
HUMAN CAPITAL ACCOUNTING AND RETURN ON INVESTMENT OF QUOTED DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT

This research investigated the relationship between human capital accounting and return on investment of quoted deposit money banks in Nigeria during the period 2012 to 2022. Human capital accounting was employed as the independent variable, whereas return on investment was used as the dependent variable of study. Recruitment cost, training and development cost as well as salaries and wages cost comprised the proxies for the independent variable while return on investment was treated as a mono variable. This current research employed secondary data collected from published annual financial statements of quoted deposited money banks between 2012 to 2022. The panel data were analysed by the use of E-view I software. The results showed positive and significant relationship between training and development, recruitment cost and return on investment, while salaries and wages had insignificant relationship with return on investment. Based on the study findings it was recommended that Money deposit banks in Nigeria should consider the capitalization of human capital cost- (Recruitment Cost, Training and Development Cost & Salaries and Wages Cost) as strategic investment options, review the present accounting information that reflects training and development costs such as recruitment, salary and wages, internal and external staff training and not to associate the low or high return on investment to the expenditures on salaries and wages.

Keywords: Recruitment cost. Training and development Return on investment. Salaries and Wages. Money Deposit banks.

Introduction

Deposit money banks have traditionally played an important role in financing various sectors of the economy especially in developing nation like Nigeria. This is because deposit money banks are involved in financial intermediation process which entails channeling funds from the surplus units to the deficit units of the economy, thus transforming bank deposits into loans or credit (Ujah & Amaechi ,2005). Deposit money banks function in various dimensions in economy which include: acceptance of deposit from customers for safekeeping, lending to customers, provision of loans and overdraft, discounting bills of exchange. It is important to state that of all these functions mentioned, deposit money banks major operation is the acceptance of deposits and granting of loans to customers. An efficient financial intermediation function of deposit money bank will boost the micro-economic growth process which is the productive capacity of the economy. Aliyu and Yusuf (2013) reasoned that a developed financial sector should reflect the ease of entrepreneurs with sound projects to obtain financial resources and the confidence with which investors anticipate adequate returns. Essential to the operations of banks is the concept of human capital accounting.

Human capital is an asset whose value is recognized in a given period provided it is developed, placed and used in the right direction. Until recently, organizations have made efforts to assign monetary value to human capital in their accounting practices. Different researchers in the field of accounting have initiated efforts to develop an appropriate method to understand the value of human capital for an organization. They are opposed to conventional accounting practice regarding the lack of valuation of the human capital of the organization along with physical resources. The traditional concept suggested that expenditure on human capital should be treated as a tax on income, because it does not create any physical assets. Kehinde (2014) observed that there has now been a change in this concept and the cost of an asset such as Human Capital should be treated as investment expenditure because it provides benefits that can be obtained for a long time and could be measured in monetary terms.

Becker (2010) defined Human Capital Accounting as a language used by the accountancy profession to qualify the costs and value of employees to their employing organization. In recent years, bank and Other Financial Institution have been paying increasing attention to staff training (human capital development). Due to the complexities of human nature, the research on human capital has always remained very essential. It is so important, because all other units of management are financially and materially unproductive without human intervention. Ejiofor (2001) posits that humans are unpredictable and their actions and reactions are dependent on many contingencies. Thus, the former observed that employees in organizational setting exhibit diverse characteristics, while some work hard and are particularly cooperative, enthusiastic and happy; others are unproductive and tend to be unhappy. Generally, workers in banking firms are perceived to be educated and intelligent. As such, they reason in diverse ways; are more unpredictable and more difficult to understand and manage in work setting. It therefore follows that in dealing with human capital the firm must ensure that the right quality and quantity of staff are recruited for optimum benefit.

After the industrial revolution era, skill requirement increased as technology became more sophisticated and workers gained more power in the organization. Hence the need for manpower development which is a process of intellectual and emotional achievement by providing the means by which people can develop in their positions. This applies to a series of activities that the company will take to improve its management capabilities. According to Hermanson (2004), people are the ultimate foundation of the nation's wealth. The present application is also applicable to the organization, which means that with the daily growth and complexity of organizational activities and the issue of ensuring optimal performance that is quickly challenging and is key to managing the organization, training and development of staff must be a top priority if the organization must continue to enjoy maximum employee productivity (Nzewi, 2013).

In modern organizations, the increasing spate of technological change has made manpower the major ingredient among economic units; wellbeing and wealth. Hence, it is generally accepted that human capital resources endowments are vital factors that determined the wealth, earning, growth, and productivity of an organization, nations and individuals. In this era of high ICT innovation and applications, banking firms have no choice but to recruit and invest in human capital that has the ability to use ICT devices to achieve optimal performance. The main goal of the company's establishment is usually to achieve profits and to achieve organizational goal. Appropriate human resources development plans and programs should be introduced to improve the results. The human capital variables should focus on staff training, development expenses and prompt remuneration, promotion

which would serve as sources of motivation since every one wants to enjoy recognition and be cared for. Thus, effective personnel policies that help rather than hinder the accomplishment of goals must be devised and implemented by well-trained human resource experts (Koko, 2005).

This therefore gives credence to the reasoning that the hallmark of every human capital policy is that it should lead to positive returns in form of Return on investment, and net profit margin. As fantastic as any human capital policy could be, it would amount to nullity if at the end it does not result in shareholders wealth maximization, and other benefits that enhance growth and survival (Onyenze, 2016). Consequent upon the above assertions, human capital accounting becomes paramount in order to keep adequate financial record of human capital cost for accountability and measurement of output against cost and standard. No organization would deliberately hire employees that are not productive. From time to time, firms incur cost on recruitment, maintenance, remuneration, training and development of workers, which impacts on the firms return on investment and net profit margin (ROI and NPM). The purpose of this current research is to empirically investigate the relationship between human capital accounting and return on Investment which is a measure of financial performance of quoted deposit money banks in Nigeria.

LITERATURE REVIEW

Theoretical Review

Theory of human capital: This theory is made popular by economists like Becker (2004), Mincer (2008,2002), Schultz (2000,2001) and Ben-porah (2007) who laid the foundation that the cost of learning to work is a very important part of the net advantage. They further opined that income varies due to the size of investments in human capital development. Since training is regarded as an investment, it involves costs and benefits, which can be assessed by using financial criteria such as net profit margin and return on investment. Initially, Becker (2002) studied the impact on wage levels of two types of human capital operating in a perfectly competitive labour market that had no imperfections distortions.

The form of human capital can be transferred to other organizations that encourage employees to cover costs and achieve all the benefits of education. The theory of human capital is based on neoclassical theories on labor markets, education and economic growth. It is assumed that employees are productive resources and try to find out if highly educated employees are more productive than other employees (Simon, 2008). According to Garcia (2005), because employees do not receive significant increases due to increased productivity after participating in special training, they will not be motivated to finance their own educational requirements. On the other hand, companies will want to cover these education costs, because they will get almost all returns from improving the efficiency generated by new skills (Garcia, 2005).

So, Becker (2004) theorized that “human capital theories” elaborated the relationship between labor capital and the growth of family and society and the influence of capital labor theory on income and the repaying rate of labor capital theory. It also discussed the problems of the repaying rate of college education and middle school education, the relationship among age, profits, wealth and labor capital. The theory asserted that widespread commitment in human capital creates in the labor-force the skill-base indispensable for growth of economic agent. It thus captured that the survival of the human capital reserve has been said, for example, to explain the rapid reconstruction achieved by the Dutch peoples

during World War II. Human capital comes from every activity that can increase the individual productivity of employees. In practice, full-time education is far too fast as the main example. In the case of employees, investments in human capital involve both direct costs and costs in past due revenues. Employees who make investment decisions compare the attractiveness of alternative future revenues and flows of consumers, some of which increase future income as opposed to higher current education costs and delayed consumption. The return on social investment in human capital can in principle be calculated in a similar way. Empirical research suggests that even if some of the observed volatility of earnings, probably due to skills, learned the percentage of unexplained variance is still high and should be the property of an imperfect structure and function in the labor market rather than the productivity of a person supplying labor.

Bowles questioned the conventional economic assumptions that people only motivated their own interest. In Bowles, he believes he can pay the structure, the individual attributes that are valued on the labor market and social conditions in the educational process can only be explained by the analysis of class structure and class (Bowles, 2005). Becker claims that every employee is a capitalist who works in his own interest. Becker expanded the theory of human capital by analyzing the relationship between earnings and human capital. Becker is responsible for developing a systematic framework for studying return on education and training in the workplace, in addition to wages differences and wages profiler over time (nobelprize.org 2007). This frame is the main reason why Becker was chosen for the Nobel Prize.

Conceptual Review

Human Capital Accounting

In the views of Kirfi and Abdullahi (2012); Flamholtz (2004); Okafor (2010) and Jeroh (2013), Human capital accounting is the process of identifying and reporting the investments made in human capital of an organization that are presently not accounted for in the conventional accounting practices. It involves measuring the costs incurred by the business firm and other organizations to recruit, select, hire, train and develop human capital. Human capital accounting can be described as the process of identifying, measuring and communicating information about human resources in order to facilitate effective management within an organization. Human capital is a term used to describe the capacity of individuals who constitutes the workforce of an organization.

In Corporate finance, Human capital is one of the three basic components of intellectual capital (which apart from material assets includes the entire value of the enterprise). Human capital is the value that employees of the company provide thanks to their skills, knowledge and experience. It is the combined human ability of the organization to solve business problems. Human capital is inseparable from man and cannot be the property of an organization. That is why human capital leaves the organization when people leave. Human capital also includes the effectiveness of the use of human resources by the organization measured by creativity and innovation. The reputation of an enterprise as an employer affects the human capital it derives. (Gibbons, *et al.*, 2004). Human capital is also the name of the group within an organization charged with the overall responsibility for implementing all strategies and policies of the organization on the other hand, accounting is viewed as a child of production (Melville, 2009) production according to him can be either the creation of tangible goods provision of general services to satisfy human wants. The major and known factors of production are land, labour and

capital. While every firm annual reports covers land and capital in its account of stewardship, labour is not given much attention hence its expenditure is only represented in the periodic cost statement. The labors of the firm or its employees are the human capital or assets the firm has.

Dimensions of Human Capital Accounting

Recruitment cost: Recruitment cost is the total amount used for recruitment which starts with a position to become a member of the organization, then advertisement and selection. In other words, it can also be at the expense of the Applicant. Analysis of recruitment costs is required to ascertain the financial results of the total cost incurred by the organization or company in hiring. Most recruiters are not aware of this and therefore cannot determine whether their recruitment was cost effective or not. In order to calculate the company's financial results, it is necessary to take into account the costs of recruitment, so it is important to calculate the total amount spent during recruitment.

Training and development cost: There has been a general resistance to investment in training in organizations until recently because of the presumption that employees hired under a merit system are qualified and trained for their jobs (Okotoni & Erero, 2005). It was further assumed that if that was not the case then it means that initial selection of personnel was faulty (Stahl, 1956). This assumption no longer holds as the need for training became evident in all sectors (Okotoni and Erero, 2005). Training offers a way of “developing skills, enhancing productivity and quality of work, and building worker loyalty to the firm”. Training has become the Holy Grail to some organizations, evidence of how much the management truly cares about its workforce (Hamid, 2011). Hamid (2011) went further to say that the effectiveness with which organizations manage, develop, motivate, involve and engage the willing contribution of those who work in them is a key determinant of how well these organizations perform.

Salary and wages cost: Salaries and wages cost refers to a collection of practice and procedures used for planning and distributing company-wide compensation programs for employees usually incurred by employer. For this cost to be treated as an asset, it has to provide benefits to the company beyond the current accounting period and its benefits not consumed totally within the current financial period to avoid being expensed. The practice includes employees at all levels and are usually handled by accounting department of a company. Wages and salaries usually involve activities such as calculating the numbers of hours worked in order to determine compensation, administering employees. Wages and salaries in an organization is one of the most important aspects of a job for most workers paid to them. It provides incentives to be production and loyal to an employer. In a broader sense, the wages and salaries of workers earn, ignite the economy.

Return on Investment (ROI)

This measures the rate of return on ownership interest (shareholders equity) of the common stockowners.it measures the efficiency of a firm at generating profit from each unit of shareholders equity also known as net asset or asset minus liability (Investopedia)

ROI shows how well a company uses investment made by the shareholders to generate earnings and growth. ROI is a performance indicator or measure used to evaluate the efficiency of an investment or it compares the efficiency of a number of different investments. ROI tries to directly measures the

amount of return on a particular investment relative to the investment's cost, which is why in calculating ROI the benefits or return on an investment is divided by the cost of investment, the result is expressed as a (%) percentage or ratio.

ROI Calculation and Formula:

ROI = (NET PROFIT/COST OF INVESTMENT)

In the above formula, current value of investment refers to the proceed obtained from the sales of the investment of interest, because ROI is measured as a percentage. It can be easily compared with returns from other investment, allowing one to measure a variety of types of investment against one another.

Empirical Review

Some empirical works have been done in the past that relates to human capital development and firms performance. For instance, Omodero and Ihendinihu (2017) examined human resource accounting and financial performance of firms in Nigeria: evidence from selected listed firms on the Nigerian stock exchange. The study specifically determined the extent to which human resource influence the firms profit after tax, total revenue and net asset. The hypotheses formulated have been tested with a 5% significance level using SPSS and much regression analyzes as a statistical tool. The result showed that PBC has a significant and positive impact on PAT, while it has a negative impact on net assets. This study shows that the share of human resources in the economic development of enterprises cannot be overestimated. Companies should have an educational culture, develop and motivate employees to do everything they can for the growth of their organizations.

Ofurum and Adeola (2018) investigated the correlation that existed between Human Resource Accounting and Profitability of quoted firms in Nigeria. The study uses the salaries of employees as an accountant for Human Resources; on the other hand, net operating profit and return on capital employed were used as an indicator of profitability. The study used secondary data from verified financial statements from nine (9) service companies listed on the Nigeria stock exchange (NSE) in 2011-2015. The collected data was analyzed using the normal minimum torque correlation coefficient (OLS) and Pearson Product moment. "R" using statistical package for social sciences (SPSS) version 20, the results showed that there is no significant correlation between human resource accounting and the profitability of the aforementioned company. It was recommended that employees be well remunerated for remuneration and remuneration in order to make the best use of them. Executives should make retirement attractive to attract the best brains to relevant companies and entrepreneurship, and this should be a well-coordinated program for employees whose corporate profitability and efficiency requires positive development.

Ikpefan, *et al.*, (2015) examined human capital accounts and results for MFIs in Nigeria. The study used, in particular, the analysis of the content of the annual financial statements and financial statements of the examined microfinance banks. A total of 320 collected surveys were used for data analysis. The data were analyzed using (parametric and non-parametric techniques) appropriate descriptive and inferential statistical techniques. In general, 314 samples (representing 98.4% of the sample) agreed that expenditure on human resources should be activated and treated as assets rather than depreciation of income. The study also shows that human resource accounting has a significant impact on MFB performance. The study recommends the accounting profession around the world should create a frame

work in the balance to recognize the treatment of human resources and the appropriate value placed in Human Capital-built characteristics.

Edom, *et al.*, (2015) analyzed the impact of settling human resources on the viability of Access Bank in Nigeria Plc, in the years 2003-2012. Using the common analytical technique of the smallest squares, secondary data from the Access Bank of Nigeria Plc, their results showed that there is a positive relationship between human resources indicators (training costs, development costs and the number of employees) and the profit of the organization (Access Bank Plc). It was also found that there is a significant relationship between the costs of education, development costs and profits of the bank. They noted, however, that the number of employees did not have a significant impact on the bank's profits. They recommended the organization should increase the maintenance of training and training for staff to avoid wasting research investment. In addition, accounting standards should include accounting standards for the valuation and publication of human resource accounting.

Ikpefan, *et al.*, (2017) carried out an appraisal of human capital accounting on performance of Micro Finance Banks (MFB) in Nigeria; specifically using content analysis of the annual reports and financial statements of the sampled Micro Finance Banks. A purposive sample of Sixteen (16) Micro finance banks out of the thirty-four (34) existing in Ogun state was investigated. Random sampling technique is used to select respondents in each Micro Finance Banks cutting across directors, employees and shareholders of the Micro Finance Banks. A total of 320 collected questionnaires were used for data analysis. The data were analyzed using (parametric and non-parametric techniques) appropriate descriptive and inferential statistical techniques. A total of 314 of the sample (representing 98.4% of the sample) agreed that human resources expenditure should be capitalized and treated as assets rather than write off to profit and loss accounts. The study also shows that human resources accounting has a significant effect on MFBs performance. The Study recommends that the accounting profession the world over should create a frame work in the balance sheet to recognize treatment of human resources and appropriate value be attached on the inherent qualities of human capital.

Imeokparia (2009) found that Nigeria companies are active in human resource and intellectual capital reporting. Most Nigerian companies report human resource and intellectual capital in the sundry section of the annual report such as the managing directors report, chairmans statement and value-added statement. The study showed human resource accounting and intellectual capital information by line count and one-third by frequency count.

From the foregoing, the following hypotheses were raised in their null forms to address the research objectives;

H0₁: There is no significant relationship between recruitment cost and return on investment (ROI) of quoted deposit money banks in Nigeria.

H0₂: There is no significant relationship between training and development costs and return on investment (ROI) of deposit money banks in Nigeria.

H0₃: There is no significant relationship between staff salaries/wages cost and return on investment (ROI) of deposit money banks in Nigeria.

Methodology

Research Design:

The research design adopted was Ex-post-facto research design. This was because of the complex relationship that exists between the variables and to measure the accurate relationship that exist between human capital accounting and financial performance such as ROI of money deposit banks in Nigeria.

Population of the Study: The target population of this study includes all money deposit banks in Nigeria. Available information from the Central Bank of Nigeria revealed that twenty-two (22) deposit money banks are licensed in Nigeria.

Sample Size Determination: It was discovered that of all the banks operating in Nigeria only fifteen are quoted, and because of that number, the determination of sample size was ignored and census techniques was adopted limiting the size to 14 quoted Deposit Money Banks.

- (1) Access Bank Plc
- (2) Ecobank Plc
- (3) Fidelity Bank Plc
- (4) First Bank Nigeria Limited
- (5) First City Monument Bank Plc
- (6) Guaranty Trust Bank Plc
- (7) Sky Bank Plc
- (8) Stanbic IBTC Bank
- (9) Sterling Bank Plc
- (10) Union Bank of Nigeria Plc
- (11) United Bank for Africa Plc
- (12) Unity Bank Plc
- (13) Wema Bank Plc
- (14) Zenith Bank Plc.

Nature and Source of data: The data for this work is secondary data which were obtained from the certified copies of the bank's financial statements. data from the return on investment and Net Profit Margin (the dependent variables proxies), and the data on the independent variable proxies- training and recruitment cost, Staff Development Cost and Salaries and Wages Cost were dully obtained. The study relied on the financial statements of Deposit Money Banks which was audited annually by external and internal auditors.

Data Collection Method: In other to achieve the sourcing of adequate data for the realization of the set objectives of this research which will lead to solving the stated problems, data were obtained from the published financial records of money deposit banks in Nigeria for the period of 2012-2022, also as obtained from Nigeria stock exchange and the website of the banks.

Operational Measures of Variables:

Operationally, the variables in this work were measured based on their relationships. That is, the expected relationship between the dependent and the independent variables.

The dependent variable: The dependent variable is measured by the return on investment (ROI) of banks as published in their financial statements under study covering the period 2012-2022.

Independent variables: The dimensions of the independent variable are broken down into recruitment cost, training and development cost and salary/wage cost. The data were extracted from published financial statements of the money deposit banks within the period 2012-2022. In all these, the major interest of the financial manager is to examine the financial implication of the HCA and how it will yield positive return to the organization.

The dependent variable: The proxies to measure the dependent variable financial performance are return on investment (ROI) of banks as published in their financial statements under study covering the period 2012-2022.

Return on Investment

Return on investment (ROI) measures the gain or loss generated on an investment relative to the amount of money invested. ROI is usually expressed as a percentage and is typically used for personal financial decisions, to compare a company's profitability or to compare the efficiency of different investments. The return-on-investment formula is:

$$\text{ROI} = (\text{Net Profit} / \text{Cost of Investment}) \times 100$$

Model specification

The model for this study comprises of the dependent and the independent variable which are to be analyzed and tested using an econometric technique (e-view 10 series). The model will help to test the formulated hypothesis and aid in achieving the objectives of the study. In agreement, functional interplay between firms performance and the chosen explanatory variables (different proxies of human capital accounting and size) is shown thus;

Functional Form

$$FP = f(\text{SRC}, \text{STD}, \text{SWC}) \dots\dots\dots 1$$

From equations 1, gives;

Mathematical Form

$$FP = f(\text{SRC} + \text{STD} + \text{SWC}) \dots\dots\dots 2$$

Using equation 2 gives;

Econometric Form

$$FP = \beta_0 + \beta_1 \text{SRC} + \beta_2 \text{STD} + \beta_3 \text{SWC} \dots\dots + \epsilon_{i,t} \dots\dots 3$$

Econometric model for moderator regression

$$FP = \mu_0 + \mu_1 HCA + \mu_2 SZ + \mu_3 HCA * SZ + \dots + \epsilon_{i,t} \dots 4$$

- Where FP = Financial Performance
- ROI = Return on Investment
- SRC = Staff recruitment cost
- STD = Staff training development cost
- SWC = Salary/wages cost

The ROI and is used as the dependent variable, while the SRC, STD and SWC are used as the explanatory variables in the models.

The $\beta_0 \mu_0$, are the intercept, $\beta_1, \beta_2, \beta_3, \mu_1, \mu_2$ and μ_3 are the unknown parameters (the slopes) and the ϵ is the error term (stochastic variable). The a priori expectations are as follows; $\beta_1, \beta_2, \beta_3, \mu_1, \mu_2, \mu_3 > 0$, return on investment is positive and significant function of human capital accounting to the extent that an increase in the dimensions of human capital accounting (SRC, TDC and SWC would cause a positive and significant increase in money deposit banks return on investment (ROI) and vice-versa.

Method of Data Analysis Technique

The Ordinary Least Square (OLS) technique was adopted for this study. This regression technique is a statistical tool that can be used to predict a variable from the second variable based on the assumed nature of dependencies between variables (Oyeka, 2006

Validity and reliability of data

Reliability of data: The financial statements obtained from the central banks of Nigeria were dully certified by the auditors to the banks.

Validity of data: In order to ascertain face and content validity of this work, the data were presented for scrutiny before it could be used for analysis.

Results and Discussion

Bivariate Data Analysis

Test of Hypotheses

H₀₁: There is no significant relationship between Recruitment Costs and Return on Investment (ROI) of Money Deposit Banks in Nigeria.

The results for the test of hypothesis using simple regression model were presented in the equation below:

$$ROI = 0.409 + 1.560e-07 * RC \quad \text{----- (1)}$$

[25.355] [2.690]
(0.0000) (0.0080)

$$R^2 = 0.047 \quad \bar{R}^2 = 0.040, WD = 1.643, F\text{-statistic} = 7.235, \text{Prob}(F\text{-statistic}) = 0.008$$

$$\text{Akaike info criterion} = -0.653$$

The model in Equation 1 above shows positive intercept and gradient of the co-efficient of recruitment cost, this simply means there is positive interaction between the dependent and independent variable

is in a positive direction. Also, the r-square value (0.047) simply indicates 4.7% variation in dependent variable (Return on Investment) that is explained by the independent variable (Recruitment Cost) and this account for the linear relationship that exist between them. Similarly, the above model shows that the Recruitment Cost (RC) has positive co-efficient (0.0000001560) and this simply means that 1% increase in Recruitment Cost (RC) increases the variable Return on Investment by (0.0000001560) and the value of the t-statistic (2.690) which is greater than 2 by the rube thumb, revealing the significant effect of Recruitment Cost (RC) on Return on Investment (ROI). This was further confirmed that the effect of Recruitment Cost (RC) on Investment (ROI) was significant as the probability value of the co-efficient of Recruitment Cost (RC) was less than 5 percent level of significance (0.008 < 0.05). The Durbin-Watson statistic (DW) value was (1.643) which is less 2 and this shows equal evidence of the present of positive serial correlation in the error of the estimated residual term of the model. The F-statistic value was (7.235), while probability (F-statistic) was 0.008 and this shows that the F-statistic of the overall model is significant.

Ho2: There is no significant relationship between training and development costs and Return on Investment (ROI) of Money Deposit Banks in Nigeria.

The results for the test of hypothesis using simple regression model were presented in the equation below

$$ROI = 0.419 + 2.705e-08 * TDC \text{ ----- (2)}$$

[24.290]	[1.133]
(0.0000)	(0.259)

$R^2 = 0.009$ $\bar{R}^2 = 0.002$, $WD = 1.615$, $F\text{-statistic} = 1.283$, $Prob(F\text{-statistic}) = 0.259$

Akaike info criterion = -0.614

The model in Equation 2 above shows positive intercept and gradient of the co-efficient of Training and Development Cost (TDC), this simply means there is positive interaction between the dependent and independent variable is in a positive direction. Also, the r-square value (0.009) simply indicates 9% variation in dependent variable (Return on Investment) that is explained by the independent variable (Training and Development Cost (TDC)) and this account for the linear relationship that exist between the two variables. In another development, the above model shows that the Training and Development Cost (TDC) has positive co-efficient (0.000002705) and this simply means that 1% increase in Training and Development Cost (TDC) increases the variable Return on Investment by (0.000002705) and the value of the t-statistic (1.133) which is less than 2 by the rube thumb, revealing an insignificant effect of Training and Development Cost (TDC) on Return on Investment (ROI). This was further confirmed that the effect of Training and Development Cost (TDC) on Investment (ROI) was insignificant as the probability value of the co-efficient of Training and Development Cost (TDC) was greater than 5 percent level of significance (0.259 > 0.05). The Durbin-Watson statistic (DW) value was (1.615) which is less 2 and this shows equal evidence of the present of positive serial correlation in the error of the estimated residual term of the model. The F-statistic value was (1.283), while probability (F-statistic) was 0.259 and this shows that the F-statistic of the overall model is insignificant.

Ho3: There is no significant relationship between salaries and wages and return on investment (ROI) of Money Deposit Banks in Nigeria

The results for the test of hypothesis using simple regression model was presented in the equation below

$$ROI = 0.426 + \frac{3.229e-10*SW}{[27.618] \quad [0.568]} \quad (3)$$

(0.0000) (0.5703)

$$R^2 = 0.002 \quad \bar{R}^2 = -0.005, WD = 1.606, F\text{-statistic} = 0.324, \text{Prob}(F\text{-statistic}) = 0.570$$

Akaike info criterion = -0.607

The model in Equation 3 above shows positive intercept and gradient of the co-efficient of Salary Wage (SW), this simply means there is negative interaction between the dependent (Return On investment (ROI)) and independent variable (Salary and Wage (SW)) is in a negative direction. Also, the r-square value (0.002) simply indicates 2% variation in dependent variable (Return On investment (ROI)) that is explained by the independent variable (Salary and Wage (SW)) and this account for the linear relationship that exist between the two variables.

In another development, the above model shows that the Salary and Wage (SW) has negative co-efficient

(-0.00000003229) and this simply means that 1% increase in Salary and Wage (SW) increases the variable Return On investment (ROI) by ((-0.00000003229) and the value of the t-statistic (0.568) which is less than 2 by the rube thumb, revealing an insignificant effect of Salary and Wage (SW) on Return On investment (ROI). The statistical results confirmed that the effect of Salary and Wage (SW) on Return On investment (ROI) was insignificant as the probability value of the co-efficient of Salary and Wage (SW) was greater than 5 percent level of significance (0.5703 > 0.05).

The Durbin-Watson statistic (DW) value was (1.606) which is less 2 and this shows equal evidence of the present of positive serial correlation in the error of the estimated residual term of the model. The F-statistic value was (1.420), while probability (F-statistic) was 0.324 and this shows that the F-statistic of the overall model is insignificant.

Discussion of Findings

Discussion of Bivariate Results

Positive and significant relationship between Recruitment Costs and Return on Investment (ROI) of Money Deposit Banks in Nigeria

It was revealed from the results of the analysis that there is Positive and significant relationship between Recruitment Costs and Return on Investment (ROI) of Deposit money Banks in Nigeria. This means that the expenses incurred in carrying out recruitment of staff otherwise referred to as recruitment Costs is not wasted rather helps in boasting Return on Investment (ROI) of Deposit money Banks in Nigeria. The result obtained here contradicts Ofurum & Adeola (2018) findings, Ofurum & Adeola whom examined the correlation between human resource accounting and profitability of quoted firms in Nigeria. Revealed that there is no significant correlation between human resource accounting and the profitability of the aforementioned company. Although, Ofurum & Adeola (2018) study was carried out in some quoted firms in Nigeria but this present study was on Deposit money Banks in Nigeria. This present result confirmed Ikpefan, *et al.*, (2015) findings. Ikpefan, *et al.*, (2015) examined

human capital accounting and results for Micro finance banks in Nigeria. The study made use, in particular, the analysis of the content from annual financial statements of the examined micro finance banks and found that human resources accounting has a significant impact on Micro finance bank performance. Human capital accounting in this context of Ikpefan, *et al.*, (2015) study could be likening to expenses made in the recruitment of staff, skills of staff, and knowledge potentially used to produce goods or provide useful services.

ii. Positive and insignificant relationship between training and development costs and Return on Investment (ROI) of Money Deposit Banks in Nigeria.

It was revealed from the results of the analysis that there is positive and insignificant relationship between training and development costs and Return on Investment (ROI) of Money Deposit Banks in Nigeria. This simply means that the cost of training new starters to enable them to do their work in a new profession or role within a company (or establishment) has positive and insignificant relationship with return on investment of Deposit money Banks in Nigeria. The result obtained contradicts Imeokparia (2009) findings in his comparative study of human resource and intellectual capital reporting. In Imeokparia (2009) it was found that Nigeria companies are active in human resource and intellectual capital reporting.

iii. Positive and insignificant relationship between Staff Salaries and Wages and Return on Investment (ROI) of Deposit money Banks in Nigeria.

It was revealed from the results of the analysis that there is positive and insignificant relationship between Salaries and Wages and Return on Investment (ROI) of Deposit money Banks in Nigeria. This simply means that Salaries and Wages have a positive and insignificant relationship with Return on Investment (ROI) of Deposit money Banks in Nigeria. This study contradicts Edom, *et al.*, (2015) findings in their investigation about the impact of settling human resources on the viability of Access Bank in Nigeria, in the years 2003-2012. In Edom, et al (2015) study, it was found that there is a significant relationship between the costs of education, development costs and profits of the bank.

Conclusions

This study concluded as follows:

Positive and significant relationship between Recruitment Costs and Return on Investment (ROI) of Money Deposit Banks in Nigeria

Positive and insignificant relationship between training and development costs and Return on Investment (ROI) of Money Deposit Banks in Nigeria.

Positive and insignificant relationship between Staff Salaries and Wages and Return on Investment (ROI) of Deposit money Banks in Nigeria.

Recommendations

Sequel to the above findings, it was therefore recommended that;

- i. Money deposit banks in Nigeria should consider the capitalization of human capital cost- (Recruitment Cost, Training and Development Cost & Salaries and Wages Cost) as strategic

investment options necessary for the operational improvement of return on investment. This is to accommodate the positive and significant relationship between the variables.

- ii. Financial institutions and Accounting professional bodies should review the present accounting information that reflects training and development costs such as recruitment, salary and wages, internal and external staff training so as to enhance published financial statements and to enable investors access quick and easy valuation of return on investment over a particular period.
- iii. The research further recommends to money deposit banks in Nigeria not to associate the low or high return on investment to the expenditures on salaries and wages, hence there is insignificant relationship between the duo.

Contribution to knowledge

This study established the relationship between human capital accounting and ROI which represents financial performance of deposit money banks in Nigeria by employing proxies like recruitment cost, training and development cost, wages/salaries cost, return on investment and which to the best of our knowledge has not been used to evaluate the relationship between Human Capital Accounting and Financial Performance of Deposit Money Banks.

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