

EFFECT OF HUMAN CAPITAL EXPENDITURE ON CAPITAL ADEQUACY OF BANKS IN NIGERIA

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ABSTRACT

The study investigated the effect of Human Capital Expenditure on Capital Adequacy of Deposit Money Banks in Nigeria. Its specific objectives were to determine the effects of training costs and employee benefits as human capital expenditures on capital adequacy ratios and leverage ratios of ten (10) Deposit Money Banks listed on the Nigerian Exchange Group in Nigeria within the period 2016-2021. The ex-post facto research design was adopted for the study. Relevant data was obtained from the annual reports and accounts of ten (10) Deposit Money Banks listed on the Nigerian Exchange Group in Nigeria within the period 2016-2021 as available on their websites. In testing the hypotheses, ordinary least square (OLS) model was used. The result of the study showed that human capital expenditure in terms of employee training and employee benefits have a significant effect on the capital adequacy of banks in Nigeria. The study recommends among others that, deposit money banks in Nigeria should give concerted consideration to employing more and investing more in human capital development. Regulators should issue policy guidelines to encourage deposit money banks to increase human capital expenditure.

Key words: Capital adequacy, employee benefit, employee training cost, deposit money bank.

JEL Classification Code: J30, L25, M41

1. INTRODUCTION

There has been a shift to knowledge-based economy in the 21st century thereby compelling firms to function in a manner that would enable them share in the benefits provided by their dependence on this symbiotic knowledge-based economic relationship if they must grow and survive. In the knowledge-based economy, human capital assumes the organizational key-player position. However, not much attention seemed to have been accorded human capital development in the form of employee welfare, development, and better package. Human capital accounting has globally recognized that success of any organization, business or otherwise to a great magnitude, depends upon the quality, experience, knowledge and character of the people working in it. In conformity, Oladele *et al.* (2018), opined that an organization having huge tangible resources with latest technology may find itself amid severe financial crisis in case it does not have the right people to manage and conduct its affairs. Olayiwola (2015), sees human capital as one of the valuable strategic assets.

The increase in the capital base of banks in Nigeria, has been one of the most significant achievements in the Nigerian economy's financial sector. As a result, financial institutions have grown larger, stronger, and more resilient. Capital is useful in such unusual loss situations to cushion the losses. Capital serves as insurance in this way. Adequate capital in banking boosts confidence. It gives the customer, the public, and the regulatory authority confidence in the banks' continued financial viability. Banks play a pivotal role in shaping a country's economy, given the relationship between the well-being of the banking sector and the growth of the economy (Rajan & Zingales 1998; Cetorelli & Gambera 2001). The understanding that capital adequacy influences the profitability of the financial sector is critical not only for bank managers, but also for numerous stakeholders such as central banks, bankers' associations, governments, and other financial authorities.

In the Financial System Strategy (FSS) 2020 International Conference under the auspices of the Central Bank of Nigeria (CBN), the Human Capital Group recognized that, the availability of skilled human capital is fundamental to creating and sustaining the momentum of Financial System Strategy (FSS) 2020, and then, identified the immediate need to enhance the skills of the current workforce and a medium to long term need to develop a continuous pipeline of quality human capital for the Nigerian Financial Services Industry (CBN 2020).

Despite the potential benefits of human capital development to the survival of firms, there has been scarcity of empirical studies on the effect of human capital expenditure on capital adequacy of deposit money banks in Nigeria. It is in this light that this study aims to determine the effect of human capital expenditure on capital adequacy of deposit money banks in Nigeria. Its specific objectives are to:

- 1) ascertain the effect of employee training cost on capital adequacy ratio of Deposit Money Banks in Nigeria;
- 2) evaluate the effect of employee benefits on capital adequacy ratio of Deposit Money Banks in Nigeria;

Based on the objectives of the study the following research questions were drawn:

- 1) What is the effect of employee training cost on the capital adequacy ratio of Deposit Money Banks in Nigeria?
- 2) What is the effect of employee benefits on the capital adequacy ratio of Deposit Money Banks in Nigeria?

Guided by the research questions, the following hypotheses are presented.

H₀₁: The effect of employee training cost is not significant on the capital adequacy ratio of Deposit Money Banks in Nigeria.

H₀₂: The effect of employee benefits is not significant on the capital adequacy ratio of Deposit Banks in Nigeria.

2. REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

Human Capital Expenditure

Tapomoy (2006) states that human resources represent the total intrinsic abilities, acquired knowledge and skills, as exemplified by the talent and aptitude of the employee. They are the people and their characteristics in terms of work organization and include senior managers, executives, managers, and operations. Human capital expenditures are the cost incurred on human resources. It covers all the expenses incurred by an organization to acquire, monitor, retrain, maintain, develop, and redevelop its human resources as an activity.

Diez *et al.* (2010) define human capital as firm's competencies and value creation efficiencies which are linked by employee's knowledge, skill, and intellectual capabilities. According to Kucharčíková (2014) human capital represents the factor

which gives a specific character to every organization. Therefore, people form an element in organization to learn, innovate, stimulate, and make the necessary changes as well as think creatively.

Employee Training Cost

Employee training cost forms part of the total cost involved in human resource development and so is taken as a measure of human capital expenditure of an organization. The term 'training' indicates the process involved in improving the aptitudes, skills, and abilities of the employees to perform specific jobs, helps in updating specific talents and developing new ones (Aswathappa, 2000, as in Pahuja & Malhotra, 2017). Training is a systematic development of the knowledge, skills and attitudes required by an individual to perform a given task or job (Armstrong, 2001; as in Pahuja & Malhotra, 2017). These definitions conceive training as improvement upon a latent or primarily acquired, or basic knowledge, skill, aptitude, or intelligence that has been existing within the individuals before they become part of the organization's workforce. Hence successful candidates in recruitment exercises are placed on the job's need training to perform their duties in an effective manner. For Pahuja and Malhotra (2017), the success of any organization depends upon the quality of the workforce which can only be maintained when the organization attracts to itself qualitative workforce; recruits intelligent, dynamic and enthusiastic people; motivates current employees and retains the current workforce for maintaining the organizational status in the competitive market; and for the survival of the business and becoming a successful pillar in the market, training is a tool that can help in gaining competitive advantage. They assert that, human resource development focuses on developing the most superior workforce that helps the organization for successful growth, which can only be achieved through proper and systematic implementation of employee training and development programs.

Employee Benefits

Employee Benefits are any form of indirect compensation paid to employees over and above regular salaries or wages, which could be a requirement of law or a deliberate employer's policy in such form as contribution to social security, health care, retirement savings or paid time off offered by organizations to their employees because they promote job satisfaction and inspire worker loyalty, which in turn, can lead to better financial performance (Klonoski, 2016). Types of employee benefits

applicable under IAS 19 include: compensated absences (paid vacation and sick leave); profit sharing and bonuses; medical and life assurance benefits during employment; non-monetary benefits such as houses, cars, and free or subsidized goods or services; retirement benefits, including pensions and lumpsum payment; post-employment medical and life insurance benefits; long-service or sabbatical leave; jubilee benefits; deferred compensation programmes; termination benefits.

Capital Adequacy

Capital adequacy refers to the amount of equity capital and other securities which a bank holds as reserves against risky assets, as a hedge against the probability of bank failure (Alajmi & Alqasem, 2015). The primary purpose of capital adequacy is to provide a cushion against losses not covered by current earnings and to protect depositors and other creditors from loss in the event of liquidation. Through loss absorption, capital adequacy provides the ultimate safeguard against insolvency and liquidation caused by risk in the banking industry. Banks hold very many risky assets and volatile liabilities compared to non-financial firms. The riskier the asset composition of banks, the more the capital required to maintain a given level of soundness, and the greater the concentration and volatility of liabilities, the higher the risk, and the greater the amount of capital adequacy required to maintain solvency. The risk in high volatility stems from the fact that large withdrawals may force asset liquidation at an inconvenient time, and liability maturity mismatches may force refinancing or liquidation at a loss.

Experts in banking and finance differ on what constitutes adequate capital. In view of lack of consensus, regulators consider capital adequacy ratio (CAR) as sets standards for banks by looking at the bank's ability to pay liabilities and respond to credit risks and operational risks. The capital adequacy ratio is obtained by dividing tier 1 capital and tier 2 capital by the risk-weighted asset i.e. $(\text{Tier 1 capital} + \text{Tier 2 capital}) / \text{Risk-weighted Asset}$. Tier 1 capital is the primary way to measure a bank's financial health. It is the core capital which can absorb losses without requiring the bank to cease business operations. It includes shareholders' equity and retained earnings, share premium, and other reserves. On the other hand, Tier 2 capital is supplementary capital which can absorb losses in the event of winding-up of a bank. It includes undisclosed reserves, asset revaluation reserves, subordinated debt, loan loss provision and foreign currency translation reserves.

The Central Bank of Nigeria (CBN) prescribes minimum CAR. The annual reports of Access Bank Plc for 2022 revealed the minimum CAR mandated by the CBN for deposit money banks designated and significant financial institutions was 16%. This ratio has remained constant since 2016. Capital adequacy is therefore necessary for the stability of banks. There is also evidence in the literature that capital adequacy is associated with the financial performance of banks (Chukwu & Egbunike, 2017; George & Chukwu, 2022).

2. 2. Theoretical framework

Human Capital Theory

The human capital theory posits that human beings can increase their production capacity through greater education and skills training. Critics of the theory argue that it is flawed overly simplistic and confounds labor with capital. In a simple word, human capital is the skills, knowledge and qualification of a person, group, or workforce considered as economic assets. Nothing is more important to a company, nation or individual than intelligence. Human capital theory was initially formulated by Becker (1962) and later by Rosen (1977). It argues that individual workers have a set of skills or abilities which they can improve or accumulate through training and education.

2.4. Empirical review

Capital adequacy is necessary to mitigate risk of solvency. Hasnaoui and Hasnaoui (2022) employed quarterly balanced panel data of banks between 2014 and 2019 in the Culf Co-operation Countries. The study used three different constructs of credit risk, namely the probability of default, a book value-based infection ratio and independent opinion of credit ratings, to assess the relationship with human capital efficiency. Controlling for different macro and firm-specific control variables including a dummy for technological innovation and a GARCH-based measure of oil price volatility, the study revealed that human capital efficiency was negatively related to the credit risk profile and banks with higher human capital efficiency tended to have lower credit risk.

Abiodun *et al.* (2020) examined the antecedents to capital adequacy using the data set of ten leading banks of Nigeria from 2007 to 2017. The results indicate that ROA and

loan to total assets are significantly associated with capital adequacy. However, it was found that nonperforming loans and size are negatively associated with the capital adequacy.

Harley *et al.* (2018) analyzed the determinant of capital adequacy of 8 banks in Nigeria from 2010 to 2016 and found that the net interest margin, return on assets, inflation, exchange rate, and size have a statistically significant adverse effect on the capital adequacy of Nigerian banks.

Chukwu *et al.* (2019) examined the effect of human capital on the market value of Nigerian banks based on three proxies of human capital and financial statement data from 2010 to 2014 and stock price data for the same period obtained from the Nigerian stock exchange. Results of the analysis showed that the proportion of highly paid employees had a significant effect on the market value of Nigerian banks. This indicates that investors' confidence increases as the strength of valuable stock of human capital in the payroll of banks also increases.

Oladele *et al.* (2018) investigated human resource accounting and corporate performance of a sample of 18 listed Banks in Nigeria capital market. Using primary data collected with the aid of a well-constructed questionnaire the study tests its formulated hypotheses using simple regression model. The result of the analyses revealed that human resources accounting has significant effects on the performance of banks studied.

Obiukwu and Okoye (2021) researched on the effect of human capital investment on the financial performance of NSE listed deposit money banks. The study purposively selected nine banks out of the fourteen listed deposit money banks on the NSE. It employed the ordinary least square regression method was used to validate its hypotheses with the help of E-view 9.0. Findings showed a significant positive effect of human capital investment on return on capital employed and earnings per share at a 5% significant level.

Edom *et al.* (2015) investigated the impact of human resource accounting on the profitability of a firm: empirical evidence from Access Bank Nigeria Plc., (between the period from 2003 to 2012). Secondary data from Access Bank Plc. for the period were obtained, and using the ordinary least square analytical technique, it was discovered

that there exists a significant positive relationship between human resource cost indicators (training cost, development cost and number of staff) the cost training, the cost of development, and the bank's profit.

Ikpefan *et al.* (2016) investigated human capital accounting and performance of microfinance banks (MFB) in Nigeria. The study made use of content analysis from financial statement of microfinance banks in Nigeria. Findings from the analysis revealed a significant relationship between human resource accounting and performance of microfinance banks.

Christian and Omodero (2016) in their study, examined the impact of the growth of human capital on banks' financial results in Nigeria. Statistical tools of multiple linear regression and student t-test were used for the study. The result was that there was no important correlation between human capital and banks' financial results.

Mohammad *et al* (2017), in their study investigated the impact of investment in human resource development on the financial performance of the banking sector of Bangladesh. The study used economic data, regression models and survey data for analysis. The study found a significant relationship between human resource development and investment and financial performance. Abraham *et al.* (2022) investigated the effect of human resource accounting on the performance of deposit money banks listed on the Nigerian Stock Exchange, for the period 2015-2019, specifically examining how staff remuneration, staff training and health care with safety of staff affect banks' performance. Using multiple regression analysis to test the hypothesis at a 5% significance level, findings revealed that, staff remuneration and health care with safety have no significant effects on market value (Tobin's q).

Imeokparia and Oyinloye (2020) study of the effect of human capital investment on financial performance of deposit money banks in Nigeria. Secondary data obtained from the annual reports of ten listed banks in Nigeria from 2010-2019 were used, and the results obtained showed that investment in human capital development had a positive and significant impact on ROA but negative and insignificant relationship with ROE.

3. METHODOLOGY

The study adopted ex-post facto research design. Ex-post facto research design was used because the study heavily relied upon existing (secondary) data. The population

of this study was fourteen (14) deposit money banks listed on the Nigerian Exchange Group as of 31st October 2022. Purposive and convenience sampling technique was used to select a sample of ten (10) deposit money banks which are Zenith Bank Plc., United Bank for Africa Plc., Access Bank of Nigeria Plc., Guaranty Trust Bank Plc., Fidelity Bank Plc., First Bank of Nigeria Plc., First City Monument Bank Ltd., Sterling Bank Plc., Wema Bank Plc., and Unity Bank Plc. Data were extracted from the audited annual financial reports of the sampled banks covering from 2016 -2022 as found on the banks' websites. In testing the hypotheses, ordinary least square (OLS) model was used.

Model Specification

Model 1:

$$CAR = a_0 + a_1TC_{it} + a_2EB_{it} + \varepsilon$$

Where: TC = Training cost

EB = Employee benefit

CAR= Capital adequacy ratio

a ;= Coefficient of the regression

i and t = Each bank and each year respectively

4. DATA ANALYSIS AND RESULTS

The study carried out data analysis using descriptive and inferential statistics. The descriptive data analysis covers presentation of the mean, minimum, maximum, and standard deviation of the research variables.

Descriptive Statistics

It offers the summary statistics for the research variable's mean, variance, standard deviation, minimum, maximum, skewness, and kurtosis values, among other measures of the core tendency.

Table 1.1 Descriptive Statistics

Variables	ET	EB	CAR
N	60	60	60
Minimum	.00	218167000.00	-2.14
Maximum	4753818000.00	62038000000.00	.26
Mean	975739566.6667	23433825550.0000	.0220
Std. Deviation	1103754898.48311	19977055249.61231	.52614
Skewness	1.510	.611	-3.392
Kurtosis	1.944	-.916	10.751

Note. SPSS 20.0 Output from Data Extracted from Annual Reports and Accounts.

The results on Table 1.1 shows the summary of descriptive statistics of employee training expenditure of listed banks in Nigeria. The results indicate employee training of listed deposit money banks in Nigeria as having the mean value standing at 975,739,567 and the standard deviation at 1,103,754,898 indicating a variance of the data around the mean. The result which shows a positive mean of employee training indicates symmetry among the sampled banks. The results show minimum value and maximum value of .00 and 4,753,818,000 respectively. Table 1.1 shows that the data of employee training is normally distributed as indicated by the Skewness and Kurtosis. Table 1.1 reveals that the sampled banks' average employee benefits of 23,433,825,550 on and a standard deviation of 19,977,055,249. Since the mean is greater than the standard deviation, the standard deviation suggests less fluctuation from the mean. The least value of employee benefits was 218,167,000 and the maximum value is 62,038,000,000. Table 1.1 reveals the capital adequacy ratios mean score is around 2%. This is less than the 10% requirement set by the Central Bank of Nigeria. The sample bank's capital adequacy ratio ranges from -2.14% to 26%.

Correlation Analysis

Correlation analysis examines the strength of the connection between each of the predictor variables on one hand and explanatory variables on the other hand. It also shows the extent of the association between a pair of explanatory variables. Aside the relationship, it also serves as first order test of presence of significant multicollinearity among the explanatory variables.

Table 1.2: Correlations

		ET	EB	CAR	Vif
Spearman's rho	ET	Correlation	1.000	.670**	.377**
		Coefficient			
		Sig. (2-tailed)	.	.000	.003
		N	60	60	60
	EB	Correlation	.670**	1.000	.553**
		Coefficient			
		Sig. (2-tailed)	.000	.	.000
		N	60	60	60
	CAR	Correlation	.377**	.553**	1.000
		Coefficient			
		Sig. (2-tailed)	.003	.000	.
		N	60	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS 20.0 Output from Data Extracted from Annual Reports and Accounts.

Table 1.2 displays the correlation coefficients between the independent factors and the dependent variable. The correlation matrix is also displayed, along with numbers that represent the Spearman correlation coefficient between each pair of study variables. The results of the Shapiro-Wilk test, which show that the data are not normally distributed and are all significant at 0.0000, led to the decision to use the Spearman correlation rather than the Pearson correlation.

Employee training and employee benefits have a favourable correlation between 2016 and 2021, as shown in Table 1.2. Furthermore, a correlation value of 67% shows a positive and somewhat direct association between the two research variables. This suggests that employee training and benefits move in the same direction.

Additionally, Table 1.2 reveals a positive and a significant connection between employee training and capital adequacy ratio (correlation coefficient of 37%, significant at 0.003 level). This suggests that improving staff training could improve the capital adequacy ratio, and vice versa.

A high degree of correlation between two independent variables is a sign that there may be a multicollinearity issue. Table 1.2 shows the correlation between each pair of independent is less than 0.8, suggesting that it does not meet the criteria for multicollinearity (Gujarati & Porter, 2009). The study also uses Variance Inflation Factors (VIF) as presented in Table 1.2 which revealed mean variance inflation factor (VIF) of 2.133 confirming absence of multicollinearity.

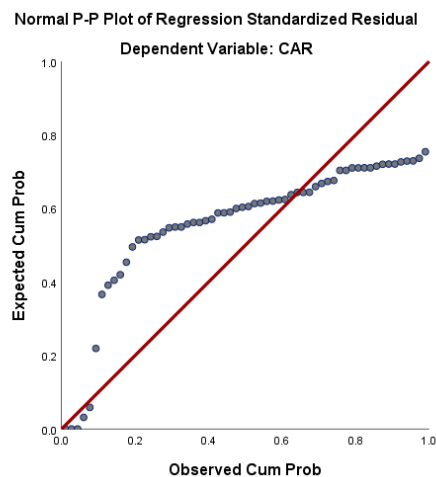
The study combines the *Kolmogorov Smirnov* test and graphical tests to validate the normality assumption on the residuals obtained from the model. The result of *Kolmogorov Smirnov* test as displayed in Table 1.3 shows that the p-value for model 1 is not significant at 1 percent, indicating that the residual is normally distributed.

Table 1.3. Kolmogorov Smirnov test for residual Normality

Variable	Observation	Statistic	Prob>z
Model	60	0.190	0.200

Note. SPSS 20.0 Output from Data Extracted from Annual Reports and Accounts

The standardized normal probability plot (p plot) as presented below shows that the curve indicates slight sign of non-normality at the center of the distribution which suggests that the residual's deviation from normality is negligible. Consequently, the study concludes that the residuals are close to a normal distribution.



Regression Results

To conduct a multivariate analysis of the relationship between human capital expenditure and capital adequacy ratio, the study estimated the empirical model using ordinary least square multiple regressions and presents the results in Table 4.1.

Table 1.4 Regression Results of Model 1 (Ordinary Least Square)

Variables	Coefficient	t-value	Probability value
Constant	-0.199	-1.151	0.255
ET	-0.175	-0.939	0.352
EB	0.360	1.930	0.050
R ²	0.069		
F stat	0.560		
p value	0.132		

Note. SPSS 20.0 Output from Data Extracted from Annual Reports and Accounts.

** indicate 5% level of significance.

Table 1.4 shows the R² of 0.069 (6.9%) which is the multiple coefficients of determination. It indicates that only 6.9% of the total variation in capital adequacy ratio of listed deposit money banks in Nigeria is explained by employee training expenditure and employee's benefits. This indicates that the model shows little influence on the extent of capital adequacy ratio of listed deposit money banks in Nigeria. Therefore, the study accepts the null hypothesis, thus, human capital expenditure has no significant effect on capital adequacy ratio of listed deposit money banks in Nigeria.

Test of Hypotheses:

Hypothesis 1: The effect of employee training cost is not significant on the capital adequacy ratio of listed deposit money banks in Nigeria.

Table: 1.4 shows that employee training has a negative coefficient (-0.175) and a probability value of 0.352. This suggests insignificant effect on capital adequacy ratio of deposit money banks in Nigeria. Therefore, the study fails to reject the null

hypothesis and conclude that, the effect of employee training is not significant on the capital adequacy ratio of listed deposit money banks in Nigeria

Hypothesis 2: The effect of employee benefits is not significant on the capital adequacy ratio of listed deposit banks in Nigeria.

The result in Table: 1.4 shows that employee benefits with a positive coefficient (0.36) and probability value of 0.050. This probability value indicates employee benefits have a significant effect on capital adequacy ratio. Hence, the study rejects the null hypothesis and concludes that there is a positive significant effect of employee benefit on capital adequacy ratio of listed deposit money banks in Nigeria.

Discussion of Findings

According to the study's findings, 1% increase of employee training expenditure would decrease capital adequacy ratio by 17.5% *ceteris paribus*. However, staff training expenses have no discernible impact on capital adequacy ratio. These findings suggest that employee training expenses of Nigerian deposit money banks do not significantly affect the capital adequacy ratio. As (CAR) is a measurement of a bank's available capital represented as a percentage of a bank's risk-weighted credit exposures, this may be as a result of training cost being an expense rather than an asset. This outcome refutes Oladele *et al.* (2018) which concluded that data on human capital was pertinent to the market value of the Nigerian banks that were sampled. This outcome was not anticipated because, in essence, spending money on staff training boosts profitability by cutting costs, which manifests as advantages like decreased turnover or fewer penalties for non-compliance. Additionally, training contributes to higher revenue through quicker sales growth and increased efficiency. It is predicted to have a higher CAR. The findings also imply that the expense of management training at Nigeria's listed deposit money banks does not affect their current adequacy ratio. Additionally, the capital adequacy ratio of the bank decreases as more of these deposit money is spent on employee training costs. Table 4.4 indicates that 1% increase of employee benefits will relate to increase of capital adequacy ratio by 36% Employee benefits have a considerable impact on capital adequacy ratio.

5. CONCLUSION AND RECOMMENDATIONS

The study examined the effect of human capital expenditure on the capital adequacy of a sample of listed deposit money banks in Nigeria. It viewed human capital expenditure in terms of employee training expenditure and employee benefit. Based on the result of the study, it is concluded that there is a significant correlation between human capital expenditure and capital adequacy of banks in Nigeria. This study therefore, put forward the following recommendations.

- i) Deposit money banks in Nigeria should give concerted consideration to employing more and investing more in human capital development, and slow down their investment in hi-tech which involves huge acquisition, installation and maintenance costs that go to boost and better the economy of the countries of their acquisition. Deliberate investment in human capital development by Nigerian banks will go long way to solving the problem of unemployment, technological underdevelopment, falling value of the naira and poor performance in the banking sector thereby contributing significantly to the country's economic progress.
- ii) Government, regulatory agencies and policy makers should collaborate with the monetary authorities in considering the formulation and enactments of policies and laws that favour increased investments in human capital development by banks, the overall resultant effect of which will lead to improved economic wellbeing.
- iii) Government and monetary authorities should consider the setting up of private public partnership in specialized human capital development training centres from where banks could draw highly skilled staff needs, as this will lead to lowering of employee training costs, and thereby lead to improved performance in the banking industry and the nation's economy.

Competing Interest: The authors declare that there is no competing or conflicting interest in this manuscript.

REFERENCES

Abiodun, S. W., Abdul-Azeez, A. A., & Adewale, Y. L. (2020). Determinants of capital adequacy of Nigerian banks. *Market Forces*, 15(1).1-15.

- Abraham, E. O., Odobi, O. D. & Enwuchola, R. O (2022). Effect of human resources accounting on performance of listed deposit money banks in Nigeria. *Journal of Accounting and Financial Management*, 8(4), 80-132.
- Alajmi, M., & Alqasem, K. (2015). Determinants of capital adequacy ratio in Kuwaiti banks. *Journal of Governance and Regulation*, 4(4), 315-322.
- Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70(5), 9-49.
- Central Bank of Nigeria (2020). Financial System Strategy (FSS) 2020. <https://www.cbn.gov.ng>
- Christian, N. W., Omodero, C. O. (2016). The effect of human capital development on financial performance of banks in Nigeria. *Global Journal of Human Resource Management*, 4(6), 34-47.
- Cetorelli, N. and Gambera, A. (2001). Banking marketing structure, financial dependence and growth international evidence from industry data. *Journal of Finance*, 56, 617-648
- Chukwu, G.J. & Egbunike, P.A. (2017). Chief Executive Officers' Human Capital and Firm Performance. *ICAN Journal of Accounting & Finance (Academic Conference Special Edition)* 3(1), 64 – 74
- Chukwu, G. J., Ugo, C. C., Osioma, B. C. (2019). Market valuation of human capital in Nigerian banks, *International Journal of Academic Research in Accounting, Finance and Management Sciences* 9(1), 21-29.
- Diez, J. M. Ochoa, M. L. Prieto, M. B. & Santidrian, A. (2010). Intellectual capital and value creation in Spanish firms. *Journal of Intellectual Capital*, 11(3), 348-367.
- Edom, G. O., Adanma, E. S., & Inah, E. U. (2015). The impact of human resource accounting on the profitability of a firm: empirical evidence from Access Bank of Nigeria Plc. *European Journal of Accounting, Auditing and Finance Research*, 3(8), 76-94
- George, P. O. & Chukwu, G. J. (2022). Related Party Transaction and Income Smoothing in Nigerian Listed Commercial Banks: The Moderating Effect of Capital Adequacy. *Current Journal of Applied Science and Technology*, 41(44):43-52. <https://doi.org/10.9734/cjast/2022/v41i444011>.
- Gujarati, D. N., & Porter, D. C. (2009). *Essentials of Econometrics* (4th ed.). McGraw-Hill/Irwin.

- Harley, T. W., Afolabi, T. S., & Adegbola, D. D. (2018). An empirical investigation of the determinants of capital adequacy of financial institutions in Nigeria. *International Review of Social Sciences*, 6(7), 376-386.
- Hasnaoui, J. A., & Hasnaoui, A. (2022). How does human capital efficiency impact credit risk? the case of commercial banks in the GCC. *The Journal of Risk Finance*, 23(5), 639-651.
- Ikpefan, O., Kazeem, B. L. O. & Taiwo, I. N. (2016). Human capital accounting and performance of microfinance banks in Nigeria. *Research Journal of Finance and Accounting*, 6(1), 136-153.
- Imeokparia, L. & Oyinloye, J. B. (2020). Effect of human capital investment on financial performance of deposit money banks in Nigeria. *Sokoto Journal of Social Sciences*, 10(3), 83-94.
- Klonoski, R. (2016). Defining employee benefits: A managerial perspective. *International Journal of Human Resource Studies*, 6(2), 52-72.
- Kucharčíková, A. (2014). Investment in the human capital as the source of economic growth. *Periodica Polytechnica Social and Management Sciences*, 22(1), 29-35.
- Mohammad, Z. H., Mahi, U., Afzal, A., & Nazamul, H. (2017). Does investment in human resource development affect financial performance? Empirical evidence from the banking sector of Bangladesh. *IIUC Studies*, 14(2). 35-54.
- Obiukwu, E. J. & Okoye, E. I. (2021). Effect of human capital investment on financial performance of deposit money banks listed on Nigerian Stock Exchange. *Research Journal of Management Practice*, 1(8), 1-10.
- Oladele, P. O., Aribaba, F. O., Lateef, A. O., & Ajayi, O. M. (2018). An empirical study of human resource accounting disclosure on financial performance of selected listed firms in Nigeria. *The journal of accounting and management*, 8(2), 70-82.
- Pahuja, P. & Malhotra, P., (2017). A literature review on training and development and qwl – impact on marketing professionals. *Biz and Bytes* 8(1), 108-116.
- Rajan, R. G. and Zingales, L. (1998). Financial dependence and growth. *American Economic Review*, 88, 556-586.
- Rosen, S (1977). Human capital: a survey of empirical research. in Ronald G. Ehrenberg. *Res Labour Econ* 1,3-39.
- Tapomoy, D. (2006), *Strategic approach to human resources management, concepts, tools and application*. Atlantic Publishers and Distributors.
- Vafaei, A., Taylor, D. & Ahmed, K. (2011). The value relevance of intellectual capital disclosures. *Journal of Intellectual Capital*, 12(3), 407-429

