022), undertook research on the impact of human capital development on employees' performance: a study of two selected Chinese owned firms in Lagos state. Descriptive (survey) research design was used in this study and the data collected were analyzed using linear regression to highlight the

relationships between its variables. Two Chinese owned manufacturing firms were considered and the population for the study was three hundred and eighty-four (384) which is made up of staff of Multi-Pro Enterprise Ltd (Hypo Division) and KRS Investment Ltd. The sample size for the study was two hundred while the sample techniques used was purposive method findings revealed that Job-related experiences, Development skills acquired through academic and professional qualification and identification of training programmes have significant influence on the performance of employees in the Chinese-Owned firms in Nigeria. It was recommended that companies /managers should ensure that resources are allocated for trainings and any development initiatives. Finally, managers should also help employees understand the benefit of training and development based on personal development in line with organization's goals.

Kashanipour and Farooji; (2022), undertook research on the impact of human resource accounting on financial performance (case of: Industry-oriented companies admitted to the Tehran stock exchange) from 2001-2017. The results show that organizational profitability has a positive and significant effect on human resource accounting, and asset return and stock return have a negative but insignificant effect on human resource accounting. Ogodor and Olaniyi (2022) investigated the effect of human resource accounting on corporate performance in Nigeria. The study population consisted of the twenty-five (25) consumer products companies listed at the Nigerian Stock Exchange as at 31st December 2018 and from which a sample of eight (8) firms was purposively drawn as the sample size for the period between 2013 and 2018. The study used multiple regression to analyse the data and the result indicated that human resources accounting proxied by salaries, wages and allowances, personnel expenses and other benefits and pension and gratuity had positive and significant effect on corporate performance measured by return on assets (ROA) and earnings per share (EPS).

Mukolo, Jeroh and Ideh (2022) examined the effect of human resource accounting (HRA) on the financial performance (return on assets-ROA) of selected quoted Nigerian food and beverages firms. Four of these firms were sampled from 2006-2021. The research analyzed the data generated using the panel regression analysis through the instrumentality of Econometric Views. The study evidenced that, staff trainings and development costs (STC) and welfare costs (EWC) improved firm performance significantly but staff safety cost did not. However, hiring cost has a negative significant effect on ROA of the targeted firms in

Nigeria during the study periods. Hence, the paper concluded that human resource accounting is instrumental to higher firm performance.

Egolun (2021) did a research on evaluation of human capital efficiency on performance of listed service firms in Nigeria, ranging from 2010 to 2019. The researcher employed earnings before interest and tax margin to control the model which is in line with related extant literature. Ex-post facto research design was along with sample size of sixteen (16) out of twenty-five (25) quoted service firms in Nigeria Stock Exchange. The data for the study was sourced from the Nigerian Stock Exchange Fact Books and related companies' Annual Financial Reports for the periods covered. Specifically, the author conducts pre regression analysis which includes descriptive statistics, correlation matrix, and normality of residua analysis. Basically, the Panel Ordinary Least Square Regression analysis was first conducted, and several diagnostic tests were carried out to check if it violates the basic Gauss Markov Theorem and assumptions. These post regression test include homoscedasticity and multicollinearity tests. A critical examination of all the diagnostic test revealed that the models failed the homoskedasticity assumption of the OLS estimates and thus, the researcher adopted the Robust Standard Error technique to correct for this problem. Findings from the robust standard error estimator reveal that: Human capital efficiency has a negative insignificant effect on net profit after tax margin and positive significant effect on gross profit margin. On profit before interest and tax margin, human capital efficiency has a positive insignificant effect. It was therefore, recommended that service firms will achieve high performance relating to gross profit margin if they continuously train and retrain their staff to acquire cognate and state-of-art skills to deliver service.

Ovedje and Iserije; (2021) investigated the effect of human resource accounting on financial performance by employing samples from listed manufacturing firms in Nigeria between the periods of 2011-2020. Employee cost, employee size, and directors' remuneration are the Human Resource Accounting (HRA) proxies used in this study to assess the impact on financial performance in Nigeria. Return on Asset is the metric used to assess financial performance. Furthermore, in accordance with previous studies, the researchers used earnings per share as the control variable. Specifically, to examine the cause-effect relationships between the dependent variables and independent variables as well as to test the formulated hypotheses, the researchers used a robust regression analysis since our results reveal the presence of heteroscedasticity. The researchers conclude that only the variable of employee size and directors' remuneration significantly impact the financial performance of selected

manufacturing firms in Nigeria. While employee size evidently increases financial performance of the firms under study, it is observed that directors' remuneration tends to decrease financial performance.

Adewole, Ogunyemi and Ojo. (2019); the study examined the effects of conventional treatment of Human Asset on Net Profit; determined the effects of Human Resources Capitalization on firm's net worth; determined the effect of Human Resources Capitalization on firms' share prices. The study adopted the survey research design and well-structured questionnaire was purposively distributed to 100 staffs of selected firms in the Central senatorial district of Ondo state. Data collected were presented and analysed using ANOVA and Regression. The study revealed that creating room for creative accounting, lack of accounting standard backing conventional treatment of human resources and biasness in financial reporting are joint indicator of the effect of conventional treatment of Human Asset on Net Profit (R^2= 0.577; P < 0.005). The study clearly shows that improving investors' confidence (29.236; 145.171; 0.000), ease in assessing future potential earnings (29.042; 66.933; 0.000); Contribution to decision making process of capital formation (26.197; 100.249; 0.000); sustainable equity position (23.988; 137.766;0.000); have significant effect on firm's network. The study also shows that increase in the level of profitability (4.026; 6.789; 0.000), firm's growth (23.430; 74.008; 0.000); increase in the size of a firm (11.087; 95.832; 0.000); have significantly affected the share price of a firm. It was concluded that increase in profitability, firm size and growth are some of the cogent effects of capitalization of human resources have an effect on the share price of a firm.

Prior research has studied the relationship between human capital costs and financial performance. Based on the empirical studies reviewed in term of concepts, years, scope, methodology adopted, variable employed, findings, conclusion and recommendations, the following gap were identified: (a) none of the prior studies reviewed a study on the relationship between human capital costs and financial performance of food and beverages industries and Banking industries in Nigeria, (b) none of the previous studies reviewed the time frame of 2012 to 2022 of the mentioned firms in Nigeria, (c) None of the previous studies reviewed a study using three from each of the industrial sector in Nigeria used in this study. Therefore, this study is designed to bridge this knowledge gap that existed in the literature of human capital costs and financial performance of some of the listed firms in Nigeria.

3. MATERIAL AND METHODS

The study considered quantitative analyses. Due to data availability, six (4) firms were selected. Two (2), from food and beverage industries and another two (2) firms from banking industries were selected as at 31st December, 2022. These four targeted firms are: (a) for the food and beverage industries are: Nigeria Breweries Plc, and Nestle Foods Nigeria, while two firms drawn from banking industry are: Zenith Bank Nigeria Plc and United Bank For Africa, Nigeria Plc. Furthermore, the panel regression estimate was considered using the Econometric Views version 9.0. The choice of this econometric package lies in the fact that its user-friendliness and global acceptability.

Accordingly, the following models were adopted from Moukolo, Jeroh and Ideh; (2022), thus:

P=f (HRC)---------- ----------Eqn.1

Where

P = performance

f= function

HRC=Human Resource Cost

But

ROA = f(SWC, DCS)--------- ----------Eqn.2

ROCE = f(SWC, DCS)------ ----------Eqn.3

ROE = f(SWC, DCS)---------- ----------Eqn.4

Therefore, substituting equation (2,3 and 4) into equation (1) along with a constant (β0) we have equation (5,6 and 7) as our model specification as shown below

ROA = $\beta_0+\beta_1$SWC + β_2DCS + et ----------Eqn.5

ROCE = $\beta_0+\beta_1$SWC + β_2DCS + et ----------Eqn.6

ROE = $\beta_0+\beta_1$SWC + β_2DCS + et ----------Eqn.7

ROA = Return on Assets

β0 = constant

SPC = Staff Training Costs

SWC = Salaries and wages Costs

e = error term.

FP = Financial performance, measured by return on assets (ROA), return on capital employed (ROCE) and return on equity (ROE).

ROA = Return on assets, measured as profit before taxes/total assets (Ijaz & Naqvi, 2016; Yahaya & Lamidi, 2015).

ROE = Return on equity, measured as profit after taxes/equity (Nur et al., 2016; Yahaya & Lamidi, 2015)

ROCE= Return on capital employed measured by PAT/capital employed

Therefore, substituting equation (2,3 and 4) into equation (1) along with a constant (β0) we have equation (5,6 and 7) as our model specification as shown below

$ROA = \beta 0 + \beta_1 SWC + et$ ----------Eqn.8

$ROC = \beta 0 + \beta_2 SWC + et$ ----------Eqn.9

$ROE = \beta 0 + \beta_3 SWC + et$ ----------Eqn.10

$ROA = \beta 0 + \beta_4 SPC + et$ ----------Eqn.11

$ROC = \beta 0 + \beta_5 SPC + et$ ----------Eqn.12

$ROE = \beta 0 + \beta_6 SPC + et$ ----------Eqn.13

ROA = Return on Assets

β0 = constant

SPC = Staff Training Costs

SWC = Salaries and wages Costs

e = error term.

FP = Financial performance, measured by return on assets (ROA), return on capital employed (ROCE) and return on equity (ROE).

ROA = Return on assets, measured as profit before taxes/total assets (Ijaz & Naqvi, 2016; Yahaya & Lamidi, 2015).

ROE = Return on equity, measured as profit after taxes/equity (Nur et al., 2016; Yahaya & Lamidi, 2015)

ROCE= Return on capital employed measured by PAT/capital employed

4. RESULTS AND DISCUSSIONS

The raw data collected for the variables are presented in appendix 1 and the data for Salaries & Wages Costs (SWC) and Defined Contributory Scheme (DCS) were logged to bring them to the bases with the data for the dependent variables (ROA, ROCE and ROE). The Panel data regression analysis results, whereby the fixed and random effect estimations were conducted, are presented in appendix 2. Hausman tests was carried out on the Random Effect results for the three models of the study to determine which of the two estimations (Fixed Effect or

Random Effect) is most appropriate for decisions on the key parameters for each of the three models of the study.

The results of the Hausman Tests are presented as follows:

Table 1: Hausman Test- Model 1

Correlated Random Effects - Hausman Test (Model 1)

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.017897	2	0.3015

Correlated Random Effects - Hausman Test (Model 2)

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	12.564723	2	0.1019

Correlated Random Effects - Hausman Test (Model 3)

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.321135	2	0.0735

From Hausman test results, the p-value of cross-section random chi-square results for the three models are 0.3015, 0.1019 and 0.0735 respectively. Each of these values is greater than the significant level of 0.05, therefore, the null hypothesis which states that random effect model is the most appropriate model is accepted and the fixed effect is rejected. Therefore,

the results of the random effect estimations for the three models of the study are used to form opinion about the objectives and hypothesis of the study.

4.2 Test of Hypotheses

The results of the Panel Lest Square (Random Effect) estimations in appendices 2, were utilized in forming opinion on the six hypotheses earlier formulated in this study. The key parameters from the results are presented on table 1

Table 2: Results of Key Parameters of the Panel Regression Models (Random Effect)

	Model 1 (ROA)		**Model 2 (ROCE)**		**Model 2 (ROCE)**	
Inded. Variables	**Coefficients**	**P-value**	**Coefficients**	**P-value**	**Coefficients**	**P-value**
LogSWC	0.17	0.02	0.15	0.00	-0.04	0.99
LogDCS	-0.11	0.04	-0.11	0.01	-068	0.84

Source: *Deductions from appendix*

The six hypotheses formulated in this study are restated (in null form) as follows:

4.2.1 Hypothesis One

Ho_1: There is no significant relationship between Salaries and Wages cost and Return on Assets of firms

The result on table 1 with respect to the first hypothesis of the study reveals that the coefficient of the first independent variable SWC for model 1 is 0.17, while the corresponding p-value of individual t-statistics is 0.02, which is less than the significance level of 0.05. These results indicate that salaries and wage costs are significantly and positively related to the return on assets of the firms covered in the study. With this result therefore, the null hypothesis which states that there is no significant relationship between SWC and ROA of firms is rejected while the associated alternative hypothesis that a significant relationship exists is accepted. +

4.2.2 Hypothesis Two

Ho_2: Salaries and Wages cost has no significant effect on Return on Capital employed of firms.

The result of the hypothesis test from table 1 also reveals that the coefficient of the first independent variable, SWC for model 2 is 0.15 and the p–value is 0.00 which is less than the significance level of 0.05. These results suggest that SWC has a significant positive effect on return on capital employed. Therefore, the null hypothesis which states that SWC has no significant effect on ROCE of firms is rejected while the associated alternative hypothesis that a significant effect of SWC on SP exists is accepted.

4.2.3 Hypothesis Three

Ho_3: There is no significant relationship between Salaries and Wages cost on Return on equity of firms.

In deciding for the third hypothesis of this study, the result on table 1 with respect to the first independent variable of model 3 is used, the result shows that the coefficient of the first independent variable SWC for model 3 is -0.04, while the corresponding p-value of from the t-statistics is 0.99, which is far greater than the significance level of 0.05. The implication of the results is that there is insignificant negative relationship between SWC and ROE of the firms covered in the study. Therefore, the null hypothesis which states that there is no significant relationship between SWC and ROE of firms is accepted and the alternative hypothesis that a significant relationship exists is rejected.

4.2.4 Hypothesis Four

Ho_4: There is no significant effect of Defined Contributory scheme on Return on Assets of firms.

The result on table 1 (for model 1 second independent variable) also reveals the finding for hypothesis 4. It showed that the coefficient of the second independent variable (DCS) for model 1 is -0.11 while the p-value is 0.04. This indicates that there is a significant negative effect of defined contributory scheme on return on assets. Therefore, the null hypothesis, which states that there is no significant effect of DCS on ROA of firms is rejected while the alternative hypothesis is rejected.

4.2.5 Hypothesis Five

Ho_5: Defined Contributory scheme has no significant effect on Return on Capital employed of firms.

The result of the hypothesis test from table 1 also reveals that the coefficient of the second independent variable, DCS for model 2 is -0.11 and the p–value is 0.01 which is less than the significance level of 0.05. These results suggest that DCS has a significant positive effect on return on capital employed. Therefore, the null hypothesis which states that DCS has no significant effect on ROCE of firms is therefore rejected while the corresponding alternative hypothesis that DCS has a significant effect on ROCE is accepted.

4.2.6 Hypothesis Six

Ho_6: there is no significant relationship of Defined Contributory scheme on Return on equity of firms.

In deciding for the sixth hypothesis of this study, the result on table 1 with respect to the second independent variable of model 3 is used. The result shows that the coefficient of the variable is -0.68 while the corresponding p-value of from the t-statistics is 0.84, which is far greater than the significance level of 0.05. This indicates that there is insignificant negative relationship between DCS and ROE of the firms covered in the study. Therefore, the null hypothesis which states that there is no significant relationship between DCS and ROE of firms is accepted and the alternative hypothesis that a significant relationship exists is rejected.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, it is therefore concluded that the human resources cost of corporate firms in Nigeria have mixed effect on the performance of the firms. When performance is viewed from the point of view of return on assets and return on capital employed, the human resources cost indices used in this study exerted a significant effect on the performance of firms. However, if the human resources cost in question is the defined contributory scheme on behalf of the employees, it significantly affects firm performance negative; but consideration of human resources cost from the point of view of return on assets will result to a significant positive effect on firm performance. On the other hand, when performance is viewed from the angle of return on equity, human resources cost has no traceable significant association with performance of firms. It is therefore affirmed in this study that the interplay between human resources costs and performance of corporate entities is Nigeria remains unsettled and is still topical for further investigations.

The study recommends that corporate firms should strengthen their human resources management policies to enhance their corporate performance. They should pay more attention and enhance their commitment to employees defined contributory schemes, so as to foster better corporate performance.

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APPENDIX 1: Raw Data Collected

FIRM	YEAR	ROA	ROE	ROCE	SWC (N'000)	DCS (N'000)
GUINNESS	2012	0.2055	19.8941	0.1431	12,238,603	1,528,175
GUINNESS	2013	0.1405	0.2633	0.0980	10,241,605	1,264,530
GUINNESS	2014	0.0883	0.2079	0.0723	8,990,388	1,342,985
GUINNESS	2015	0.0883	0.1612	0.0638	7,582,952	970,547
GUINNESS	2016	-0.0171	-0.0484	-0.0147	8,568,103	1,104,749
GUINNESS	2017	0.0129	0.0448	0.0132	9,660,166	979,785
GUINNESS	2018	0.0438	0.0763	0.0436	9,569,515	1,246,856
GUINNESS	2019	0.0442	0.0616	0.0341	10,963,749	2,212,922
GUINNESS	2020	-0.1184	-0.1722	-0.0873	8,348,242	3,028,651
GUINNESS	2021	0.0609	0.0169	0.0133	7,730,644	2,994,557
GUINNESS	2022	0.1088	0.1739	0.0719	7,600,884	2,782,809
NB	2012	0.2193	0.4071	0.1500	36,506,256	6,316,297
NB	2013	0.2462	0.3834	0.1704	40,346,162	5,825,479
NB	2014	0.1758	0.2474	0.1216	29,865,753	5,123,583
NB	2015	0.1528	0.2209	0.1067	29,867,966	4,577,416
NB	2016	0.1078	0.1713	0.0772	31,527,145	4,688,806
NB	2017	0.1217	0.1851	0.0862	30,054,342	4,518,840
NB	2018	0.0610	0.1764	0.0769	28,860,900	4,518,840
NB	2019	0.0414	0.0960	0.0414	27,500,383	4,216,380
NB	2020	0.0263	0.0467	0.0169	20,700,513	3,078,797
NB	2021	0.0375	0.1390	0.0496	19,155,265	4,189,550
NB	2022	0.0224	0.0715	0.0208	18,204,079	2,800,888
ZENITH	2012	0.0393	5.5636	0.0386	58,576	2,983
ZENITH	2013	0.0290	6.0909	0.0333	53,466	2,797
ZENITH	2014	0.0270	6.6779	0.0315	52,485	2,676
ZENITH	2015	0.0263	6.8569	0.0307	51,966	2,944
ZENITH	2016	0.0327	6.9501	0.0278	47,971	3,150
ZENITH	2017	0.0359	6.8318	0.0325	46,181	3,151
ZENITH	2018	0.0388	7.3411	0.0334	44,649	2,969
ZENITH	2019	0.0368	6.9770	0.0328	52,204	3,055
ZENITH	2020	0.0295	7.8709	0.0278	51,610	3,149
ZENITH	2021	0.0327	7.4990	0.0296	45,328	2,501

ZENITH	2022	0.0278	8.8447	0.0222	42,410	2,841
UBA	2012	0.0239	0.2150	0.0245	56,203	1,653
UBA	2013	0.0234	0.1791	0.0210	41,937	1,371
UBA	2014	0.0181	0.1422	0.0171	45,853	1,325
UBA	2015	0.0229	0.1409	0.0215	42,532	1,242
UBA	2016	0.0143	0.0632	0.0141	40,278	1,259
UBA	2017	0.0099	0.0399	0.0096	41,016	1,327
UBA	2018	0.0154	0.1126	0.0114	42,193	1,308
UBA	2019	0.0169	0.1405	0.0152	40,635	1,398
UBA	2020	0.0112	0.1191	0.0109	40,799	1,283
UBA	2021	0.0109	0.1170	0.0105	36,879	1,108
UBA	2022	0.0192	0.2285	0.0182	32,149	850

DCS = Defined Contributory Scheme