Human Resource Accounting and Profitability of Deposit Money Banks in Nigeria

Worimegbe, Temitope Mariam (PhD)¹, AKINYEDE Oyinlola Morounfoluwa (PhD)², OJEDELE Mofoluwaso Iyabode (PhD)³

ORCID ID: 0000-0001-7549-6600
¹Department of Accounting, Redeemer's University PMB 230, Ede, Osun State, Nigeria.
E-mail: topeoluwa2K2@yahoo.com, worimegbe@run.edu.ng
ORCID ID: 0000-0001-6587-0531
²Faculty of Management Sciences, Department of Finance, Redeemer's University, Ede Osun State, Nigeria.
E-mail: foluesan@gmail.com, akinyedeeoo@run.edu.ng
ORCID ID: 0000-0003-3066-1646
³Faculty of Management Sciences, Department of Accounting, Redeemer's University, Ede Osun State, Nigeria.
E-mail: ojelelem@run.edu.ng, foluojedele@gmail.com

ABSTRACT:

This study is a build-up of the previous investigation by various scholars and researchers on the appraisal of Human Resource Accounting and its impact on the financial performance of corporate organizations. The study made use of secondary data. The study used purposive (non-judgmental) probability sampling to select twelve (12) deposit money banks operating while adopting IFRS and still active.

IINTRODUCTION

Human resource is a term that alludes to the set of individuals who make up an establishment's workforce or a business element. This may be ascribed to the apparent expanding recognition within the business network of the significant major stakeholders append to socially and environmentally mindful corporate conduct (Enofe, Mgbame et al, 2013).

Human resources and reporting by corporate organizations are still at the inception stage in Nigeria (Okpala and Chidi, 2010). In Nigeria, some sectors that have invested in human resources and practised human resources accounting at different levels include the banking, manufacturing, and oil and gas sectors, amongst others. The investments by these sectors in human capital development usually are not reflected in their statement of financial positions as assets but expensed in the income statement (Micah, Ofurun & Ihendinhu, 2012).

Profitability is the ability to increase the worth for the business owners (stakeholders) through all avenues, especially with an increase in the periodic profits (divided) and the market price of the company's share. Profitability is a measure of performance (Belghitar, Clark and Kassimatis, 2019).

Abdulahi and Kirfi, (2012) confirmed that the theory of human resource accounting appears valid, but there is still a lack of an adequate standard for its valuation. They see the practice of human resource accounting in developing countries, most notably in Nigeria, as a reality as human resource is not disclosed in financial statements. They argued that the current accounting practice lacks regard for human resource as an asset and have significantly discouraged the use of any or a mixture of estimation method(s) in evaluating human resource and detailing it in the financial statement of organizations.

Organizations need to place more emphasis on the skills, knowledge, competence, and intellect of employees rather than a physical asset of a company. The difficulties in recognizing and measuring human capital in financial statements have led companies to disclose costs expended on human resources in the opinion of comprehensive income as an expense instead of recording it as an asset in the financial position of an organization (Bonsu, Dui, Ruwen, Asare and Prempel, 2019).

The research focus of the study is explicitly to examine the effect of Employee Salary, Employee Benefits Cost and Personnel Expense on the Return on Equity of Deposit Money Banks in Nigeria.

Relevant Research Questions

(i) How do Employee Salary, Employee Benefits Cost and Personnel Expense significantly affect the Return on Equity of Deposit Money Banks in Nigeria?
Relevant Research Hypotheses (Null form)

H0: Employee Salary, Employee Benefits Cost and Personnel Expenses do not significantly affect the Return on Equity of Deposit Money Banks in Nigeria.

2 LITERATURE REVIEW

2.1 Conceptual Review of the Study

2.1.1 Human resource accounting

Human resource accounting, in basic terms, is accounting for the cost and the corresponding value of people in the financial statement of an organization to improve information in decision-making by various users of financial statements. (Arkan, 2016; Flamholtz et al. 2002; Bullen and Eyler (2010). Rahaman, Hossain, and Akter (2013) gave an explicit meaning of HRA as the means of estimating the cost brought about by business firms and different organizations to enrol, select, employ, train and build up human resources. This definition gives a view regarding what expenditure on human resources ought to be perceived for valuation and reporting purposes. As it were, HRA includes the measurement of the monetary value of individuals to organizations.

Akintoye, Awoyami, Jayeoba and Ifayemi (2016) stressed that there are difficulties in measuring and reporting human resources in monetary terms in the financial statement of an organization due to its characteristics, quantification in economic terms, method of reporting, lack of universal approach to its reporting, low level of awareness and acceptance of the technique.

2.2 Theoretical Framework of the Study

The theory to be adopted is the Value Theory and the theory of profitability. The value theory views that the measurement of the value of employees should focus on the value they can create for their organizations while rendering their services. The soundness of the human resource valuation under this theory depends wholly on information, judgment, and impartiality of the estimates and guessimates. Notable contributors under this approach are Flamholtz (1971), Kaplan and Norton (1996), Monti-Belkaoui and Riahi-Belkaoui (1995), and Zula and Chermark (2007).

2.3 Empirical Review

Davies (2018) empirically investigated the connection between human resource accounting and shareholders' profitability of Nigerian stock exchange manufacturing firms in Nigeria from 2000-2016. The study hypothesized that Return on investment is a function of human resource accounting's capital and revenue expenditure components. The coefficient of the independent variables proved that salaries, wages and bonuses have a positive relationship with Return on investment for the investigated firms. In contrast, commission and allowances have a positive effect on Return on investment. It concludes that human resource accounting has a significant relationship with the shareholders' profitability of firms.

Human Resources is a vital and significant asset of organizations not included in the statement of financial position. Bonsu, Dui, Ruiwen, Asare, and Prempeh (2019) ascertained the relationship between human resource Accounting and a firm's performance by examining the factors contributing to the exclusion of Human Resources Accounting in the firm's statement of financial position using companies listed on the Ghana Stock Exchange as a case study. The findings revealed human resources undoubtedly contribute to a firm's financial growth, as indicated by the positive effect on Return on Equity (ROE) despite the difficulties of including HR in the financial statement.

Micah, Ofurun and Ihendinihu (2012) studied the relationship between firms' financial performance and human resource accounting disclosure of companies in Nigeria using five years of financial data and found that the combined effect of firms' financial performance accounted for 75.9% of the variation in human resource accounting disclosure. They established a positive correlation between Return on Equity and Human Resource Accounting Disclosure. According to them, this positive correlation supposes that an increase in Return on equity encourages firms to reveal human capital data to establish patriotism with stakeholders, enhance external reputation, appear legitimate in the public eyes and avoid cost for non-legitimacy. They concluded that human resource accounting information of an organization is a crucial factor for decision-makers in an era of a knowledge-based economy.

Enofe, Mgbame, Otuya and Osie (2013) researched human resources accounting disclosures in Nigeria quoted firms focusing mainly on the relationship between firms' financial performance and human resources accounting disclosures. Their study discovered that a positive relationship exists between a company's financial performance and its level of Human Resource Accounting Disclosure (HRAD). The researchers focused on the disclosures of human resource accounting alongside the firm's financial performance. Still, they did not consider other factors that could be used to measure human resource accounting, such as salaries, employee benefits, cost etc.

Abubakar (2009) found that the volume of investments in human resources generally made by corporate firms and the implication of such investments on the productivity level of the human resource justify their remedy and recognition as assets rather than expenses. He added that the arrangements against the concept of Human Asset Accounting (HAA) and its application are issues that can be significantly resolved.
In Asia, Avazzadehfat and Rajashekar(2011) conducted a study on Iranian companies and concluded that a lack of Human Resources Accounting (HRA) disclosures in financial statements would lead to an obliquity of users. According to them, the study results show that the use of HRA information in financial statements has an incremental impact on individuals’ decision-making process to stock investment statistically. Their result also revealed that HRA information could be critical in internal managerial decision-making. Its measures can be used to show that investment in a company's human resources may result in long-term profit for the company.

Ahangar (2011) reported that human capital contributes significantly to performance which can be measured in growth. According to him, Human Capital Efficiency (HCE), Physical Capital Efficiency (PCE), and Asset Turnover Ratio (ATO) significantly influence the company performance as measured by growth and further confirm that human capital is more efficient than structural capital. Thus this implied that human asset is a core factor that affects organizational growth.

The findings of Perera (2012) on the impact of measuring and reporting human resources on investment decisions in Sri Lanka established the fact that there is a significant relationship between measuring and reporting human resources and corporate investors’ stock acquisition decisions and disposal decisions.

### 2.3.1 Gaps in Literature

Most of the authors whose works were reviewed in this chapter narrowed down their study to the impact of Human resource accounting on a company’s financial performance and the relevance of HRA information in the managerial decision-making of companies. To the best of the researcher’s knowledge, there has been no concrete research on the impact of human resource accounting on the profitability of deposit money banks.

To fill the gap in the literature, this study attempts to examine the relationship between Human resource accounting and the profitability of deposit money banks in Nigeria and also for the organizations to see the need to place more emphasis on the skills, knowledge, competence and intellect of employees rather than a physical asset. This study is carried out on twelve (12) deposit money banks in Nigeria.

### 3 METHODS

This study adopted the ex-post research design to show how the various independent variables affect the financial performance of each deposit money bank yearly. The population for this study consists of twenty-one (21) deposit money banks in Nigeria, as stated in the Nigerian Stock Exchange after the banking recapitalization in 2011. The study made use of purposive (non-judgmental) probability sampling. The sample size of twelve (12) deposit money banks that were in operation during the adoption of IFRS and were still active. The sample consisted of twelve deposit money banks, namely Access Bank, Guaranty Trust Bank, Zenith Bank, Sterling Bank, Stanbic IBTC Bank, Union Bank, Unity Bank, United Bank of Africa (UBA), First Bank of Nigeria, Eco Bank, Wema Bank and First City Monument Bank. The period of study covered seven (9) years, 2011-2019. This is in accordance with the annual financial reports available in relation to the stated number of years

**Model Specification**

The independent variable for the study is Human Resource Accounting (employee salary, employee benefit cost and personnel expense). At the same time, the dependent variable is Financial Performance (return on equity).

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on equity- (Dependent Variable - ROE&lt;sub&gt;i,t&lt;/sub&gt;)</td>
<td>ROE= Net income/Shareholder's equity</td>
</tr>
<tr>
<td>Employee salary (Independent Variable – ES&lt;sub&gt;i,t&lt;/sub&gt;)</td>
<td>Measured as the remuneration an employee receives from an organization</td>
</tr>
<tr>
<td>Employee benefit cost (Independent Variable – EBC&lt;sub&gt;i,t&lt;/sub&gt;)</td>
<td>Measured as the cost that an organization incurs in compensating its employees other than wages and salaries.</td>
</tr>
<tr>
<td>Personnel expense (Independent Variable – PE&lt;sub&gt;i,t&lt;/sub&gt;)</td>
<td>Measured as the expenses incurred by an organization, including wages, benefits, benefits, and payroll taxes.</td>
</tr>
</tbody>
</table>

Source: Researchers computation, (2020)

Using mathematical and linear forms;

\[ Y = f(X) \ldots \ldots (1) \]

\[ Y = \text{Profitability} \]

\[ y_t = \text{Return on equity} \]

\[ X = \text{Human resource accounting} \]

\[ x_t = \text{employees' salary} \]
implies that the greater the Efficiency
Table 4.2 (Return on Equity
One of the
4.2 Correlation
Source: Authors (2021
4.1
Of consistency in the
Personnel Expe
positively skewed with
between their mean and
estimated model and consistency of the residual.
Employee Benefit
Table 4.1 show
4.1
Of u is the error term
Where:
b1, b2 and b3 are coefficients
u is the error term
4. DATA ANALYSIS AND INTERPRETATION
4.1 Descriptive Statistics of Variables
Table 4.1 shows the descriptive statistics of independent and dependent variables. The mean value of Employee Salary was 291.8837, that of Employee Benefits Cost was 1230440, while that of Personnel Expenses was 35098288 and had a mean value of 11.62502. The median of Employee Salary, Employee Benefits Cost, Personnel Expenses and Performance was 154.5000, 862685.0, 29505233 and 14.25660, respectively. The standard deviation of Employee Salary was 757.9595, while that of Employee Benefits Cost was 1252683, Personnel Expenses and Performance had a standard deviation of 22542542 and 48.18464, respectively. To achieve the study's objectives, the variables were logged, which will also enhance the robustness of the estimated model and consistency of the residual. Table 4.1 shows that all the variables displayed a moderate level of consistency, as the difference between their mean and the median is not significant. The mean of all the variables is greater than their median, which implies that the variables are positively skewed with the tendency for positive outliers, which shows that they are asymmetrical. This, by implication, means that Employee Salary and Personnel Expenses can improve the performance of Deposit Money Banks in Nigeria. The result of the descriptive statistics showed evidence of a lack of consistency in the payment of Employee Benefits Cost in Deposit Money Banks in Nigeria
4.1 Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>291.8837</td>
<td>1230440.</td>
<td>35098288</td>
<td>11.62502</td>
</tr>
<tr>
<td>Median</td>
<td>154.5000</td>
<td>862685.0</td>
<td>29505233</td>
<td>14.25660</td>
</tr>
<tr>
<td>Maximum</td>
<td>5874.000</td>
<td>7811116.</td>
<td>93395000</td>
<td>102.4797</td>
</tr>
<tr>
<td>Minimum</td>
<td>-1441.000</td>
<td>51792.00</td>
<td>6567658</td>
<td>-394.3180</td>
</tr>
<tr>
<td>Std.Dv</td>
<td>757.9595</td>
<td>1252683.</td>
<td>22542542</td>
<td>48.18464</td>
</tr>
<tr>
<td>Skewness</td>
<td>4.799638</td>
<td>2.450950</td>
<td>0.707780</td>
<td>-6.890315</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>36.19086</td>
<td>11.17593</td>
<td>2.466976</td>
<td>60.33004</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>4277.710</td>
<td>325.6332</td>
<td>8.198396</td>
<td>12459.19</td>
</tr>
<tr>
<td>Probability</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Sum</td>
<td>25102.00</td>
<td>1.06E+08</td>
<td>3.02E+09</td>
<td>999.7517</td>
</tr>
<tr>
<td>Sum Sq.Dev</td>
<td>48832715</td>
<td>1.33E+16</td>
<td>4.32E+16</td>
<td>197349.6</td>
</tr>
<tr>
<td>Observations</td>
<td>86</td>
<td>86</td>
<td>86</td>
<td>86</td>
</tr>
</tbody>
</table>

Source: Authors (2021)

4.2 Correlation
One of the study's objectives was to establish the relationship between Employees' Salaries, Employee Benefits Costs and Personnel Expenses on the Return on Equity of Deposit Money Banks in Nigeria. To achieve this, a Pearson correlation matrix was used to test the effect of the independent variables (Employees' Salary, Employee Benefits Cost and Personnel Expense) on the dependent variable (Return on Equity). The results of the analysis are shown in Table 4.2.

Table 4.2 revealed that Employees' Salary there had a significant and positive effect on Return on Equity (PFM) (t=0.1884**, p-value<0.01). The result implies that the greater the Efficiency of Employee Salary (Empl. Sal), the greater the level of firm performance is likely to be realized.
Furthermore, the results also revealed that Employee Benefits Cost (Empl. Ben. Cost) had a significant and positive effect on Return on Equity (PFM) ($t=0.1265**$; $p$-value<0.01). This result indicates that firm performance is likely to increase with an increase in Employee Benefits Cost (Empl. Ben. Cost).

Still, from the correlation matrix, the results further revealed that Personnel Expenses (Pers. Exp.) had a significant and positive effect on firm performance ($t=0.0855**$; $p$-value<0.01). This result implies that paying attention to Personnel Expenses (Pers. Exp.), the more likely will be the performance of the firm.

These findings align with previous results of the earlier research on Human Resource Accounting and Firm Performance (PFM). Many researchers' studies have shown that Firm performance (PFM) correlates positively to Human Resource accounting (Perera, 2012; Ahangar, 2011) and are therefore supported by this research finding.

### Table 4.2 Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Empl. Sal</td>
<td>1</td>
<td>0.00451104…</td>
<td>-0.1088828…</td>
<td>0.18835184…</td>
</tr>
<tr>
<td>Empl. Ben. Cost</td>
<td>0.00451104…</td>
<td>1</td>
<td>0.22548502…</td>
<td>0.12652016…</td>
</tr>
<tr>
<td>Pers. Exp.</td>
<td>-0.1088828…</td>
<td>0.22548502…</td>
<td>1</td>
<td>0.08553456…</td>
</tr>
<tr>
<td>PFM</td>
<td>0.18835184…</td>
<td>0.12652016…</td>
<td>0.08553456…</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Analyzed Data, 2021

### 4.3 Effect of Human Resource Accounting on the profitability of Deposit Money Banks in Nigeria.

The model for the analysis of the effect of Human Resource Accounting on the profitability of Deposit Money Banks in Nigeria is as shown in equations 1 and 2 and repeated below:

\[ Y = f(X) \]  
\[ Y = f(x_1, x_2, x_3) \]

It was necessary to carry out some tests because panel data were involved. The first test was on Random Effect, the result of which was presented in Table 4.3. The second test was on Fixed Effect, the result of which was in Table 4.3. The selection of the appropriate model from the two models was achieved by carrying out Hausman's test. The second test was on Fixed Effect, the result of which was in Table 4.4. The selection of the appropriate model from the two models was achieved by carrying out Hausman's test. The result of Hausman's test is presented in Table 4.5.

The decision rule was that:

- $H_0$: To accept $H_0$, $p$-value must be greater than 0.05
- $H_1$: To accept $H_1$, the $p$-value must be less than 0.05

($H_0$ means Random Effects while $H_1$ means Fixed Effects)

### Table 4.3 Random Effects Result of the effect of Human Resource Accounting on the Return on equity of Deposit Money Banks in Nigeria

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.378058</td>
<td>11.85495</td>
<td>0.116243</td>
<td>0.9077</td>
</tr>
<tr>
<td>PERSONNEL_COMPENSATION</td>
<td>4.28E-06</td>
<td>4.70E-06</td>
<td>0.711497</td>
<td>0.3647</td>
</tr>
<tr>
<td>PERSONNEL_EXPENSES_000</td>
<td>1.37E-07</td>
<td>2.72E-07</td>
<td>0.502931</td>
<td>0.6163</td>
</tr>
</tbody>
</table>

Effects Specification
For the analysis of this study, panel data analysis procedures were used; from Table 4.4, the result showed that human resource accounting has a positive effect on the financial performance of selected deposit money banks in Nigeria proxied by Return on equity but at an insignificant level. This implied that the deposit money banks’ profitability was influenced by factors other than HRA.

This study conforms to the Value theory, which explains that the measurement of the value of employees should focus on the value they can create for their organizations while rendering their services. The soundness of the human resource valuation under this theory depends wholly on the estimates and guesstimat es’ information, judgment, and impartiality. Notable contributors to this approach are Flamholtz (1971), Kaplan and Norton (1996), Monti-Belkaoui and Riahi-Belkaoui (1995), and Zula and Chermack (2007).

Human resources accounting should not be optional, given the enormous resources they command. It should be institutionalized so that it is practised wherever there is the presence of Deposit Money Banks.

Results from Table 4.4 showed the detail of the Hausman test results. This test is applied for the decision purpose of selecting a random or fixed effect model. After fixed and random effect models based on the Hausman test effect, it was concluded that the fixed effect model was best suited for this study because $\rho$-value is less than 1%. This decision of the fixed effect model is best for this study analysis which was supported by the view of Gujarati and Dawn (2008).
Table 4.5 Hausman Test on Effects of Human Resource Accounting on the Return on Equity of Deposit Money Banks in Nigeria

Correlation Random Effects – Hausman Test

Test period random effects

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period random</td>
<td>0.0209415</td>
<td>2</td>
<td>0.9854</td>
</tr>
</tbody>
</table>

Source: Analyzed Data, 2016

<table>
<thead>
<tr>
<th>Variable</th>
<th>Fixed</th>
<th>Random</th>
<th>Var(Diff.)</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONNEL_COMPENSATION</td>
<td>0.000003</td>
<td>0.000004</td>
<td>0.000000</td>
<td>0.8693</td>
</tr>
<tr>
<td>PERSONNEL_EXPENSES_000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.9713</td>
</tr>
</tbody>
</table>

Source: Analyzed Data, 2021

5. Conclusion

The study examined the effect of human resource accounting on the financial performance of deposit money banks in Nigeria. Based on the summary, human resource accounting has no significant impact on the financial performance of the selected deposit money banks in Nigeria

6. Recommendation

Based on the findings stated above, the following recommendation should be set in place;

1. Deposit money banks should invest more in human resources for it to be significant and make an impact on profitability.

2. Deposit money banks should make provisions for employee training and employee replacement cost. These were not provided in the annual reports of the deposit money banks.

REFERENCES


Things to do

Update the data

Write up on profitability – introduction – conceptual framework

Update reference

Data analysis and results