Abstract: The extant management literature considers the creative and innovative ingenuity of the human resource (HR) as a critical success factor for achieving corporate goals, yet the contribution of investment in HR and their disclosure towards enhancing corporate financial performance (CFP) is still controversial among researchers and industry practitioners. More so, in a fiduciary contract such as in banking industry which requires impeccable fulcrum of trust to retain the confidence of often fragile investors and customers. Therefore, the objective of the study was to empirically evaluate the impact of human resource investment disclosure (HRID) on the corporate financial performance (CFP) of deposit money banks (DMBs) in Nigeria. Human resource cost (HRC) and human capital efficiency (HCE) were the determinants for HRID, profitability expressed as return on equity (ROE) and capital market performance denominated into market value performance (MVP) of firms were proxies for CFP. While four hypotheses were formulated for the test, the absolute HRC indices were further transformed into natural log of numbers. The researchers deployed causal comparative and descriptive research designs whereas multivariate econometric regression model was adopted for estimating the test results. HRC in the test of HO1 demonstrated a positive and statistically significant contribution to ROE in the multivariate analysis at a beta coefficient of 68.9050%. Supported by a significant F-probability and F-statistic, HO1 was rejected. In tandem with a significant F-probability and F-statistic, HCE revealed a positive beta coefficient contribution to the joint impact on ROE and HO3 was also rejected. Similar to the insignificant F-probability and F-statistic in HO2 and HO4, HRC and HCE respectively demonstrated negative and insignificant positive beta coefficients in nexus with MVP. Hence, HO2 and HO4 were not rejected. Moreover, the Adjusted R-squared of the four tests of hypotheses were positive at varying levels of significance. The researchers therefore concluded a positive nexus between HRID and corporate financial performance. Such conclusion implies that engaging in human resource practices is capable of enhancing the long-range corporate financial performance of deposit money banks in Nigeria.


1. INTRODUCTION

The success of every organization, profit-making or otherwise is largely dependent on the quality of its human resource or workforce, popularly known in labour economics as human factor or human capital. Other business assets such as land, equipment, and money greatly hinge on the aptitude of human resource for efficiency and optimisation. Despite not being recognized as one of the assets in the statement of financial position, the extant management literature holds that the creative and innovative ingenuity of human component is the catalyst that leads all organizations towards their corporate goals, such as competitiveness, profitability, and unforeseeable future existence.
An organization with vast physical resources and sophisticated technology may apparently fall prey to severe poor financial performance and survival crises, in the absence of the right kind of people to drive its goals and manage its core values (Bukh, 2015). For instance, the collapse of some globally reputable companies such as Worldcom, Parmalat, and Enron, in addition to some local governance scandals within defunct Oceanic and Savannah banks in Nigeria are few examples of corporate failures that could arise from poor human factor management. Since the human resource appears significant for creating corporate value, then reasonable investment, valuation, and fair accounting disclosure of such resource in the annual financial report also seem crucial.

Myriad of global and national financial reporting standards alongside corporate governance frameworks such as Cadbury report of 1992, Sarbanes-Oxley Act of 2002, and several other national codes purported to enhance fair accounting information disclosure for mitigating sudden corporate failures unfortunately seem inadequate and often do not provide for human resource investment disclosure (HRID) (KPMG Advisory Services, 2019). To the best knowledge of the researchers, none of the financial reporting standards or codes of corporate governance around the world contains mandatory provision for human resource investment information, neither in terms of associated cost nor valuation as assets.

The voluntary disclosure of qualitative and quantitative (monetary) components of such information is however gradually attracting increasing attention from researchers and business entities (Oladele, Aribaba, Ahmodu, & Omobola, 2018). Most of the observed quantitative disclosures were often separately written off as revenue expenditure under administrative cost or jumbled into research and development (R and D) expense, and presented as explanatory note to the accounts without being capitalised as may seem practically appropriate. Nonetheless the obvious significance of human resource as a critical success factor in business management, the effect of investing in HR and their disclosure on corporate financial performance (CFP) is still controversial among researchers and industry practitioners. Hence, the need to empirically investigate such dynamics among deposit money banks (DMBs) in Nigeria.

Effiong (2010) described human resource (HR) as the sum of human skills, knowledge, attributes, motivations, stamina, creative instincts, and fortitude deployed by a company in wealth creation. It also underscores the knowledge acquired through lifetime and deployed for managing corporate activities, producing goods and services, or for promoting ideas in the market and non-market environments (Barker, 2003). Therefore, human resource entails people oriented capabilities, especially those knowledge and skills required for the attainment of organizational goals. In fairness to all users of accounting information, it appears pertinent for business entities to disclose the economic value of HR and/or all costs incurred as sacrifice to acquire the stock of such skills and competence purported to improve profitability.

American Accounting Association’s Committee on Human Resource Accounting defines human resource investment disclosures (HRID) as “the process of identifying and measuring data about human resource and communicating this information to interested parties” (American Accounting Association, 1973; Amahalu, Obi, Abiahu, & Okika, 2016). In a related approach, Effiong (2010) further defined HRID as an accounting practice of disclosing quantitative value of employees in financial statistics and/or cost expended for sustaining and improving the ability and effort of the workforce towards enhancing economic benefit for their organisation. A further analysis of the foregoing definitions of HRID underpins the value relevance of sacrifices by firms in sustaining desired quality and size of workforce, measured in monetary statistics, and disclosed in the annual financial report.

Any value attributable to an employee must have been acquired by investing some funds either by the employee or employer before or after recruitment, but which must continuously attract further expenses to be productively sustained, enhanced, and retained in an organization within a certain range of time. Some human resource investments include but not limited to recruitment and selection expenses, induction expenses, settlement allowance, training and development expenses, medical allowance, retirement benefit expenses, and expenses associated with labour turnover- such as replacement and high labour turnover prevention costs.

Labour turnover prevention cost entails all expenses that are targeted at inducing, monitoring, and optimally retaining desired quality and size of human resource in a workspace. According to Robbins (2001), the distinction of successful organizations from their contemporaries in almost all the sectors is the quality of workforce they are able to attract, recruit, and retain. 14 years later, Barth (2015) asserted that estimating and disclosing investment in human resource as revenue expenditure reliably reflects their value and may significantly demonstrate a relationship with CFP. So, disclosing the economic valuation of the workforce and/or value adding programmes for the employees in monetary statistics or notes to the accounts is speculated by the current researchers to influence corporate financial performance of deposit money banks, though subject to empirical investigation in this study.

Corporate financial performance (CFP) is a general measure of the overall financial health of a
business organization over a specific range of time. It can be internally computed as accounting indices or externally obtained as capital market performance indicators. While investing in human resource is capable of improving the accounting-based performance, disclosing same in the annual financial report could also expand the information base of existing and potential capital market investors for better investment decisions. Similarly, the influence of a company in the capital market also holds the capacity to impact their accounting-based performance indicators through profitability benchmarked on easy capital mobilization, better product and service delivery, enhanced reputation and greater patronage in the marketplace.

In contrast however, poor or non-disclosure of human resource information in the annual financial report of a firm creates information asymmetry between the management and the stakeholders, which may impair good capital market outlook and attractiveness. This is crucial in a fiduciary contract such as in banking industry which requires impeccable fulcrum of trust to retain the confidence of often fragile investors and customers. More so, as the banking sector is pivotal towards setting the economy in motion for other business activities to thrive. Besides, intellectual and innovation-based operations of the banking industry are dependent on the quality of HR and are homogeneously required across all banks for managing performance. The sector therefore appears most suitable for research on the financial implication of human resource investment. Moreover, Organization for Economic Cooperation and Development (OECD) (1996) earlier asserted that composite activities of human capital acquisition, measurement, accounting, and valuation are core in promoting effective competitive advantage, especially in the rapidly changing business dynamics and intense market competition benchmarked on the globalized economy.

Nonetheless the speculation by the current researchers founded on popular apriori position of positive nexus between human resource investment disclosure and corporate financial performance of firms, there is a mixed grid of arguments shrouded in diverse schools of thought about the relationship. While Schwan (1976) and Olayiwola (2016) were convergent in their opinion that appropriately capitalizing human resource expenses in the annual financial report as asset is value relevant capable of resulting into significant differentiated rating of management’s vigilance to meet future challenges and opportunities, in addition to influencing the investors’ decision-making process; Theeke and Mitchell (2008) in their divergent view of human resource as liability however concluded that such liability is also crucial for ascertaining the market value of a firm. Like some authors moreover, Effiong (2010) opined that human resource expenses can be capitalized in a firm; whereas Omodero and Ihendinhu (2017) argued that the value and resourcefulness of human beings cannot be restricted for use in a single organization like other assets, besides the difficulties associated with estimating their depreciation for an uncertain life span. Extant accounting literature and Popular accounting practices in Nigeria however expense human resource costs as recurrent event since there is no specific requirement in the international financial reporting standards (IFRS) or by the financial reporting council of Nigeria (FRCN) to capitalize them.

Therefore, the central objective of this study is to determine the influence of human resource investment disclosure (HRID) on the corporate financial performance of deposit money banks in Nigeria. Human resource cost (HRC) and human capital efficiency (HCE) are adopted as proxies for human resource investment disclosure, whereas accounting based profitability expressed as return on equity (ROE) and capital market performance denominated into market value performance (MVP) of firms rank as proxies for corporate financial performance. While HCE is estimated through value added intellectual coefficient (VAIC) model Pulic, 1998; Pulic, 2000), HRC includes personnel financial compensation expenditure (PFCE) and staff training and development expenditure (STDE) among others. However, there are possible variables other than the primary predictor proxies that may also influence the behavioural pattern of ROE and MVP. While the examples of such variables for ROE are total assets (TA) and leverage ratio (LR), the examples for MVP are market capitalization (MCAP) and earnings per share (EPS).

The remaining sections of this paper proceeds as follows. Section two is empirical literature, theoretical background, and research hypotheses. Section three presents the operational method. Section four sets out the empirical analysis and interpretation of results, which are discussed in Section five. The conclusion, implication, and recommendations of the study are contained in Section six.

2. EMPIRICAL LITERATURE, THEORETICAL BACKGROUND, AND RESEARCH HYPOTHESES

2.1 Empirical Literature

International Accounting Standards Board (IASB) defines asset in their framework as a resource controlled by an entity, resulting from past events and from which future economic benefits are expected in favour of the entity (Mirza, Orrell, & Holt, 2008). This definition seems to nearly qualify human resource at the disposal of business entities as a component of assets immediately after the past event of recruitment; but Inua and Oziegbe (2018) argued that such resource must be immobile, fully, and exclusively deployed for
use only in one organisation. In a seeming confirmation of the assertion by Inua and Oziegb (2018), International Accounting Standards (IAS) 38 provides that intangible resource is only recognisable as an asset, if it is identifiable, controllable, and expected to contribute future economic benefit to the organisation. Thus, the issue of controllability in relation to human resource is still a grey area that requires clearer definition by accounting standards; hence, introducing controversy into the idea of rationalizing their disclosure in the statement of financial position as part of the assets for generating or aiding the generation of revenue and profit for firms.

Nonetheless, since one of the reasons for adopting IFRS is to improve accounting disclosures and narrowing information deficit on the part of users of annual financial reports, Wagner (2007) observed that human capital is one of the intangible assets that attract investors’ attention while considering investment options. Unlike tangible assets interestingly, employees’ skills may appreciate over time and by increased usage; thus, may stock future benefit for business entities. That could be the reason for the gradually increasing disclosure of human resource information observed in some recent annual financial reports, though, often as recurrent expenditure and disclosed within notes to the accounts.

Highlighting further on the importance of accounting disclosure however, the International Federation of Accountants (IFAC) recommended voluntary human factor among other disclosures contained in their policy guidelines number 8 (IFAC, 2017). In a steering committee report on “Improving Business Reporting: Insights into Enhancing Voluntary Disclosure” issued by Business Reporting Research Project (BRRP) and sponsored by Financial Accounting Standards Board, voluntary disclosure refers to information beyond the mandatory requirement for financial statements by generally accepted accounting principles (GAAP) (FASB, 2001). Considering the position of these leading accounting regulatory organisations, the demand for more disclosures and transparent reporting appears a global concern.

Despite an earlier assertion by Drucker (1993) adopted in Grant (1996) that human resource as well as other components of intellectual capital (IC) are widely acknowledged as the most important source of value creation and competitive advantage, recent research papers and corporate emphases are more on other contemporary issues such as environmental and social accounting disclosures as well as matters of corporate governance. For instance, Oti, Effiong, and Tapang (2012) Examined the implication of environmental costs on return on investment of manufacturing firms in Nigeria; Effiong, Akpan, and Oti (2012) studied the correlation between social responsibility accounting and shareholders wealth demonstrated through good corporate governance; Mbu-Ogar, Effiong, and Abang (2017) investigated corporate governance and organizational performance of manufacturing firms in Nigeria; Okafor, Oji, and Daferighe (2020) examined the influence of environmental and social accounting practices on financial performance of cement companies in Nigeria; while Eyo, Okafor, and Daferighe (2021) probed into the nexus between social and environmental responsibility accounting practices (SERAP) and financial performance of quoted oil and gas firms in Nigeria.

Nevertheless the observed dearth of studies on human resource investment disclosure, the construct is gradually attracting global attention from researchers and industry practitioners. Coincidentally, the banking sector seems to rank as one of the crucial industries in this new paradigm shift. Perhaps, due to its large extent of reliance on cognitive knowledge and innovative skills of the human resource, besides intense competition within the sector. Kick-starting this empirical review from a more generalised dimension of the subject matter, Effiong (2010) evaluated and analysed the need and technique for measuring, recording, and disclosing investment in human capital as well as highlighting their effect on the value of firms. Adopting exploratory research design and conceptual review, the researcher developed a robust system of data categorization and method of human capital acquisition, recording, and scheduling for easy application in the accounting system of firms.

Return on human capital ratio was also developed in this study for comparability between specific firm’s yearly performance and industrial standard and average. Therefore, it was recommended that companies should develop and maintain human capital accounting records as means of evaluating the extent of human capital influence on firms’ profitability and survival. Although, this study provides a fundamental and rudimentary insight into a possible reporting methodology for human factor resource of a firm, the empirical applicability and implication of such practice remain unclear.

By studying the effect of human resource investment on financial performance of quoted deposit money banks in Nigeria, Amahalu, Obi, Abiahu, and Okika (2016) specifically aimed to estimate the effect of human resource cost on return on asset, return on equity, and market-to-book value of relevant banks from 2010-2015. Adopting ex-post facto research design, secondary data were obtained from factbooks of the Nigerian stock exchange. While STATA 13 statistical application was used for inferential statistics, Coefficient of correlation and Ordinary Least Square (OLS) regression analyses were used for estimating the test result. The researchers found that human resource accounting has positive and statistically significant effect on Financial Performance at 5% level of
significance. It was therefore recommended among other things that Human Resource should be capitalized in the statement of financial position to facilitate better investment decision.

Inua and Oziegbde (2018) further examined the effect of human resource investment on the performance of quoted banks in Nigeria. The annual reports of 18 quoted commercial banks from 2009-2017 reporting years were analysed through ex-post facto research design. Adopting regression analysis for testing the effect of some human resource accounting determinants, such as staff cost, remuneration of directors, size of workforce, and size of firm. The results indicated significant positive effect by staff cost, staff strength, and size of firm on financial performance of quoted banks in Nigeria. However, directors’ remuneration had no significant relationship on financial performance. The researchers therefore recommended adopting a more reliable means of communicating benefits to employees, in addition to discouraging unfair performance appraisal as it impairs employees’ motivation.

In another assessment of the effect of human capital on the market value of banks in Nigeria, Chukwu, Ugo, and Osisioma (2019) adopted remuneration and staff strength as proxies for human capital investment within the scope of 2010 to 2014. Data were obtained from annual financial reports and accounts of fourteen listed banks on the Nigerian Stock Exchange. The estimated results from their regression analyses indicated that only one variable (the proportion of highly paid employees of the staff) had a significant effect on the market value of firms. Such outcome suggests that the strength of valuable stock of human capital in the payroll of banks is capable of boosting investors’ confidence.

Ekwe (2012) investigated the nexus between intellectual capital and financial performance in the banking sector of Nigeria for 2005-2007. Adopting ex-post facto research design for obtaining data and multiple regression model for estimating the test result, the researcher found significant positive disaggregated association between Value Added Intellectual Coefficient (VAIC) indices and Return on Assets, human resource productivity, and market to book value ratio of the banks.

As in Nigerian banks, related research findings among banks in other countries also demonstrated a mixed grid of positive and negative results. Like Nigeria, researches conducted in other countries similarly reported more positive nexus between human capital component of intellectual capital (IC) and corporate financial performance than negative associations. For instance, Duho, and Onumah, (2018) conducted a study to investigate the determinants of intellectual capital performance (ICP) among Ghanaian banks. The researchers utilized Value Added Intellectual Coefficient (VAICT™) model measuring ICP, data envelopment analysis technique for computing the technical efficiency (TE), and cost efficiency (CE) scores as some predictor variables indices, while ratio analyses were used for ascertaining the remaining variables.

Adopting unbalanced panel data of 29 banks covering the period of 2000-2014 and the panel corrected standard error (PCSE) regression model to account for heteroscedasticity, they also benchmarked the determinants of ICP on research and development (R&D) investment, the efficiency of investment in human capital (HClInv), leverage, operational risk, insolvency risk (IR), diversification, and return on asset (ROA). However, findings revealed that R&D, IR, and ROA demonstrated significant positive impact on ICP. In contrast, HClInv and leverage indicated significant negative effect on ICP. Additionally, diversification significantly enhanced ICP, but market and industry entry barriers lowered it. Size and TE negatively influenced ICP while CE insignificantly but positively determined its level. It was therefore recommended that banks should make diversification a priority as means of increasing their value. The researchers further suggested more R&D to the banks to serve as the core of their operations for easy diversification.

Probing further into the influence of intellectual capital on financial performance of banks in Bahrain for 2005 to 2007, Ku and Mahfoudh (2011) applied Public’s value added intellectual coefficient (VAIC) for measuring efficiency. Two regression models were developed for testing the multiplicative overall influence of VAIC and the isolated specific influences of capital employed efficiency (CEE), human capital efficiency (HCE), and structural capital efficiency (SCE) on financial performance of the banks. Obtaining relevant data from the audited annual financial reports of the banks, the result of their general regression confirmed that intellectual capital positively influenced financial performance of banks in Bahrain. However, their disaggregated results revealed that financial performance is also positively associated with CEE and HCE, but not with SCE. The researchers hence generalized a positive nexus between intellectual capital and financial performance of banks in Bahrain. The banks were however recommended to properly allocate investments among productive resources in accordance with their contributions to financial performance.

Reporting on the impact of intellectual capital (IC) on financial performance of Islamic banks operating in the United Kingdom (UK) for 2013 to 2017, Tasawar (2019) adopted return on average assets (ROAA) and return on average equity (ROAE) as proxies for financial performance. Number of employees and size of bank were used as control
variables. The result of multivariate regression analysis indicated a positive nexus between IC efficiency measured by value added intellectual coefficient (VAIC) and financial performance of Islamic banks in the UK. In a further analyses of specific components of IC, physical and financial capital employed efficiency and human capital efficiency demonstrated positive association with financial performance. Size of bank and number of employees also impacted positively on the financial performance of the Islamic banks.

Mention and Bontis (2013) investigated the effects of intellectual capital and its components on the business performance of the banking sector in Luxembourg and Belgium. Adopting a dedicated survey instrument administered to over 200 banks, structural equation model was utilized for data analysis. Findings indicated that human capital contributes directly and indirectly to the performance of banking sector. However, the result revealed insignificant positive nexus between structural and relational capital with business performance. Relational capital is further found to negatively moderate the effect of structural capital on performance. The research provided actionable knowledge for implementing intellectual capital strategy in banks.

Law, Adem, and Siti (2018) examined the financial performances of local banks in Malaysia for 2011 to 2016 and 2007 to 2016. The researchers utilized value added intellectual coefficient (VAIC) model in the evaluation of financial performances of 10 local banks in Malaysia. VAIC was further denominated into human capital efficiency (HCE), structural capital efficiency (SCE), and capital employed efficiency (CEE). Adopting causal comparative research design and secondary data, the regression analysis indicated that CEE is significantly associated with Return on Assets (ROA) for the 6 years and 10 years. While HCE is significantly related with ROA for only the 6 years, SCE revealed a significant nexus with ROA for only the 10 years. In another related outcome, SCE showed a significant relationship with Leverage (LEV) for only the 6 years compared to a significant association between HCE and LEV for the 10 years. Banks were therefore recommended to focus on all the components of IC since all their efficiencies are capable of enhancing financial performances in the sector.

Besides its stride in the banking industry, intellectual capital (IC) through its various components is also considered a driving force for competitive advantage and business sustainability among manufacturing and other non-banking companies. Thus, creating the atmosphere for better corporate financial performance and wealth creation. Investigating the impact of IC on financial performance and sustainable growth among 390 manufacturing companies listed on the Korean Stock Exchange for 2012 to 2016, Jian and Bingham (2018) obtained relevant data from DataGuide database. Utilising multiple regression model, Test of hypotheses indicated that IC is positively associated with financial performance and sustainable growth. A further analysis revealed that performance and sustainable growth are positively related to physical capital, human capital (HC), and relational capital (RC). However, RC demonstrated the most impactful factor, whereas innovative capital x-rayed additional information on structural capital (SC) which negatively influenced the performance of manufacturing companies in Korea. Results of the analyses are suggestive of the capacity of IC in creating corporate value for sustainable advantages in emerging economies.

Obulor and Ohaka (2020) recently examined the effect of human resource cost on financial performance of quoted manufacturing firms in Nigeria. Panel data for 2008 to 2017 were obtained through causal comparative research design with training cost, return on equity, and earnings per share as specific empirical variables. The test results were estimated by utilizing correlation coefficient (R), coefficient of determination (R2), t-test, F-test, and Granger Causality. However, the test result showed that human resource cost had significant positive influence on financial performance of quoted manufacturing firms in Nigeria. Hence, the researchers recommended Nigerian manufacturing companies to appreciate human capital investment as one of the preconditions for improving corporate performance.

Investigating further into firms’ financial performance and human resource investment disclosure in Nigeria, Micah, Ofuru, and Ihendinhu (2012) utilised descriptive, correlation and regression statistical models for data analyses and for estimating test results. Their findings revealed that the multiplicative effect of firms’ Financial Performance contributed 75.9% of the variation in Human Resource investment Disclosure (HRID) with an F- ratio of 3.581 at 5% level of significance. The observed positive association between Return on Equity (ROE) and Human Resource investment Disclosure (HRID) implied that increase in return on equity encouraged firms to report their human capital information. Thus, strengthening the confidence of stakeholders, enhancing external reputation, and appearing more legitimate before members of the public. It was further concluded that human resource investment information of an organization is very relevant for decision management.

An empirical study by Oladele, Aribaba, Ahmodu, and Omobola (2018) examined the influence of human factor accounting disclosure on financial performance of listed companies in Nigeria for the periods, 2011-2015. All data were obtained from the audited annual financial reports. Data for human factor investment disclosure were specifically determined through profitability, size, financial leverage, and
industry type of the relevant firms. Descriptive statistics, correlation and regression were adopted for data analyses. The result indicated a positive coefficient value of 0.565 between the independent and dependent variables. Hence, the researchers recommended that the listed firms should always capitalise and disclose all the expenditure incurred on human resource as a means of improving their corporate productivity. They also suggested that regulatory agencies should set minimum standard to govern human resource disclosure in the annual financial reports of listed firms. The researchers further argued that such is capable of enhancing stakeholders’ valuation of the firms.

Adopting secondary data obtained from the Annual Reports and Fact Books of the Nigerian Stock Exchanged for the period, 2007 to 2014, Olayiwola (2016) investigated the relevance of human capital investment information on the market value of 50 quoted manufacturing companies in Nigeria. Pooled ordinary least square (OLS) and Fixed Effect Model (FEM) were used for data analyses. The test result indicated positive substantial relevance of human capital cost ($\beta=0.02, t=2.42, p<0.05$) with share price. The outcome suggests that capitalizing investment on human resource is capable of increasing the shareholders’ wealth, besides improving the capital market reputation of quoted manufacturing companies in Nigeria.

A research by Omodero and Ihendimu (2017) examined the link between human resource investment and financial performance of firms in Nigeria. Their central objective was to determine the extent of influence from human resource expenditure on firms’ profit after tax (PAT), total revenue (TR), and net asset (NA) for 2011 to 2015 reporting years. Adopting multiple regression analysis through the use of SPSS, the hypotheses were tested at 5% level of significance. The test result indicated that personnel benefit cost (PBC) positively and significantly influence PAT, but negatively impact on the Net Asset. The researchers therefore suggested that Firms should imbibe the culture of training, developing, and motivating the workforce to deploy their best expertise for the financial growth of their organizations. This, they believed was capable of lowering the rate of labour turnover.

A greater fraction of the reviewed research papers adopted either the accounting or capital market measure of corporate financial performance (CFP), while comparative analysis of both versions of CFP within one study was insignificant in the review. Therefore, the current research is an attempt to investigate the comparative financial implications of human resource investment disclosures (HRID) on accounting and capital market CFP respectively denominated into return on equity (ROE) and market value performance (MVP) of firms. The aim is to broaden the robustness of the test for a more reliable and comparable result.

### 2.2 Theoretical Background

The construct of human resource or human capital accounting disclosure is broadly consistent with a wide spectrum of theories such as resource-based view of a firm, knowledge-based theory of a firm, and human capital theory. However, the explanatory power of resource-based view of a firm seems appropriately germane in the current discourse for clearer conceptualisation. As a conceptual derivative from organizational economics and strategic management, the resource-based view of firm argues that differences in profitability across firms are explainable by differences in their portfolio of resources and how these resources are articulated and deployed. Developed by Penrose (1959), Resource based view connotes that a firm is a conglomeration of productive resources with human resource (HR) or human capital (HC) as the most crucial among others. The underlying reasoning in this context is that HR can become a source of sustainable competitive advantage through strategic investment in recruitment, training, retention, and disclosure in the annual financial report.

Incurring human resource cost (HRC) for the purpose of enhancing financial performance through human capital efficiency (HCE) and disclosing same in the financial report appears an economic value addition for improving key performance indicators (kpi), both at firm’s level and in the capital market. Hence, HR cost is no longer expected to be unduly avoided in pursuit of short range profit at the expense of long-range competitiveness and survival. Instead, necessary cost is to be reasonably incurred as investment for nurturing and optimizing value-relevant capacity in the human resource (Abeyesekera, 2006). The resource based view posits that such value relevant capacity in HR must demonstrate four basic traits: value, rarity, imitability, and non-substitutable (VRIN) for a sustainable competitive advantage.

Firms may therefore strategically adopt effective human resource management (HRM) practices as early as from recruitment and selection process. HRM practices are specifically capable of enhancing corporate financial performance by lowering turnover and absenteeism among employees, while improving job satisfaction and personnel retention. Hence, value creation capacity of human resource is dependent on their level of interaction with human resource management practices. Collier (2001) further highlighted that the importance of HR is not only on increasing its stock through additional investment, but also by effectively deploying their acquired value for competitive advantage. Thus, the importance of HR as part of the organizational resources is embedded in their value relevant knowledge and skills for improving the corporate financial performance of business entities.
More so, in the banking sector characterized by homogeneous technology and general or industry specific information, the stock of knowledge and skills embedded in the workforce appears the only peculiar driving factor for competitive performance.

2.3 Research Hypotheses
To further investigate the popular apriori opinion and the research objective, the researchers formulated the following hypotheses:

\[ H_{O1}: \text{There is no significant effect of human resource cost on the return on equity of deposit money banks in Nigeria.} \]

\[ H_{O2}: \text{Human resource cost does not significantly influence the market value of deposit money banks in Nigeria.} \]

\[ H_{O3}: \text{Human capital efficiency does not significantly influence the return on equity of deposit money banks in Nigeria.} \]

\[ H_{O4}: \text{There is no significant effect of human capital efficiency on the market value of deposit money banks in Nigeria.} \]

3. OPERATIONAL METHOD
3.1 Research Design
A combination of causal comparative and descriptive research designs was applied in the research. While causal comparative design is adopted through document review as instrument for obtaining historical accounting and capital market data of deposit money banks (DMBs) in Nigeria, descriptive design was used for examining the prevailing economic implications of such historical events. Both research designs were successfully utilized in prior studies by Vafaei, Taylor and Ahmed (2011) and OBUOR and Ohaka (2020).

Thus, all accounting and capital market data were respectively obtained from relevant annual financial reports and the factbooks of Nigerian Stock Exchange (NSE) for a period of ten (10) years (2010-2019). The data sets for the measurement are objective and verifiable, since they were reliably obtained from audited financial reports and NSE factbooks. However, the data were further tabulated in a one-year-lagged time panel model for clearer relationship between predictor variables (HRC and HCE) and response variables (ROE and MVP). While response variables were estimated at time (t), the predictor variables were determined at time (t) minus one (t-1). This implies that each current year’s corporate financial behavior of ROE and MVP are predicated on the prior one year’s influence from HRC and HCE. Moreover, regression analyses were estimated using the Eview statistical analytical package at 5% level of significance.

The sample of the study comprises of seven (7) quoted deposit money banks in Nigeria. The sampled banks were purposively selected from a population of thirteen (13) quoted DMBs in the country. The main selection criterion is their consistency in reporting human resource information necessary for completing the study. Considering the lagged time series and sample size of seven (7) however, the initial scope of ten (10) years (2010-2019) yielded only nine (9) periods of time series and sixty-three (63) observations.

List of the Sampled Deposit Money Banks (DMBs)

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<thead>
<tr>
<th>S/N</th>
<th>DMBs</th>
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<tr>
<td>1</td>
<td>ACCESS Bank Plc</td>
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<td>2</td>
<td>FCMB PLC</td>
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<tr>
<td>3</td>
<td>GTB PLC</td>
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<td>4</td>
<td>STERLING BANK PLC</td>
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<td>5</td>
<td>UBA PLC</td>
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<tr>
<td>6</td>
<td>UNION BANK PLC</td>
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<tr>
<td>7</td>
<td>ZENITH BANK PLC</td>
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</table>

Source: Researchers’ Compilation, 2023

3.2 Theoretical Specification of Model

\[ ROE \rightarrow \text{Accounting Financial Performance} \leftarrow \text{Competitive Advantage} \rightarrow \text{Capital Market Financial Performance} \rightarrow \text{MVP} \]

Figure 1: Human Resource Investment Disclosure (HRID) Impact Model

Source: Researchers’ Design, 2023

Human resource cost (HRC) and human capital efficiency (HCE) are the predictor variables and proxies for human resource investment disclosures. The popular apriori believe across all disciplines within the management sciences is that HRID is fundamental for efficient and profitable management of all organizational resources by availing several competitive advantages. For instance, prudently allocating HRC for developing and compensating relevant capacity and resourcefulness among the workforce is speculated to boost productivity and raise the competitive advantage and financial performance of a company within an industry.

Similarly, the economic value added (EVA) of business organisations resulting from the activities of
the workforce (Human Capital Efficiency) is also believed to influence the societal rating of companies, as may be indicated by the performance of their securities and profit bottom line. Hence, HRID seems to largely influence good financial outlook among business entities. In this study, its influence on deposit money banks is measured through corporate financial performance as response variable denominated into return on equity (ROE) and market value performance (MVP) of firms. ROE and MVP may complement each other in facilitating the overall financial performance of business organisations. Put differently, an adequately managed good financial outlook in terms of profitability may over-time translate into an attractive capital market outlook, vice versa.

3.3 Empirical Specification of Model

Four regression equation models are respectively applied for estimating the influence of HRID on accounting and capital market CFP of deposit money banks in Nigeria. The equations are:

\[
\begin{align*}
\text{ROE}_i, t &= \beta_0 + \beta_1 \text{LOG-HRC}_i, t-1 + \beta_2 \text{LOG-TA}_i, t-1 + \beta_3 \text{LR}_i, t-1 + \epsilon_i, t-1 \quad \text{(i)} \\
\text{MVP}_i, t &= \beta_0 + \beta_1 \text{LOG-HRC}_i, t-1 + \beta_2 \text{LOG-MCAP}_i, t-1 + \beta_3 \text{EPS}_i, t-1 + \epsilon_i, t-1 \quad \text{--- (ii)} \\
\text{ROE}_i, t &= \beta_0 + \beta_1 \text{HCE}_i, t-1 + \beta_2 \text{LOG-TA}_i, t-1 + \beta_3 \text{LR}_i, t-1 + \epsilon_i, t-1 \quad \text{--- (iii)} \\
\text{MVP}_i, t &= \beta_0 + \beta_1 \text{HCE}_i, t-1 + \beta_2 \text{LOG-MCAP}_i, t-1 + \beta_3 \text{EPS}_i, t-1 + \epsilon_i, t-1 \quad \text{--- (iv)}
\end{align*}
\]

**Description of Operational Variables**

The variables denoted in the equations are described as:

- **Response Variables**
  - Return on equity (ROE) and market value performance (MVP) of a firm are the response (dependent) variables in this study. Each respectively represents accounting and capital market measures of financial performance in adherence to the suggestion by Pereira and Filipe (2014) to combine accounting and capital market measures of CFP for a more robust analysis and reliable test results. ROE was estimated as profit after tax and preference stock’s dividend expressed as a percentage of equity holders fund while MVP is computed through Tobin’s Q model of firm’s valuation as:

  \[
  \text{MVP} = \text{Market Value of total Equity + Total Book Value of all Liabilities / Total Assets}
  \]

- **Predictor Variables**
  - Proxies for HRID in this context are human resource cost (HRC) and human capital efficiency (HCE). Both are applied in the equations for estimating their influences on ROE and MVP of deposit money banks in Nigeria. Whereas HRC is the aggregate figure of personnel financial compensation expenses (PFC) and staff training and development expenses (STDE) among others, HCE is estimated through VAIC Model. HRC was further transformed into Natural LOG indices (LOG-HRC) and the VAIC model derives HCE as a ratio of aggregate expenditure on human resource to their economic value added in a business entity. The derivative equation is:

  \[
  \text{Human Capital Efficiency (HCE)} = \text{Value Added (VA)} / \text{Human Capital (HC)}
  \]

  Where HC = Personnel Expenses (Salaries and other personnel Benefits)

  VA = Total Revenue – (Operating Expenses-Salaries and other personnel Benefits)

  Therefore, \( \text{HCE} = \text{Total Revenue} - (\text{Operating Expenses-Salaries and other personnel Benefits}) \)

- **Control Variables**
  - Personnel expenses (Salaries and other personnel Benefits)

The basic assumption by the researchers is that corporate financial performance may be influenced by other firm specific and capital market variables outside the predictor variables of focus in this study. Thus, the rationale to unbundle such influences from those of the predictor variables as controls without compromising the robustness of the test model in nexus to response variables. Total assets (TA) and leverage ratio (LR) are control variables on the effect of HRID on ROE. Similarly, market capitalization of a firm (MCAP) and earnings per share (EPS) are the control variables on the effect of HRID on MVP. Whereas TA and MCAP measure the effect of size on ROE and MVP respectively, LR estimates the influence of borrowed capital on ROE. Similarly, EPS examines the influence of return on share capital from business operations on MVP. Moreover, TA and MCAP were also transformed into natural LOG indices to mitigate irregularities in the test estimates and to enhance the robustness of the result.

Other Denotations are:

- \( \beta_0 = \) intercept;
- \( \beta_1, \beta_2, \) and \( \beta_3, = \) coefficients of predictor and control variables;
- \( i = \) specific company (ith company) in the numeric series of companies under review;
- \( t = \) specific period of time (year) in the time series of the analyses;
- \( -1 = \) constant lag of one year for predictor and control variables;
- \( \epsilon = \) stochastic.

4. EMPIRICAL ANALYSES AND INTERPRETATION OF RESULTS

**Test of Hypothesis One**

\( H_0: \) There is no significant effect of human resource cost on the return on equity of deposit money banks in Nigeria.
Panel data one in Table 1 in the Appendix were utilized for testing hypothesis one. Below are the estimates of

<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>-9.440241</td>
<td>6.296757</td>
<td>-1.499223</td>
<td>0.1408</td>
</tr>
<tr>
<td>LOGHRC</td>
<td>0.689050</td>
<td>0.894092</td>
<td>0.770670</td>
<td>0.4449</td>
</tr>
<tr>
<td>LOGTA</td>
<td>2.007546</td>
<td>1.002247</td>
<td>2.003045</td>
<td>0.0512</td>
</tr>
<tr>
<td>LR</td>
<td>0.645251</td>
<td>0.244581</td>
<td>2.638191</td>
<td>0.0114</td>
</tr>
</tbody>
</table>

Effects Specification

Cross-section fixed (dummy variables)

Period fixed (dummy variables)

R-squared | 0.883467 | Mean dependent var | 13.52778
Adjusted R-squared | 0.839444 | S.D. dependent var | 7.921072
S.E. of regression | 3.173933 | Akaike info criterion | 5.382776
Sum squared resid | 453.3233 | Schwarz criterion | 5.995101
Log likelihood | -151.5575 | Hannan-Quinn criter. | 5.623606
F-statistic | 20.06807 | Durbin-Watson stat | 1.565657
Prob(F-statistic) | 0.000000 |

Source: Eview Regression Result, 2023

Regression Equation: ROE = -9.440241 + LOG-HRC0.689050 + LOG-TA2.007546 + LR0.645251
The disaggregated results of the variables for hypothesis one are shown in Table 4. The Table indicates that beta coefficient for constant is -9.440241. It implies -944.0241% variation in ROE, if other parameters are held constant in the equation. A unit change in LOG-HRC when other parameters are held constant contributes beta coefficient of 0.689050 (68.9050%) to ROE. Unit variations in LOG-TA and LR impact ROE by coefficients of 2.007546 (200.7546%) and 0.645251 (64.5251%) respectively, if other parameters are held constant. Except for LR of 0.0114, the P-values of other parameters are greater than 0.05 level of significance. While the calculated T-values of 2.003045 and 2.638191 respectively for LOG-TA and LR are both greater than the critical T of 2.000, values of 2.003045 and 0.645251 (64.5251%) respectively, if other parameters are held constant contributes beta coefficient of 0.689050 (68.9050%) to ROE. A unit variations in LOG-HRC, LOG-MCAP, and LOG-EPS for optimizing the MVP of deposit money banks in Nigeria. Skewness of 0.188407 for LOG-EPS for testing hypothesis two. Below are the results of the test.

The spread of indices for the standard deviation which are close to zero reveals low volatility and risk of deploying LOG-HRC, LOG-MCAP, and EPS for optimizing the MVP of deposit money banks in Nigeria. Skewness of 0.188407 for LOG-HRC, -0.465144 for LOG-MCAP, and -2.109540 for EPS are within -0.5 and 0.5. Thus, the distribution is fairly skewed. The kurtoses of 1.256785 for LOG-HRC and 2.906648 for LOG-MCAP which are less than 3 indicate heavy tails and low peakedness in the distribution. In contrast, the kurtoses of 17.36875 for EPS and 49.07743 for MVP are greater than 3 and imply light tail and high peakedness in the distribution.

### Table 6: Descriptive Statistics for the Interraction of LOG-HRC, LOG-MCAP, and EPS with MVP

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGHRC</td>
<td>5.682920</td>
<td>11.18372</td>
<td>12.00600</td>
<td>4.061528</td>
<td>0.325899</td>
<td>0.070755</td>
<td>1.000000</td>
<td>8.349648</td>
<td>0.015379</td>
<td>358.0239</td>
<td>16.11456</td>
<td>63</td>
</tr>
<tr>
<td>LOGMCAP</td>
<td>5.338789</td>
<td>11.19393</td>
<td>12.00600</td>
<td>9.652670</td>
<td>0.509816</td>
<td>-0.465144</td>
<td>0.129626</td>
<td>2.294648</td>
<td>0.000000</td>
<td>704.5740</td>
<td>11.11456</td>
<td>63</td>
</tr>
<tr>
<td>EPS</td>
<td>1.000000</td>
<td>1.220000</td>
<td>8.740000</td>
<td>-12.51000</td>
<td>-2.109540</td>
<td>-0.465144</td>
<td>1.000000</td>
<td>588.6870</td>
<td>0.000000</td>
<td>95.85000</td>
<td>394.7426</td>
<td>63</td>
</tr>
<tr>
<td>MVP</td>
<td>1.000000</td>
<td>1.220000</td>
<td>8.740000</td>
<td>-12.51000</td>
<td>-2.109540</td>
<td>-0.465144</td>
<td>1.000000</td>
<td>588.6870</td>
<td>0.000000</td>
<td>95.85000</td>
<td>394.7426</td>
<td>63</td>
</tr>
</tbody>
</table>

Source: Eview Regression Result, 2023

### Table 7: Correlation Estimates of LOG-HRC, LOG-MCAP, and EPS with MVP

<table>
<thead>
<tr>
<th>Variable</th>
<th>LOGHRC</th>
<th>LOGMCAP</th>
<th>EPS</th>
<th>MVP</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGHRC</td>
<td>0.000000</td>
<td>0.008960</td>
<td>0.129626</td>
<td>-0.055403</td>
</tr>
<tr>
<td>LOGMCAP</td>
<td>0.008960</td>
<td>0.000000</td>
<td>1.000000</td>
<td>-0.149916</td>
</tr>
<tr>
<td>EPS</td>
<td>0.129626</td>
<td>1.000000</td>
<td>0.325899</td>
<td>-0.070755</td>
</tr>
<tr>
<td>MVP</td>
<td>-0.055403</td>
<td>-0.149916</td>
<td>1.000000</td>
<td>-0.070755</td>
</tr>
</tbody>
</table>

Source: Eview Regression Result, 2023

### Table 8: Regression Estimates of LOG-HRC, LOG-MCAP, EPS with MVP

<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>-1.540570</td>
<td>4.931652</td>
<td>-0.312384</td>
<td>0.7562</td>
</tr>
<tr>
<td>LOGHRC</td>
<td>-0.242627</td>
<td>0.130876</td>
<td>-1.853870</td>
<td>0.0703</td>
</tr>
<tr>
<td>LOGMCAP</td>
<td>0.347025</td>
<td>0.441030</td>
<td>0.786851</td>
<td>0.4355</td>
</tr>
</tbody>
</table>

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Thus, the strategy of enhancing the HCE may result to a higher risk to financial performance. ROE with kurtoses of less than 3. indicate fair distribution of close to zero for LOGTA and LR implies low risk of deploying them as strategies for improving ROE among the deposit money banks in Nigeria. However, the Human Capital Efficiency (HCE) with SD of 13.95683 demonstrates a higher risk to financial performance. Thus, the strategy of enhancing the HCE may result to volatility in nexus with ROE. Except for HCE with a skewness of 4.565286, the other variables with skewness indices within the range of -0.5 and 0.5 indicate fairly normal distribution. The kurtoses of greater than 3 for HCE and LR implies heavy tails and relatively flat peaks and vice versa for LOGTA and ROE with kurtoses of less than 3.

The disaggregated regression results for hypothesis two is contained in Table 8. If other parameters of the regression equation are held constant, the intercept contributes a beta coefficient of -1.540570 (-154.0570%) to MVP. A unit change in LOGHRC results to -0.242627 (-24.2627%) beta coefficient, when other parameters are held constant. If other parameters of the equation are similarly held constant, a unit variation in LOGMCAP or EPS respectively returns 0.347025 (34.7025%) or 0.005710 (0.5710%) impact on MVP. The P-values of the parameters are greater than 0.05 level of significance. Additionally, the calculated T-values of -0.312384 for the intercept, -1.853870 for LOGHRC, 0.786851 for LOGMCAP, and 0.126039 for EPS are all less than the critical T of 2.000.

The parameters jointly yielded an Adjusted R-squared of 0.138969 (13.8969%), as shown in Table 8. If other parameters are held constant, a unit change in LOGTA and LR implies low risk of deploying them as strategies for improving ROE among the deposit money banks in Nigeria. However, the Human Capital Efficiency (HCE) with SD of 13.95683 demonstrates a higher risk to financial performance. Thus, the strategy of enhancing the HCE may result to volatility in nexus with ROE. Except for HCE with a skewness of 4.565286, the other variables with skewness indices within the range of -0.5 and 0.5 indicate fairly normal distribution. The kurtoses of greater than 3 for HCE and LR implies heavy tails and relatively flat peaks and vice versa for LOGTA and ROE with kurtoses of less than 3.

Regression Equation: MVP = -1.540570 - LOGHRC0.242627 + LOGMCAP0.347025 + EPS0.005710

Table 10: Descriptive Statistics for the Interaction of HCE, LOGTA, and LR with ROE

<table>
<thead>
<tr>
<th></th>
<th>HCE</th>
<th>LOGTA</th>
<th>LR</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7.719841</td>
<td>7.666710</td>
<td>5.673651</td>
<td>13.52778</td>
</tr>
<tr>
<td>Median</td>
<td>4.070000</td>
<td>8.118867</td>
<td>5.620000</td>
<td>11.26000</td>
</tr>
<tr>
<td>Maximum</td>
<td>96.85000</td>
<td>9.598584</td>
<td>11.65000</td>
<td>32.69000</td>
</tr>
<tr>
<td>Minimum</td>
<td>-0.920000</td>
<td>5.902792</td>
<td>1.220000</td>
<td>1.850000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>13.95683</td>
<td>1.448743</td>
<td>2.205517</td>
<td>7.921072</td>
</tr>
<tr>
<td>Skewness</td>
<td>4.565286</td>
<td>0.022487</td>
<td>0.467555</td>
<td>0.483280</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>27.93100</td>
<td>1.164295</td>
<td>3.213973</td>
<td>2.343114</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>1850.421</td>
<td>8.851065</td>
<td>2.415562</td>
<td>3.585066</td>
</tr>
<tr>
<td>Probability</td>
<td>0.000000</td>
<td>0.011968</td>
<td>0.298860</td>
<td>0.166538</td>
</tr>
<tr>
<td>Sum</td>
<td>486.3500</td>
<td>483.0027</td>
<td>357.4400</td>
<td>852.2500</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>12077.18</td>
<td>130.1291</td>
<td>2.345622</td>
<td>3890.0900</td>
</tr>
</tbody>
</table>

Source: Eview Regression Result, 2023

The parameters jointly yielded an Adjusted R-squared of 0.138969 (13.8969%), as shown in Table 8. In the same table, F-statistic of 1.588627 is less than the critical F value of 2.72. Thus, the null hypothesis two (HO2) is not rejected. Except for coordinates of the same variables otherwise where the Durbin-Watson index of 2.441549 in Table 8, which is less than 3 implies the absence of autocorrelation in the analysis. Hence, the appropriateness and adequacy of the model as used for the test.

Test of Hypothesis Three

HO3: Human capital efficiency does not significantly influence the return on equity of deposit money banks in Nigeria.

Panel data three in Table 9 of the Appendix were used for testing hypothesis three. Below are the estimates of the test.
Table 11: Correlation Estimates of HCE, LOG-TA, and LR with ROE

<table>
<thead>
<tr>
<th></th>
<th>HCE</th>
<th>LOGTA</th>
<th>LR</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCE</td>
<td>1.00000</td>
<td>0.381334</td>
<td>0.012974</td>
<td>0.180055</td>
</tr>
<tr>
<td>LOGTA</td>
<td>0.381334</td>
<td>1.00000</td>
<td>-0.085151</td>
<td>0.318196</td>
</tr>
<tr>
<td>LR</td>
<td>0.012974</td>
<td>-0.085151</td>
<td>1.000000</td>
<td>0.035376</td>
</tr>
<tr>
<td>ROE</td>
<td>0.180055</td>
<td>0.318196</td>
<td>0.035376</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Source: Eview Regression Result, 2023

Table 12: Regression Estimates of HCE, LOG-TA, LR with ROE

<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>-9.113157</td>
<td>6.308789</td>
<td>-1.444518</td>
<td>0.1555</td>
</tr>
<tr>
<td>HCE</td>
<td>0.014548</td>
<td>0.038098</td>
<td>0.381854</td>
<td>0.7044</td>
</tr>
<tr>
<td>LOGTA</td>
<td>2.508995</td>
<td>0.773253</td>
<td>3.244727</td>
<td>0.0022</td>
</tr>
<tr>
<td>LR</td>
<td>0.580384</td>
<td>0.236317</td>
<td>2.455958</td>
<td>0.0180</td>
</tr>
</tbody>
</table>

Effects Specification

Cross-section fixed (dummy variables)
Period fixed (dummy variables)
R-squared 0.882310
Adjusted R-squared 0.837850
S.E. of regression 3.189646
Akaike info criterion 5.392653
Sum squared resid 457.8230
Schwarz criterion 6.004978
Log likelihood -151.8686
Hannan-Quinn criter. 5.633484
F-statistic 19.84482
Durbin-Watson stat 1.443246
Prob(F-statistic) 0.000000

Regression Equation: ROE = -9.113157 + HCE0.014548 + LOG-TA2.508995 + LR0.580384

The disaggregated results of the variables for hypothesis three are shown in Table 12. The constant contributes a beta coefficient of -9.113157 (-911.3157 %) to ROE, when other parameters of the regression equation are held constant. A unit change in HCE with other parameters held constant reveals a beta coefficient of 0.014548 (1.4548%) variation in ROE. If other parameters of the regression equation are held constant, unit variations in LOG-TA and LR respectively contribute 2.508995 (250.8995%) and 0.580384 (58.0384%) beta coefficients to ROE. The P-values of 0.0022 for LOG-TA and 0.0180 for LR are less than 0.05 level of significance while P-values of 0.1555 for the constant and 0.7044 for HCE are greater than 0.05 level of significance. In consonance with P-values, the calculated T-values of 3.244727 for LOG-TA and 2.455958 for LR are greater than the critical T-value of 2.000 whereas -1.444518 for the constant and 0.381854 for HCE are less than the critical T-value.

Nonetheless the mixed grid of the disaggregated outcome, the Adjusted R-squared is 0.837850 (83.7850%) in Table 12 of the multiple regression. In the same table, the F-probability of 0.000000 is less than 0.05 level of significance. Similarly, the calculated F-statistic of 19.84482 is greater than the critical F value of 2.72. Hence, the null hypothesis three (HO3) is rejected. Except for coordinates of the same variables, the indices of greater than -0.9 and less than 0.9 in Table 11 connotes the absence of multicolinearity while the Durbin-Watson index of 1.443246 in Table 12, which is less than 3 indicates the absence of autocorrelation in the analysis. Thus, the model as used in this analysis is appropriate and adequate for the test.

Test of Hypothesis Four

H04: There is no significant effect of human capital efficiency on the market value of deposit money banks in Nigeria.

Panel data four in Table 13 of the Appendix were used for testing hypothesis four. Below are the results of the test.

Table 14: Descriptive Statistics for the Interaction of HCE, LOG-MCAP, and EPS with MVP

<table>
<thead>
<tr>
<th></th>
<th>HCE</th>
<th>LOG_MCAP</th>
<th>EPS</th>
<th>MVP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7.719841</td>
<td>11.18372</td>
<td>1.521429</td>
<td>0.970317</td>
</tr>
<tr>
<td>Median</td>
<td>4.070000</td>
<td>11.19393</td>
<td>1.220000</td>
<td>0.860000</td>
</tr>
<tr>
<td>Maximum</td>
<td>96.85000</td>
<td>12.00600</td>
<td>8.740000</td>
<td>6.030000</td>
</tr>
<tr>
<td>Minimum</td>
<td>-0.920000</td>
<td>9.652670</td>
<td>-12.51000</td>
<td>0.120000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>13.95683</td>
<td>0.509816</td>
<td>2.523255</td>
<td>0.68446</td>
</tr>
<tr>
<td>Skewness</td>
<td>4.565286</td>
<td>-0.465144</td>
<td>-2.109540</td>
<td>6.605246</td>
</tr>
</tbody>
</table>

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The standard deviation (SD) with spread indices not far from zero for LOG-MCAP, EPS, and MVP indicate lower risk of the predictor variables on the response variable. At varying extents therefore, LOG-MCAP, and EPS have the potential to improve the performance measure of MVP. However, HCE demonstrates high risk variability with MVP as indicated by an SD of 13.95683. Except EPS and MVP, the skewness within the range of greater than -1 and less than 1 for HCE and LOGMCAP connotes moderate skewness of the data-set. While HCE and MVP demonstrated kurtoses of greater than 3 which indicate heavy tail and low peakedness in the shape of the distribution, the kurtoses of MCAP and EPS are less than 3 showing light tails and high peaks in the shape of the distribution.

Table 15: Correlation Estimates of HCE, LOG-MCAP, and EPS with MVP

<table>
<thead>
<tr>
<th>Variable</th>
<th>HCE</th>
<th>LOG_MCAP</th>
<th>EPS</th>
<th>MVP</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCE</td>
<td>1.000000</td>
<td>0.148730</td>
<td>0.130943</td>
<td>-0.007843</td>
</tr>
<tr>
<td>LOG_MCAP</td>
<td>0.148730</td>
<td>1.000000</td>
<td>0.325899</td>
<td>-0.149916</td>
</tr>
<tr>
<td>EPS</td>
<td>0.130943</td>
<td>0.325899</td>
<td>1.000000</td>
<td>-0.070755</td>
</tr>
<tr>
<td>MVP</td>
<td>-0.007843</td>
<td>-0.149916</td>
<td>-0.070755</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Source: Eview Regression Result, 2023

Table 16: Regression Estimates of HCE, LOG-MCAP, EPS with MVP

<table>
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Effects Specification
- Cross-section fixed (dummy variables)
- Period fixed (dummy variables)
- R-squared: 0.328465
- Mean dependent var: 0.970317
- Adjusted R-squared: 0.074258
- S.D. dependent var: 0.684466
- S.E. of regression: 0.257362
- Akaike info criterion: 2.236883
- Sum squared resid: 19.50580
- Schwarz criterion: 2.849207
- Log likelihood: 52.46181
- Hannan-Quinn criter.: 2.477713
- F-statistic: 1.294745
- Durbin-Watson stat: 2.504678
- Prob(F-statistic): 0.239278

Source: Eview Regression Result, 2023

Regression Equation: MVP = -1.919601 + HCE0.002158 + LOG-MCAP0.257362 - EPS0.003289

The disaggregated results of the variables for hypothesis four are shown in Table 16. The intercept adds a beta coefficient of -1.919601 (191.9601%) to MVP, if other parameters of the regression equation are held constant. HCE and LOG-MCAP respectively contribute beta coefficients of 0.002158 (0.2158%) AND 0.257362 (25.7362%) to MVP, when other parameters are held constant. EPS returns a beta coefficient of -0.003289 (-0.3289%), if other parameters are also held constant. The P-values for all the parameters in the regression are greater than 0.05 level of significance. Similarly, the calculated T-values of -0.375825 for the constant, 0.275982 for HCE, 0.566120 FOR LOGMCAP, and -0.070436for EPS are less than the critical T-value of 2.000.

However, the multiplicative Adjusted R-squared of the analysis is 0.074774 (7.4774%), as shown in Table 16. In the same table, the F-probability of 0.239278 is greater than 0.05 level of significance while the calculated F-statistic of 2.236883 is less than the critical value of 2.72. Therefore, the null hypothesis four (HO4) is not rejected. Except for coordinates of the same variables moreover, the indices of greater than -0.9 and less than 0.9 in Table 15 indicates the absence of multicolinearity whereas the
Durbin-Watson index of 2.504678 in Table 16, which is less than 3 implies the absence of autocorrelation in the analysis. Hence, the appropriateness and adequacy of the model as used for the test.

5. DISCUSSION OF THE FINDINGS

The rejection of null hypothesis one (HO1) and null hypothesis three (HO3) implies that the nexus between human resource investment disclosure and financial performance of deposit money banks measured by return on equity (ROE) is statistically significant. Drucker (1993) and Grant (1996) asserted that human resource component of intellectual capital (IC) is widely acknowledged as the most important source of value creation and competitive advantage. Amahalu, Obi, Abiahu, and Okika (2016) also found that human resource practices had positive and statistically significant effect on Financial Performance of deposit money banks. Other investigations that demonstrated a positive relationship between human resource practices and financial performance of banks include but are not limited to Tasawar (2019), Inua and Oziegbe (2018), Ekwe (2012), Ku & Mahfoudh (2011). However, the human resource cost (HRC) in HO1 demonstrated greater influence on ROE than the human capital efficiency (HCE) in HO3. The beta coefficient of 68.9050% contribution to ROE by LOG-HRC in hypothesis one is largely more significant than the beta coefficient contribution of 1.4548% to ROE by HCE in hypothesis three. Therefore, the Adjusted R-squared of 83.7850% in Table 12 for hypothesis three is largely contributed by TA and LR (the control variables) with respective beta coefficients of 250.8995% and 58.0384%.

The multivariate regression model supported the non-rejection of the null hypothesis two (HO2) and null hypothesis four (HO4). Such outcome means that the human resource investment disclosure is not positively significant with financial performance of deposit money banks denominated into market value performance (MVP). The beta coefficients for LOG-HRC in the test of hypothesis two and HCE in the test of hypothesis four apparently and respectively indicated -24.2627% and 0.2158% contributions to MVP. However, the insignificant multiplicative Adjusted R-squared indices of 13.8969 % and 7.4774% respectively in HO2 and HO4 may have largely resulted from control variables. For instance, LOG-MCAP yielded a beta coefficient of 34.7025% in the test of hypothesis two and a beta coefficient of 25.7362% in the test of hypothesis four.

The results of the tests in HO2 and HO4 are largely divergent with the extant management literature. Such literature holds that human resource or human capital is the driving force for organizational value creation, especially in the current knowledge intensive economy. Wagner (2007) observed that human capital is one of the intangible assets that attract investors’ attention while considering investment options. Thus, Amahalu, Obi, Abiahu, and Okika (2016) recommended the capitalization of human resource in the statement of financial position to facilitate better investment decision. Chukwu, Ugo, and Osisioma (2019) demonstrated that the disclosure of the proportion of highly paid employees of the staff had a significant effect on the market value of firms.

Chukwu, Ugo, and Osisioma (2019) further concluded that the strength of valuable stock of human capital in the payroll of banks is capable of boosting the investors’ confidence. In contrast with the extant literature, the empirical result of the current investigation shows that the investors in the banking sector of Nigeria seem not to significantly consider human resource component of banks in their investment decisions. Perhaps, such investors do not understand the capacity of HR in improving the operating and profitability outlook of a firm, which could in turn impact the capital market outlook of the firm. Hence, the negative and insignificant positive beta coefficients of -24.2627% and 0.2158% for LOG-HRC and HCE in the test of hypotheses two and four respectively. As sequentially indicated by the standard deviation indices for LOG-MCAP in Tables 6 and 14, beta coefficients in the test of hypotheses two and four are confirmations of its greater influence on investors in the banking sector of Nigeria.

6. CONCLUSION, IMPLICATION, AND RECOMMENDATIONS

6.1 Conclusion and Implication

The paradigm shift in the business competition and profitability models is increasingly necessitating the revaluation of business model elements measured by content and quality of knowledge. The old paradigm is benchmarked on availability and accessibility of productive materials and equipments while the new paradigm is about the efficiency of value chain and supply chain management of goods and services on the basis of competitive knowledge content. Hence, the strategic shift from physical assets to intellectual assets and resources. As one of the components of intellectual assets, human resource (HR) is the driving force for organisational value creation in the current knowledge intensive economy. Moreover, there is a rich deposit of intellectual resources in the stock of human resource more than any other organizational element.

Despite the increasing use of artificial intelligence (AI), the knowledge base of HR explains what, how, and why of all corporate actions. HR however comprises of the leaders, strategists, and workforce of an organization. Olayiwola (2016) described HR as the agglomeration of all the applicable and potentials skills and experiences within business entities. This study focused on investigating the impact of human resource investment and its disclosure on
corporate financial performance of deposit money banks in Nigeria.

A number of prior studies have demonstrated a positive nexus between human resource practices and financial performance of firms in the banking and non-banking sectors. Obulor and Ohaka (2020), Tasawar (2019), Inua and Oziegbie (2018), Amahalu, Obi, Abiahu, and Okika (2016), Ekwe (2012), Ku and Mahfoudh (2011) are few examples of such studies. However, many deposit money banks in Nigeria have failed to recognize the strategic and competitive importance of their workforce as assets with future economic benefits, despite the popular apriori belief of a positive nexus between the variables in the extant management literature. Instead, some of them adopt employees’ lay-off as cost reduction strategy for short-range profitability at the expense of long-range productivity, competitiveness, and profitability that could result from low labour turnover, staff training and development. Perhaps, many of them do not believe in the value relevance of human resource investment and management as well as disclosing same in their annual financial reports or may be striving to achieve a contrary expectation by Nigerian investors and customers.

The researchers deployed causal comparative and descriptive research designs and obtained relevant secondary data from audited financial reports and factbooks of the Nigerian stock exchange (NSE). Utilising regression analysis for estimating the test result, the researchers found a strong positive association between human resource investment disclosure (HRID) variables and corporate financial performance measured by ROE in the test of hypotheses one and three. The test of hypotheses one and three respectively indicated Adjusted R-squared indices of 83.9444% and 83.7850%. However, the regression estimates of hypotheses two and four indicated a weak positive relationship between HRID variables and corporate financial performance denominated into MVP.

Their respective Adjusted R-squared indices are 13.8969 % and 7.4774%. The insignificant results in the test of hypotheses two and four may be attributable to the short-range profit drive of most capital market investors in Nigeria and the strategy of most DMBs to satisfy same. The size of market capitalisation of the banks seemed more important to such investors than the quality of the HR, as demonstrated by a more significant test outcome for MCAP in both hypotheses. The researchers attributed such assumed philosophy of the investors to poor knowledge about appropriately ranking business model elements (resources). Ceteris Paribus, the researchers concluded a positive nexus between HRID and corporate financial performance but further held that the significance of the relationship could improve with more HR practices. Thus, a greater measure of human resource practices could enhance the long-range corporate financial performance of deposit money banks in Nigeria.

6.2 Recommendations

1. Deposit money banks (DMBs) in Nigeria should be intentional about investing in HR and disclosing same in their annual financial report as strategies for attracting and retaining high quality workforce as well as for competitive performance. Such HR-related investment may include but are not limited to competitive salaries and wages, training and development among others.

2. Accounting regulatory authorities in Nigeria should adequately protect the interest of stakeholders by standardizing human resource practices and enforcing a minimum threshold of compliance on DMBs in the country. Such will strengthen trust in the banks and objective decision among their wide range of stakeholders, especially the active and potential shareholders and customers.

3. Nigerian stock exchange (NSE) and other accounting regulatory authorities should specifically make human capital efficiency (HCE) as contained in the VAIC model a compulsory accounting ratio to be disclosed by DMBs in Nigeria.

4. In congruence with the suggestion of voluntary human factor disclosure by International Federation of Accountants (IFAC, 2017) and Financial Accounting Standards Boards (FASB, 2001), the researchers also recommend voluntary human resource disclosure for DMBs in Nigeria. More so, as one of the objectives of IFRS is to improve accounting disclosure and narrow information deficit across various users of annual financial reports. Thus, making the published financial statements more meaningful and useful to varying range of users.

REFERENCES


Appendix 1

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## Appendix 4

### Table 4: Panel Data 4

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