

Human Capital and Organization Performance: A Case of Deposit Money Banks in Nigeria

Festus Olumide Fawehinmi¹, Albert Ilugbemi²

Abstract: The study investigates the impact of human capital on the performance of the deposit money banks in Nigeria from 2007 to 2019. Previous related empirical studies have made use of primary data approach which might be highly subjective. The study used expenditures on human resources to proxy human capital while profit after tax is used to proxy performance. The sample covered ten banks which include the five first-tier lenders that hold almost 80% of the entire banking sector asset in Nigeria. Panel data is applied as estimating technique. The result shows that human capital does not have significant positive impact on performance of the banks. However, total asset of the banks remains the most important determinants of performance of the banks. This is an indication that expenditure on human capital reduces the profit of the banks as against the conclusions of some researchers that used primary data. More so, most of the operations of the banks are now capital intensive. The approach used in the study has unraveled the reason behind the incessant staff turnover experienced in the Nigerian banking sector

Keywords: Human Capital; Organizational Performance; Deposit Money Banks

JEL Classification: G21; J24; J20

1. Introduction

Human capital development has become a global issue in human resource deployment practices and this spreads across various sectors including the banking sector. This makes the need to develop employee's knowledge and skills in contemporary organizations germane to the achievement of both financial and non-financial performance of the organization. While a wide range of issues remained thorny within this context, one of the leading contentious issue remains whether expenditure on human capital have been able to provide required stock of human capital, that is; knowledge, skills and experience to drive and attain that desired level of bank performance in Nigeria.

¹ PhD, Department of Economics, Kings University, Nigeria, Address: Gbongan Road, Ode Omu, Nigeria, Corresponding author: dejanafawe@gmail.com.

² Department of Banking and Finance, Federal Polytechnic Ado Ekiti, Ekiti State, Nigeria, Address: Ado - Ikare Rd, Ado Ekiti, Nigeria, E-mail: adelekeomolade@yahoo.com.

It is undisputable that the banking sector of Nigeria is one of the most vibrant sectors in the Nigerian economy with its usual lead on the activity chart at the stock market in terms of volume especially within the last two decades. Gberevbie (2012) noted that a vital challenge of the Nigerian banking sector is performance and this has been in existence from inception. He remarked that lack and shortage of competent manpower is among the core challenges which have made it impossible for the banks to execute its mandate and that is why the sector has witnessed a lot of ups and downs which have made the projected banking sectors contributions to the GDP of Nigeria by IMF in 2007 unachievable. According to Sanusi (2012), the problem of the banking sector in Nigeria is multifaceted and it ranges from inconsistency government policies to a bloated work force with low labour per capita-output.

Again, the high rate of labour turn over ratio in the Nigerian banking sector over the last two decades has been adjudged to be highest in the history of banking sector in Nigeria. Over 5000 staff of the entire banking sector lost their jobs within the last five years alone (NBS, 2019). This calls to question the impact of human capital on the performance of the banks. It is believed that if these human capital being laid off often have been contributing very well to the performance of these banks they are not expected to be laid off massively within the shortest intervals (). However, there are quite a few studies on human capital and banking sector performance in Nigeria. Some studies have established shortage and deficit of competent employees in the Nigerian banking industry as among the numerous factors that have contributed to ineffective operational performance to their customers (Ugoji, Mordi & Ajonbadi, 2014; Olalere & Adesoji, 2013; Sanusi, 2012). Sanusi (2012) admitted that knowledge gap of regulatory requirements cum standards among bank employees has been a major factor which has contributed to the inconsistent service quality and service delivery failure of commercial banks in Nigeria to customers while Olalere and Adesoji (2013) admitted that there was a challenge of qualified personnel to support the industry's rapid expansion. With the literacy level of Nigerian bank customers of today about risk, costs, and returns associated with various financial services, studies have shown increasing rate of dissatisfaction regarding the quality of banking services provided by the Nigerian banks to their customers (Woldie, 2003). Apparently, the knowledge gap of bank services among bank employees was what informed the remark by Kehinde and Oladayo (2007), that no employee can be effective and efficient on the job, until they acquire and develop sufficient knowledge about the job.

From the available literatures, it appears that previous studies were more concerned about the effect of the human capital on customers banking relationship than the performance of banks as organization. Again, a host of these studies used primary data analysis which has been deemed to be highly subjective and encourages limitation in coverage or scope of research. Based on these foregoing, this study will investigate the impact of human capital on the performance of deposit money banks

and secondary data that will encourage more banks to be covered in the analysis will be applied.

2. Literature Review

There are quite a few studies on Nigeria that are related to the impacts of human capital on performance of the banks. However, a host of studies do exit outside the country. The following are reviews of some of the studies.

Obikwelu (2018) investigated the impact of human capital development on the manufacturing sector in Nigeria. It spanned through the period 1982 through 2016. The data used for the work were sourced from the Central Bank of Nigeria (CBN) statistical bulletin 2016 and the World Bank Development Indicators 2017. Ordinary least square was used in the study. The results revealed that human capital development has a positive relationship with manufacturing output, though statistically significant. This shows that for the manufacturing sector to achieve impressive level of output, there is need for human capital development to take place.

Abosede, Eze and Showumi (2018) examined the effect of human resource management (measured by: Reward management, Employee performance management and Employee resourcing) on non-financial performance of banks in Nigeria (measured by: market share, employees' satisfaction, efficiency, productivity and service quality). The study employed survey research design, by administering structured questionnaire to three hundred and ninety seven (397) purposefully selected members of staff of human resources, finance and strategy departments of eight deposit money banks in Nigeria. Ordinary least square (OLS) was employed to estimate the model, with the aid of STATA version 14. The findings revealed that human resource management significantly affects banks' non-financial performance (F-value= 19.22 * 0.0000 at 5% level of significance). The findings further revealed that Reward management and Employee performance management both have significant effect on the non-financial performance of banks in Nigeria, while Employee Resourcing does not have a significant effect on the non-financial performance of banks in Nigeria.

Widarni and Malang (2015) examined the influence of human capital elements on performance of the manufacturing sector in West Java, Indonesia. The survey involves 250 Small Medium Enterprises (SMEs) and 897 respondents. Correlation and regression analysis were used for data analysis. Result revealed that employee educational level and experience are associated with SME's performance. In another related study carried out in the banking industry by Oyinlola and Adeyemi (2014) on human capital development and organizational performance. Primary source of data was used with questionnaire as research instrument. A total of 302 bankers in Osun State was involved in the survey with the use of judgmental and simple random

sampling techniques. Data analysis was carried out through descriptive statistics, particularly with the use of means and standard deviations, while ANOVA and Pearson Correlation Analysis were employed to examine the relationship between the explanatory and dependent variables and the level of significance of the relationship. It was found that significant relationship exists between human capital development and organizational performance in the banking industry.

In the comparative study of Gidado, Kusairi, and Muhamad (2014) into the human resource development investment in banking organizations in Malaysia and Nigeria, it was clearly pointed out that human capital expenditure in both countries has been on the rise. African Development Bank report of (2015) also confirmed increase in the spending on human capital development on bank employees for over one and half decades in Nigeria. This was attributed to the shift in banking operations in the country that has been more ICT driven and the need to make their employees more knowledgeable about the new applications have made them to invest heavily into training and retraining of staff.

Bingilar and Etale (2014) examined the impact of human resources development on performance of academic staff in Nigerian Universities in Nigeria. Through a survey of two Universities in Bayelsa State, data were obtained from the annual reports of the Universities covering the period from 2010 to 2014. The relevant data were subjected to statistical analysis using the multiple regression technique. The study established a positive significance between human resource development and performance of academic staff in Nigerian universities. Olalere and Adesoji (2013) conducted a research on human capital development in First Bank of Nigeria PLC and made use of quantitative and qualitative methods (questionnaire and key informant/in-depth interviews) with 200 bankers involved. Data analysis was carried out through frequencies, tables and percentages for quantitative while the qualitative data were subjected to content analysis. They established it that human capital development programmes improve the skills, attitude and the performance of staff of the bank.

In a study conducted in Pakistan by Khan (2010) on the effects of human resource development practices on organizational performance among oil and gas companies involving 150 managers of 20 randomly selected firms and data analyzed with factor analysis and regression analysis, it was revealed that human resource development practices have positive and significant effect on organizational performance. This was purely carried out with primary data.

In conclusion it is clear from the review that more of the studies focused on human capital and performance of other entities and not banks. Again, some investigated the relationship between human capital and another variable, while the few that did something similar to the study applied primary data approach which led to limitation in their scope.

3. Methodology

3.1. Research Design

This study uses secondary data approaches to achieve the stated objective. The secondary approach adopted the panel data methodology to analyze the impact of human capital development on bank performance in Nigeria. Tobias and Themba (2011) and Baltagi (2008) described the benefits associated with Panel data methodology to include the ability to control individual heterogeneity, less colinearity variables and track trends in the data. Therefore, the choice of panel data is informed by the fact that the study tested for some selected performance measures of deposit money banks with regards to human capital development over a time period.

3.2. Population of the Study

Population is the collection of individual, group or organization within a defined territory. It entails the whole set of individual, group or organization the researcher is interested in (Hair, Black, Babin & Anderson, 2010). In this perspective, it is the collection of all the commercial banks in Nigeria. According to the Central Bank of Nigeria, there were nineteen (19) commercial banks in Nigeria as at December 2017. These are First Bank of Nigeria Plc., United Bank for Africa Plc., Union Bank of Nigeria Plc., Zenith International Bank Plc., Guaranty Trust Bank Plc., Access Bank Plc., Stanbic IBTC Bank Nigeria, Diamond Bank Plc., Skye Bank Plc., Wema Bank Plc., First City Monument Bank Plc., Fidelity Bank Plc., Sterling Bank Plc., Unity Bank Plc., Ecobank Nigeria Plc., Citibank Nigeria Limited, Heritage Bank, Keystone Bank Ltd., and Standard Chartered Bank Plc.

3.4. Sampling and Sampling technique

The study includes ten of the banks in the analysis and these include the five big banks which are called the first tier lenders. These five banks hold almost 85% of the total asset of the entire banking sector in Nigeria and over 60% of the total deposit in the banking sector. These are Access Bank, First Bank, United Bank for Africa, Zenith Bank and Guarantee Trust Bank. Notwithstanding, five other banks are joined to the five to make ten banks in all.

3.5. Model Specification

The financial performance indicators of the banks are as follows, return on equity ROE, return on asset ROA, earning per share EPS and profit after tax PAT among others. Due to the problems of non- availability of data for all the banks and as it is used in the studies of Somoye (2000), PAT is chosen and it is used as a measure of financial performance of the banks. Consequently, the model to be estimated is stated thus:

$$\ln PAT_{i,t} = \ln A + \alpha_1 \ln TA_{i,t} + \alpha_2 \ln EPS_{i,t} + \alpha_3 \ln H_{i,t} + \alpha_4 \ln intr_{i,t} + e_i \dots \dots \dots (3.1)$$

Where, all the variables are as defined before.

3.6. Estimation Techniques

The study shall adopt the panel data regression analysis to analyze the impact of human capital development on bank performance in Nigeria.

There are four possibilities and options when it comes to panel data regression which is reviewed below:

3.6.1 The Fixed Effect Model

The term “fixed effect” is due to the fact that although the intercept may differ among firms, each firm’s does not vary overtime, that is time-variant. This is the major assumption under this model i.e. while the intercept are cross-sectional variant, they are time variant.

i. Within-Group Fixed Effects

In this version, the mean values of the variables in the observations on a given firm are calculated and subtracted from the data for the individual, that is;

$$Y_{it} - \hat{Y}_i = \sum_{i=2}^k \beta_i (X_{ijt} - X_{ij}) + \delta(t - \bar{t}) + E_{it} - \bar{E}_i \dots \dots \dots (3.8)$$

And the unobserved effect disappears. This is known as the within groups regression model.

ii. First Difference Fixed Effect

In the first difference fixed effect approach, the first difference regression model, the unobserved effect is eliminated by subtracting the observation for the previous time period from the observation for the current time period, for all time periods. For individual *i* in time period *t* the model may be written:

$$Y_{it} = \beta_i + \sum_{j=2}^k \beta_j X_{ijt} + \delta t + \omega_i + E_{it} \dots \dots \dots (3.9)$$

For the previous time period, the relationship is

$$Y_{it-1} = \beta_i + \sum_{j=2}^k \beta_j X_{ijt} - 1 + \delta(t-1) + \omega_i + E_{it-1} \dots \dots \dots (3.10)$$

Subtracting (3.8) from (3.7) one obtains.

$$\Delta Y_{it} = \sum_{j=2}^k \beta_j \Delta X_{ijt} + \delta + E_{it} - E_{it-1} \quad \text{-----} \quad (3.11)$$

while unobserved heterogeneity has disappeared.

iii. Least Square Dummy Variable Fixed Effect

In this third approach known as the least squares dummy variable (LSDV) regression model, the unobserved effect is brought explicitly into the model. If we define a set of dummy variables A_i , where A_i is equal to 1 in the case of an observation relating to firm i and 0 otherwise, the model can be written

$$Y_{it} = \sum_{j=2}^k \beta_j X_{ijt} + \delta t + \sum_{i=1}^n \alpha_i A_i + E_{it} \quad \text{-----} \quad (3.12)$$

Formally, the unobserved effect is now being treated as the co-efficient of the individual specific dummy variable.

3.6.2 Random Effect Model

Another alternative approach known as the random effects regression model subject to two conditions provide a solution to a problem in which a fixed effects regression is not an effective tool when the variables of interest are constant for each firm and such variables cannot be included.

The first condition is that it is possible to treat each of the first unobserved Z_p variables as being drawn randomly from a given distribution. This may well be the case if the individual observations constitute a random sample from a given population.

If

$$Y_{it} = \beta_j + \sum_{j=2}^k \beta_j X_{ijt} + \delta_t + \alpha_i + E_{it} = \beta_j + \sum_{j=2}^k \beta_j X_{ijt} + \delta_t + \mu_{it} \quad \text{----} \quad (3.13)$$

where: $\mu_{it} = \alpha_i + E_{it}$

The unobserved effect has been dealt with by subsuming it into the disturbance term.

The second condition is that the Z_p variables are distributed independently of all the X_j variables. If this is not the case, α_i , and here μ , will not be uncorrelated with X_j variables and the random effects estimation will be biased and inconsistent

4. Results And Discussions

This aspect of the paper presents the empirical results and interprete them accordingly. The results are discussed and relevant inferences are drawn.

The variable used to proxy financial performance indicator of the banks is profit after tax PAT. The model is estimated using panel data analysis. The results of the panel data using both the fixed and random effects are presented in Tables 1 and 2 respectively.

Table 1. Fixed effect Results

Variables	Coefficient	Standard Error
Constant	-2.26e+07	1.33e+07
TA	.0211148**	.0032471
H	-.1284902	.1370424
EPS	.105402**	.06281696
INTR	584710.2	644032.7

$$R^2 = 0.8452(\text{within}) R^2 = 0.8448(\text{overall}) F(4,116) = 158.37 \text{Prob} > F = 0.0000$$

Source: Author's computation, 2020.

Table 2. Random Effect Results

Variables	Coefficient	Standard Error
Constant	-7167774	1.28e+07
TA	.0205682**	.00305
H	-.2527531	.1151057
EPS	.1007415**	.005846878
INTR	-57622.09	.6336138

$$R^2 = 0.7533 (\text{within}) R^2 = 0.7498 (\text{overall}) \text{Wald } \chi^2(4) = 374.04 \text{Prob} > \chi^2 = 0.0000$$

Source: Author's computation, 2020.

The results in Tables 1 and 2 reveal that human capital development impacts on the financial performance of banks in both the fixed and the random effects model gives consistent results but with a slight difference. In the fixed and the random effects results the coefficient of human capital development are -.1284902 and -.2527531 respectively. The coefficients are negative in the two results but while the coefficient is significant in the random effect, it is not significant in the fixed effect estimated model.

The general implication of the results is that human capital development does not have significant positive impacts on the financial performance of the banks. It should be noted that human capital development is proxied by the expenditure on human capital wages, training and development and profit after tax is used to proxy financial performance. The result appears to follow the normal relationship existing between profit and cost, since expenditure raises the cost of production and increase in cost

of production reduces profit. It further implies that the gains from the human capital development of the banks have not been able to outweigh the cost.

Again, total asset of the banks which represents the capital of the banks is shown to be a significant factor affecting the financial performance of the banks. The coefficients of the total asset in both the fixed and random effects estimated models are .0211148 and .0205682 and they are statistically significant at 1%. This shows that total asset of the banks is a very important factor affecting the financial performance of the banks more than the human capital development.

Earnings per share EPS is another financial performance indicator included in the model and for both the fixed and random effects estimated models the coefficients are .105402 and .1007415 and they are both significant also at 1%. This shows that there is strong association between the two financial performance indicators. The implication is that an increase in the earning per share of the banks will significantly increase the profit after tax (PAT) of the banks and hence, improve the financial performance of the banks.

The overall R squares in both models are very high thus showing that all the variables used as independent variables have significant joint effect on the financial performance of the banks. The overall R squares in both the fixed and random effects models are 0.8448 and 0.8485 respectively. The implication is that about 84% systemic variation in the financial performance of the banks is explained by the independent variables namely; total asset, human capital, earning per share and interest rate.

The F test and the WALD tests in the fixed and random effects model respectively are to test the strength of the estimated models. The F statistics value of 158.37 and the chi square value of 688.61 for both the fixed and the random effect estimated models are significant at 1% level. This shows that the two models are significant. Therefore, it can be concluded that total asset, human capital development, earning per share and interest rate will jointly influence the financial performance of the banks significantly.

Again, the Hausman test is conducted to help us select the better result between the two static panel results namely; fixed and random effects. The result of the hausman test is presented in Table 3.

Table 3. Hausman test

Variables	Fixed Effects (b)	Random Effects (B)	Difference (b-B)	Standard Error sqrt(diag(V_b-V_B))
TA	.0211148	.0205682	.0005465	.0014078
H	-.1284902	-.2527531	.1242629	.0827648
EPS	105402	100741.5	4660.48	2836.278
INTR	584710.2	-57622.09	642332.3	206000.7

Test: Ho: difference in coefficients not systematic $\chi^2(11) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 11.46$, $Prob > \chi^2 = 0.0032$, (V_b-V_B is not positive definite)

Source: Author's computation, 2020.

Table 3 presents the results of the Hausman test using the fixed and the random effects estimated models on the impacts of human capital development on financial performance of the banks. The chi square generated from the result is 11.46 and the probability is 0.0032. This indicates that fixed effect result is better. Notwithstanding, the results from both are almost similar.

Cross Sectional Dependence Test

From the pool OLS, the test of cross sectional dependence is conducted to find out if some or all the banks possess bank specific characteristics that may affect the generalization of the estimated results on the effect of human capital on financial performance across all the banks used in the study. The result is presented in table 4

Table 4. Breusch-Pagan/Pasaran Cross-Sectional Dependence Test

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	72.44619	28	0.0000
Pasaran scaled LM	4.870327		0.0000
Pasaran CD	-0.661319		0.5084

Source: Author's Computation, 2020.

Results for the Table 4 show that the statistics of both breusch-pagan and pasaran are significant. Hence, the study concludes that some of the banks possess specific characteristics that might affect generalization of our result if pool OLS is relied upon therefore the use of both the random and fixed effect. In addition, the static panel models are further adjusted for likelihood of cross sectional dependence and the result is presented in Table 5.

Table 5. Cross-Sectional Time-Series FGLS Regression

<i>Coefficients: Generalized least squares</i>		
<i>Panels: Homoscedastic</i>		
<i>Correlation: Common AR(1) coefficient for all panels (0.7914)</i>		
Variables	Coefficient	Standard Error
TA	.0204446**	.0038216
EPS	.1050556**	.05897514
H	-.3337749	.1505173
INTR	-.4795675	.8118853
Constant	1968629	1.65e+07

Wald chi2(4) =847.64 , Prob> chi2 = 0.0000

Source: Author's Computation, 2020.

The estimated results presented in Table 5 have been adjusted for cross-sectional dependence. This means that cross-sectional correlations in the estimated static panel models have been removed and the parameter estimates remain consistent. This is evident in the signs of the parameter estimates as well as their levels of statistical significance. The estimated results further confirm the fact that there exist a negative relationship between financial performance and human capital development.

Total asset, EPS and interest rate maintain their levels of significance and sign in the adjusted model for cross-sectional dependence. The implication of the results is that the findings in the static panel models can be generalized for all the banks since the cross-sectional dependence problem has been removed.

5. Conclusions and Recommendations

The results on the relationship between human capital and financial performance of the bank indicate that there is no significant positive relationship between the two. The finding shows that there exists an inverse relationship between them but in most cases the relationship is not significant.

Financial performance of the banks is proxied by profit after tax while human capital development is proxied by human capital expenditure which includes total personnel cost as well as expenditures on training and workshops. The scenario is that these expenses are capable of increasing the cost of operations of the banks and consequently encroach more on their revenue with the resultant adverse effect on their profit level. For instance, the study concludes that human capital development might not have significant positive impact on financial performance of the banks. In fact, in most of the results, inverse relationship is obtained and the conclusion flows with the findings from other studies that banks try to reduce their workforce in order to improve their financial performance because this will help them reduce human capital development expenditure.

The study used profit after tax to proxy financial performance of the banks and as cost rises profit after tax falls. Therefore, since human capital expenditure adds to the cost of operations of the banks, it appears that the effect on costs outweighs the return on investment.

As a follow up to the conclusion in the previous paragraph, it appears that banks in the country are more conscious about the short run and immediate financial gains on investment in human capital unlike studies from some advanced countries where financial gains outweighs the expenditures on human resources and therefore increase in human capital development expenditure contributes positively to their financial performance. In addition investment in human capital development have more of long run financial gains than short run but it appears that banks in Nigeria cannot exercise the needed patience for their investment in human capital development to start translating to financial gains, rather, they try to reduce their work force to cut expenditures on human capital and thus improve their financial performance.

The study recommends that banks should be encouraged to employ moderate and skilled human capital that will have positive impact on their performance rather than accumulating staff which will not contribute positively to their performance and which they will later turn out unceremoniously thereby adding to the already worsened unemployment problem of the country.

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