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THE EFFECT OF INTELLECTUAL CAPITAL ON THE FINANCIAL PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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A B S T R A C T

This study evaluates the relationship between intellectual capital and the financial performance of deposit money banks in Nigeria. Specifically, it aims to establish nexus between two proxies of intellectual capital, structural and human capital, and two facets of financial performance, return on assets and earnings per share. All the deposit money banks registered in the Nigerian stock exchange constitute the study population; however, only eight banks that published the required data between 2012 and 2020 were sampled. The study adopted Pulic's (2004) method of measuring intellectual capital and Hamdan's (2018) and Ozkan et al. (2016) model specifications. The model and collected data were analysed using simple regression analysis. The research revealed a significant relationship between structural capital and return on asset (ROA). It also found a significant association between human capital and earnings per share (EPS). Based on the result, we recommend that Nigerian bank managers and policymakers integrate intellectual capital into their decision-making process and pay more attention to this alternative source of capital to enhance their financial performance. Also, the management of banks should provide a conducive work environment, enhance the welfare packages of their staff and ensure an excellent in-house training program.

1. INTRODUCTION

Intellectual capital is the knowledge, experience, skills, good relationships, and technological capabilities that give organisations a competitive advantage (Zehri et al., 2012). Because intellectual capital is both invisible and intangible, conventional metrics cannot adequately capture its value (Rastogi, 2000; Erickson & Rothberg, 2009). Intellectual capital includes human and structural capital. Customers, processes, databases, brands, and systems are the constituents of structural capital (Nafukho et al., 2004). According to Nadeem et al. (2017), intellectual capital improves the financial performance of companies regardless of location. The knowledge available to the organisation becomes a competitive advantage that sets it apart from others. As a result, many organisations are now cognizant of an essential truth: their actual value is reflected in their physical and intellectual capital. This intellectual capital comprises workers' innovations, skills, and the organisation's mastery, as well as patents and customer relations. On the other hand, the rapid change and development of the modern environment necessitate constant innovation in all facets of economic, social, and technological life (Duho & Onumah, 2019). Therefore, innovation as a strategic input into the organisation's work and activities at all levels has become essential. Due to the pressing need for increased performance and innovation, organisations are shifting their focus to their intangible assets, which include intellectual capital. According to Petty and Guthrie (2000), two primary knowledge management missions are undergoing development. They represent an ongoing effort to develop a more efficient system for creating, capturing, and disseminating knowledge within organisations. The second is that more and more people are realising that expertise adds a lot to the value of a business and, in some cases, makes up almost all of that value.

The objective of the intellectual capital concept is to develop new models that can measure, record and report the value attributable to intellectual capital. It is time for traditional financial and management accounting practices to adjust to the new

paradigm. This rise of the new economy, driven by information and knowledge, is cited by the Organisation for Economic Cooperation and Development (OECD) (2000) as the reason for the rise of intellectual capital as a business and research topic. There appears to be little consensus regarding the extent to which intellectual capital is utilised in business (Guthrie, 2001). Yet, intellectual capital, in one form or another, is implicated in recent economic, managerial, technological, and sociological development in a previously unknown and largely unanticipated manner. The development of new knowledge-based intangibles, organisational structures and processes, know-how, and intellectual and problem-solving abilities resulted from the rise of the modern organisation and the information economy (Petty & Guthrie, 2000). Management is looking for survival strategies in a business environment characterised by global competition, strategic adaptation, increasing customer demand, and the explosion of service industries. The concept of intellectual capital is not new to business management, but it has assumed an unprecedented new importance. Recently, there has been a growing realisation that a company's stock of intangible assets contributes to its ability to maintain a sustainable competitive advantage. Notably, it is acknowledged that knowledge-based intangibles are central to the process of creating value. In order to differentiate these intangible assets from financial capital, which has historically served as the basis for wealth creation, the term "intellectual capital" is increasingly being used. Intellectual capital refers to a much broader range of assets than those commonly considered intangible, such as goodwill, brands, and company reputation. Accounting concepts are necessary for elucidating the hidden value attributed to intellectual capital by the capital markets. This figure is the difference between the market and book value of a company's assets, as determined by accounting standards. Intellectual capital and intangible assets need to be set apart clearly so that the accounting treatments for intangible assets don't have to be changed to include intellectual capital.

Rather than traditional land and equipment assets, intellectual capital now accounts for most of a company's market value. Physical capital, such as land, buildings, and machinery, has been regarded as the most influential factor in a company's economic performance over time. However, this traditional way of thinking is undergoing a substantial transformation with the emergence of science, technology, and globalisation. This newly discovered emphasis on intellectual capital is the impetus behind the evolution of this thought. Under the new system, workers' knowledge, abilities, skills, experience, and attitudes are intellectual capital and essential resources for boosting the performance of businesses. While software manufacturing, finance, and pharmaceutical companies rely on their intellectual capital to generate revenue, production or manufacturing companies use intellectual capital in conjunction with their physical assets to gain a competitive advantage (Taje, 2014). According to Bornemann and Alwert (2007), businesses that manage their intellectual capital more effectively enjoy a greater competitive advantage than those that do not. Their findings imply that companies that improved their intellectual capital management performed better than those that did not. Brennan and Connell (2000) assert that managing an enterprise's intellectual capital is crucial to its long-term business performance. In addition, it is argued that the inability of financial statements to explain firm value stems from the fact that the source of economic value is no longer limited to the production of material goods but also the creation of intellectual capital. In recent years, however, intellectual capital has also been the subject of extensive research in the developed world, particularly in specific industries. Given how important intellectual capital is to a company's ability to create value, accountants must ensure that every business report includes the right information about a company's intellectual capital stock.

The recent global financial crisis, coupled with numerous local and international financial scandals, has rekindled concerns and sparked debates regarding the relationship between intellectual capital and the performance of deposit money banks. Further arguments and concerns include the role of financial accounting/reporting and corporate audit in corporate governance and the value of an organisation's intellectual capital. This debate is sparked by globalisation, strategic coalitions and alliances between multinational corporations, and the transition to a knowledge-based economy. Although numerous research has been conducted on the topic, there is still a lack of data describing how intellectual capital components affect the financial performance of banks in Nigeria in the period under consideration. In their various studies, scholars of financial and corporate reporting have theoretically and empirically examined the effect of intellectual capital on the valuation of businesses. But instead of solving the problems, the results have been inconsistent and contradictory, which led to this investigation.

To direct the research, the following null hypotheses were developed:

H01 There is no correlation between structural capital and the return on assets of deposit money banks in Nigeria.

H02 There is no correlation between human capital and earnings per share of deposit money banks in Nigeria.

The research establishes the following criteria for accepting and rejecting null hypotheses: If the standard error of β_1 [S $(\beta_1) > 1/2 \ \beta_1$], we accept the null hypothesis. We accept that the estimate β_1 is not statistically significant at a 5% (0.05) significance level. If the standard error of β_1 [S $(\beta_1) < 1/2 \ \beta_1$], we reject the null hypothesis. In other words, we accept that the estimate β_1 is statistically significant at a 5% (0.05) significance level. Using the student t-test (t-statistic), a variable is statistically significant if t* (t-calculated) exceeds the tabulated value of 1.96 at 95% (or 5%) confidence levels. Under confidence levels of 95% (or 5%), it is statistically meaningless if t* is less than 1.96.

2. AN ANALYSIS OF RELATED AND EMPIRICAL LITERATURE

Gailbraith proposed the idea of intellectual capital for the first time (Shehzad et al., 2014). Evidence abounds in the literature regarding how intellectual capital improves firms' performance (Chan, (2009); Singh et al. (2016); Ghosh & Mondal

(2009), as well as productivity (Wegar & Haque, 2020; Singh & Narwa, 2016). According to Egungwu and Ursula (2017), intellectual capital has multiple definitions because various professions, including accounting, management, economics, and law, approach this concept differently. Several scholars argue that knowledge and intellectual capital are critical in a knowledge-based economy beginning in the twenty-first century (Andriessen, 2004b; Bontis, 1999; Dumay, 2011; Dumay and Cuganesan, 2011; Edvinsson, 1997; Dal Mas et al., 2020; Erickson and Rothberg, 2009; Pike et al., 2005; Roos & Roos, 1997). Khalique (2013) asserts that intellectual capital is the third "big idea" of the past two decades of management theory, following total quality management and reengineering. In their studies, Tan et al. (2007) discovered that increasing intellectual capital improves a company's value and financial performance. Berzklane and Zelgalve's (2014) model established a statistically significant and positive relationship between intellectual capital and firm value for Latvian and Lithuanian firms, in contrast to the observation for Estonian firms. According to Shahmoradi et al. (2017), the relationship between intellectual capital indicators and accounting-based performance is significant and positive. In contrast, market value relates solely to the variable of the firm's size. Their research also reveals no correlation between market value and intellectual capital. Ekwe (2012) discovered a statistically significant correlation between the components of intellectual capital and return on assets (ROA), return on equity (ROE), employee productivity, and market/book value ratio. In the current global economic system, intellectual capital plays a greater role in determining the performance of businesses (Andriessen, 2004a, 2004b; Augier and Teece, 2005; Massingham and Tam, 2015; Zigan & Zeglat, 2010). Lev et al. (2012) argue that intellectual capital is crucial for contemporary businesses and societies. Intellectual capital gives a company a competitive edge and encourages innovation (Andriessen, 2004a, 2004b; Puntillo, 2009; Kong, 2010; Kong and Ramia, 2010; Lindgren et al., 2009). The Organisation for Economic Cooperation and Development (OECD) (1996) defines intellectual capital as the economic value of human capital and organisational/structural capital, which are a company's intangible assets. Accounting-wise, intellectual capital can be inferred as the difference between a company's book value and market value (de Pablos, 2003). In recent years, intellectual capital has become an intriguing topic of study for many accountants (Ulum, 2015). According to him, the ingredients of knowledge acquisition and skills that are believed to be intangible assets that add value to a company's development can be found in the definitions provided by the various disciplines.

In a broader sense, intellectual capital consists of human and social capital, whereas human capital refers to a person's education, training, experience, abilities, and knowledge. Pulic (2004) devised a method for measuring intellectual capital known as the value-added intellectual coefficient (VAIC). VAIC is a method for measuring the contribution of physical, human, and social capital to banks' value addition (VA). This methodology is fundamental and adaptable, and the number of global studies employing it has increased over the past few years. Zéghal and Maaloul (2010) defined intellectual capital as all knowledge that can be applied to daily business processes to generate value (VA). The intellectual capital-based concept and the resource-based approach view intellectual capital as a strategic source for a bank to create value. According to Abeysekera (2010), the Resource Dependency theory relates to a company's human resources if the company holds human capital and cultivates learning environments. The Resource Dependency theory has two distinct foci: first, an emphasis on the long-term relationships between banks and various stakeholders who protect the bank from unforeseen shocks; and second, an emphasis on the short-term relationships between banks and their customers. The second viewpoint is pragmatic and aids the bank in maintaining long-term relationships with its stakeholders. Becher and Juergens (2013) discovered that firms' cash flow and profits increase when they invest more in research and development, which includes employee training costs. Intangible assets are ideal and exceptional for sustaining a competitive advantage over time. Because banks rely on both immaterial and physical resources that are interconnected to improve performance, a process of continuous learning is crucial for them. In a comprehensive analysis of numerous core competencies, Andriessen (2004) concluded that combining intangible assets, such as specific knowledge and skills, with tangible assets enhances organisational performance. Iswatia and Meressa (2016) contend that intellectual capital is crucial for transitioning from the industrial to the information era. According to Zschockelt (2009), organisational capital is typically viewed as institutionalised knowledge and codified experience stored in databases, routines, patents, manuals, and other formats. Marr and Moustaghfir (2005) assert that there is no consensus on the precise definition and components of institutional and structural capital and their components.

Although there is no agreement on the definition of structural capital or its constituents, it is necessary to define and identify its components to measure it. Structural capital has been described in various ways by both academics and practitioners. According to Bontis (2003), structural capital is everything left in the organisation at 5 p.m. It is what remains after employees leave for the day (Bchini, 2015); it belongs to or is controlled by the organisation (Marr et al., 2003); it can be reproduced and shared (Van den Berg, 2003). Unlike human capital, structural capital can be owned and traded (Bontis, 2003). It represents the codified knowledge base that employees lack (Bonis & Fitz–enz, 2002). This structural capital consists of processes, systems, structures, brands, intellectual property, and other intangible assets (Roos et al., 2001). According to Abdullah and Sofian (2012), structural capital refers to the stock of printed and codified knowledge. According to Wu et al. (2012), intellectual capital is a highly efficient method for collecting, testing, organising, and integrating existing knowledge, eliminating the impure, keeping the pure; and disseminating it. It provides valuable information and knowledge to research and development units and enables employees to respond more effectively to risk and uncertainty (Talebi & Bahamir, 2012). According to Chang and Chen (2012), Intellectual Capital is the company's comprehensive system and procedures for resolving problems and creating value. It refers to the non-human knowledge repositories in an organisation that involve

organisational structures, such as organisational routines, the business structure, and various forms of intellectual property (Taghizadeh & Zeinalzadeh, 2012).

According to Park et al. (2012), structural capital is the sum of the capital resulting from internal processes, relationships, communication, innovation, research, development, and innovation. Organisational capital is intended to support all other elements of intellectual capital created within the organisation (Delgado-Verde et al., 2016). The categories of structural capital are either dynamic or static. The dynamic category consists of organisational culture and climate and the operation of communities of practice and innovation networks. The static class consists of procedures, policies, and data (Sonnier et al., 2007). According to Pea (2002), structural capital derives from organisational value, internal processes, infrastructure, culture, renewal, and development strategies. The embodiment, empowerment, and supporting infrastructure of human capital constitute structural capital (Chatzkel, 2006). Structural capital is the competitive intelligence, formulas, information systems, patents, policies, and processes that result from an organisation's products or systems over time (Ali et al., 2018). The division of structural capital comprises the structures and processes that employees develop and implement to be productive, effective, and innovative (Boujelbene & Affes, 2013). Generally, the organisation's investments in information technology positively impact its operations. Structural capital is the codified knowledge foundation that does not exist in employees' minds (Bontis & Fitz-Enz., 2002).

Existing theories have resulted in various definitions of human capital, as indicated by the available literature. According to Dean et al. (2012), human capital comprises an organisation's labour force's talents, skills, and knowledge. Verguwen and Alem (2005) defined it as the value of all employees within an organisation and the benefits of their utilisation. In addition to the aforementioned, Weatherly (2003) defines human capital as the sum of the attributes, life experience, knowledge, creativity, energy, and enthusiasm that an organisation's employees choose to invest in their work. Similarly, Yusuf (2013) argued that human capital is a broad concept that encompasses numerous components but essentially describes the quality of the labour force. There is no consensus regarding the definition of human capital. However, it is generally accepted that human capital is a component of intellectual capital. According to Verguwen and Alem (2005), although organisations invest in human capital, it has been argued in the existing literature that it does not belong to organisations but the respective employees. Accounting for human capital illustrates the valuation and contributions of workers' intellects and skills to the growth and development of an organisation. According to Buba et al. (2019), human capital consists of the intangible assets of skills, effort, and time that the workforce contributes to their responsibilities. According to Bontis and Fitzenz (2002), human capital accounting is the amount of workers' skills, knowledge, and abilities that add to the market value of the company.

Typically, a company's performance is based on its market value. Intellectual capital influences value due to reduced expropriation by insiders and an increase in expected cash flow that can be distributed to investors (Leitner, 2011). Numerous profit substitutes can be found in the literature. Return on asset (ROA) measures operating performance based on shareholder equity and describes the management's effectiveness. ROA indicates how profitable a business's assets are at generating revenue. It is a valuable tool for comparing competing businesses in the same industry. Another performance metric is earnings per share (EPS). Balaputhiran (2014) established the relationship between a company's performance and earnings per share. According to Ebrahimi et al. (2011), most stockholders, investors, and other stakeholders place a premium on a company's earnings data. For a company's profitability, EPS is one of the most important factors to consider (Chucks et al., 2021). EPS is one of the most influential factors in profitability. A rise in EPS will increase equity and affect the share's market value. Muhammad et al. (2016) hypothesised that the increase in profitability would increase the demand for shares of that company. Bontis et al. (2000) examined the impact of the three intellectual capital components (human, structural, and relational) on business performance and their interrelationships in Malaysian industries. The results indicate that the intellectual capital components affect business performance and have interdependencies. In another study, Firer and Stainbank (2003) examined the relationship between intellectual capital and the performance of South African firms. They argued that intellectual capital positively correlates with profitability and productivity but not market value. In his research, Kamath (2008) analysed the performance of intellectual capital and pharmaceutical companies in India. The outcome demonstrates that human capital influences profitability and productivity but has no correlation with the market valuation. Firer and Stainbank (2003) and Kamath (2008) say that intellectual capital, especially human capital, can significantly affect specific service and manufacturing sectors, like banks and financial institutions, hotels, the information and technology industry, education, pharmaceuticals, chemicals, and petrochemicals.

Nadeem et al. (2017) investigated the relationship between intellectual capital and the performance of banks in BRICS (Brazil, Russia, India, China, and South Africa) economies from 2005 to 2014. They implemented the generalised method of movements estimator, dynamic OLS, and the Wooldridge strict homogeneity test. They discovered that (intellectual capital efficiency) ICE is significantly associated with banks' performance. In addition, all forms of capital contribute positively to the performance of an organisation. They stated that the resource dependency (RB) theory incorporated the importance of intangible assets for the performance and stability of a business. Rehman et al. (2022) investigated the extent of intellectual capital efficiency (ICE) and the connection between its three components (human capital efficiency, structural capital efficiency, and relational capital efficiency) and Islamic banking performance in Muslim countries. The study uses a two-step generalised method of moments estimator (2SYS-GMM) to analyse the data collected from 129 Islamic banks in 29 Muslim nations between 2008 and 2017. This study provides evidence that their investment in intellectual capital primarily drives

Islamic banks' (IBs') performance. In addition, the results indicated that structural capital efficiency (SCE) and relational capital efficiency (RCE) are the most important value drivers for Islamic banks to achieve high performance. Weqar and Haque (2022) studied the impact of intellectual capital (IC) and its dimensions on the financial performance of Indian companies. The analysis was based on the 2013-2018 data of 88 Indian companies and adopted the value-added intellectual coefficient (VAICTM) model. The outcome demonstrates that intellectual capital significantly improves the profitability and output of the Indian tea industry. Olarewaju and Msomi (2021) investigated the relationship between intellectual capital and financial performance from 2008 to 2019. They gathered 696 observations from 56 insurance companies. Using the Value-Added Intelligent Coefficient model, the results showed that the lagged return on assets, intellectual capital, and financial performance of insurers in the South African Development Community are all directly and significantly related.

Weqar et al. (2021) examined the influence of intellectual capital on the financial performance of knowledge-driven companies in India. Their findings indicate that the Value Added Intellectual Coefficient does not correlate with the profitability and productivity of the sample companies. Shaneeb and Sumathy (2021) examined the effect of intellectual capital on the financial performance of the Indian textile industry by utilising Pulic's Value-added intellectual capital coefficient (VAICTM) model. The study discovered that structural capital efficiency (SCE) has no effect on the profitability, productivity, and return on equity of the Indian textile industry. Cahyaningrum and Atahau (2020) examined the relationship between intellectual capital and the financial performance of banks, with the banks' risk serving as an intervening variable. The study used a purposive sampling technique to sample 30 sample firms from publicly-traded Indonesian banks between 2015 and 2017. The results demonstrated that banks' risks do not mediate the relationship between intellectual capital and banks' financial performance; however, intellectual capital has a negative impact on operational risk and market risk. Using the VAIC model, Weqar and Haque (2020) empirically examined the impact of intellectual capital on the financial performance of India's central public sector enterprises (CPSEs). The results showed that intellectual capital has a weak relationship to profitability (ROA) and market valuation but is a strong predictor of productivity. Ramadan et al. (2017) investigated intellectual capital's influence on Indonesian banking firms' stock returns. The regression models investigate the connection between present and future stock returns, intellectual capital, and their constituents. The findings indicate that intellectual capital has no effect on the current stock return, but it does contribute to the growth of the stock return. Fathi et al. (2013) investigated the association between intellectual capital and financial performance. The empirical data was compiled from a sample of 49 Iranian firms listed on the Tehran Stock Exchange (TSE). The results indicate a significant positive relationship between intellectual capital and value-added effectiveness of the structural component of intellectual capital and three measures of financial performance (ROE, ROA, and GP). Kehelwalatenna and Gunaratne (2010) investigate the empirical relationship between intellectual capital and firm performance and investors' responses, surveying Sri Lankan manufacturing firms between 2002 and 2006. The study used Pulic's Value Added Intellectual Coefficient (VAIC) to measure the intellectual capital and the value creation efficiencies of capital employed, human capital, and structural capital for a sample of firms. The level of importance accorded by investors to three components of value creation effectiveness (physical capital, human capital, and structural capital) was considered inconsistent. Shakirz et al. (2013) examined the impact of intellectual capital on the business performance (BP) of Jordanian telecommunications firms (JTC). The study used empirical analysis to gather data from 84 out of approximately 500 managers. The results also show that relational capital has a positive and significant impact on the JTC's business performance, while structural capital has no significant impact on the JTC's business performance. Empirical results also showed strong interrelations and interactions between the three components of intellectual capital. Okeke et al. (2019) investigated the association between intellectual capital and financial performance in the Nigerian banking sector. An ex-post facto research design was utilised in the study. All of the hypotheses were examined using multiple regression analysis techniques. The results showed a strong positive relationship between the VAIC components and the return on assets (VIAC coefficient) of Nigerian banks.

3. METHODOLOGY

This research utilised an expo-factor design. This study is based on the annual report of financial statements of the sampled deposit money bank.

3.1 Model Specifications

The research utilised the Public (2004) method of measuring intellectual capital, also known as the Value-Added Intellectual Coefficient (VAIC). Our model followed that of Hamdan (2018), Mohammed and Irbo (2018), and Ozkan et al. (2016).

$$ROA_{it} = \alpha + \beta_{it} SCE_{it} + \mu_{it} \text{————————————————-1}$$
$$EPS_{it} = \alpha + \beta_{it} HCE_{it} + \mu_{it} \text{————————————————-2}$$

Where α is constant; β_{it} is the slope, and μ_{it} is random error.
ROI is Return on Assets.
EPS is Earnings Per Share.

SCE represents Structural Capital Efficiency. It is equal to structural capital divided by value-added, where value-added is profit + human capital + depreciation. Structural capital is value-added minus human capital.

HCE represents Human Capital Efficiency. It is calculated as value-added divided by human capital, where human capital is the total amount spent on the employees in the year.

Using regression analysis, we analysed and estimated the data. This analysis involves estimating the model to determine the impact of structural and human capital on the financial performance of deposit money banks. The objective of the estimation method is to obtain parameter estimates that allow us to interpret the regression coefficients and, as a result, provide a better fit.

4.   THE RESULT

Ho1-There is no significant relationship between structural capital and return on assets of deposit money banks in Nigeria.

Regression Result Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.906[a]	.819	.800	1.009	2.09

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	88.90	1	88.90	14.8	.000[b]
	Residual	112.09	363	.29808		
	Total	200.99	364			

Coefficientse						
Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.141	.601		11.99	.000
	Structural capital	.621	.466	.889	3.89	.000

ANOVA Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.45	4.38	3.75	.388	363
Residual	-2.897	2.552	.000	.732	363
Std. Predicted Value	-3.341	1.632	.000	1.000	363
Std. Residual	-3.951	3.480	.000	.998	363
a. Dependent Variable: return on asset					
b. Predictors: (Constant), Structural capital					

Source: SPSS regression printout, 2022 (version 24.0 for Windows output).

This hypothesis aims to establish the extent of the relationship between structural capital and return on assets of Nigerian deposit money banks. From the regression result above, we observed as follows:

The calculated t-value for structural capital (SC) is 3.89, which exceeds the critical value of 1.96. This value falls within the rejection region; consequently, we will reject the first null hypothesis and conclude that structural capital significantly influences the return on assets of deposit money banks in Nigeria. The F-statistics, which examines the overall significance of the regression model, revealed that the result is significant, as indicated by the F-statistic value of 14.8, and it is significant at the 5% level. The coefficient of determination (R-square), which measures the goodness of fit of the estimated model, indicates that the model predicts reasonably well; that is, 81.9% of the change in return on assets was attributable to structural capital. In contrast, the error term captured 18.1% of unaccounted variations. Hence, we conclude that structural capital significantly and positively affects the return on assets of deposit money banks in Nigeria. The Durbin-Watson (DW) statistic was also employed to examine serial correlation or autocorrelation among the error terms. In other words, (random variables) are not autocorrelated with the first-order scheme.

Ho2-Human capital has no significant relationship with earnings per share of deposit money banks in Nigeria.

Regression

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.891[a]	.794	.780	1.089	2.07

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	81.965	1	81.965	10.33	.001[b]
	Residual	195.038	363	.7998		
	Total	277.000	364			

Coefficients						
Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.143	.566		11.33	.000
	Human Capital	.544	.545	.803	3.77	.003

Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.45	4.38	3.75	.388	363
Residual	-2.897	2.552	.000	.732	363
Std. Predicted Value	-3.341	1.632	.000	1.000	363
Std. Residual	-3.951	3.480	.000	.998	363

a.Dependent Variable: earnings per share

b). Predictors (Constant), Human Capital

Source: SPSS regression printout, 2022 (version 24.0 for Windows output).

Human capital's calculated t-value of 3.77 is greater than the critical value of 1.96. Therefore, we reject the second null hypothesis and conclude that there is a significant and positive correlation between human capital and earnings per share of Nigerian deposit money banks. The F-statistics used to assess the overall significance of the regression model revealed that the result is significant at the 5% level. The coefficient of determination (R-square), which measures the goodness of fit of the estimated model, indicates that the model is reasonably well-suited for prediction. The result reveals that 79.4% of the change in earnings per share of deposit money banks was attributable to human capital, while the error term captured 20.6% of unaccounted variations. It was determined that human capital had a positive and statistically significant impact on the earnings per share of deposit money banks during the period under consideration. The Durbin-Watson (DW) statistic of 2.07 indicates no autocorrelation between the variables. As a result, the estimates are based on facts and can be used to make good policy decisions.

5. ANALYSIS OF THE RESULTS

This result confirms the findings of Sharabati et al. (2013) regarding the relationship between structural capital and asset return. They examined the impact of structural capital on the business performance of Jordanian pharmaceutical manufacturing firms. The findings of this study are also consistent with Muli et al. (2014) and Adesina et al. (2015). They examined the relationship between structural capital and the corporate performance of quoted Nigerian banks and discovered a significant positive correlation between structural capital and corporate performance. In contrast, the relationship between human capital and earnings per share is consistent with John-Akamelu and Iyidioba's prior research (2018). Using six selected Nigerian banks from 2010 to 2015, they analysed the impact of intellectual capital on the performance of Nigerian banks. Thus, our study concludes that there is a positive correlation between human capital and the earnings per share of Nigerian deposit money banks.

6. RECOMMENDATIONS

Bank managers and policymakers in Nigeria should incorporate intellectual capital into their decision-making process while emphasising the alternative source of capital to increase asset returns. The management of banks should provide a hospitable work environment, improve employee benefits, and promote quality training. There is a need to develop and diversify the incentive system to motivate employees to innovate and provide new ideas and proposals. Granting employees

a high degree of autonomy at work would foster initiative. This action will increase company productivity and boost customer satisfaction. Intellectual capital increases motivation, which improves performance. When employees are motivated, they will interact with customers more effectively by listening to their complaints and suggestions, working to solve them, and coming up with other ways to ensure customers are happy.

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