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INTANGIBLERESOURCESASPERFORMANCEDETERMINANTSOFLISTED MONEY DEPOSIT BANKS IN NIGERIA

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ABSTRACT

This study examined the influence of ethical values on the sustainable development of cooperative societies in Nigeria, with particular focus on transparency, accountability, and fairness in benefitdistribution. Thestudy adopteda survey research design and was carried out across six states representing the major geo-political and linguistic regions of Nigeria. A total sample size of 600 respondents was purposively and proportionately selected, with 572 valid questionnaires retrieved for analysis. The instrument for data collection was a structured questionnaire titled Ethical Values and Cooperative Sustainability Questionnaire (EVCSQ), which was validated by experts and tested for reliability using Cronbach's Alpha. Data were analysedusingdescriptivestatisticsandPearsonProductMomentCorrelationata0.05levelof significance. Findings revealed that transparency significantly fosters trust, reduces conflict, and enhances cooperative sustainability. Accountability was strongly associated with improved operational efficiency, minimisation of mismanagement, and long-term stability. Similarly, fairness and equity in benefit distribution were found to be critical in retaining members, promoting loyalty, and ensuring cooperative cohesion. Hypothesis testing showed significant positive correlations for all three ethical values with cooperative sustainability, leading to the rejection of all null hypotheses. The study concluded that ethical values are indispensable for the growth, efficiency, and stability of cooperative societies in Nigeria. It recommends that cooperative leaders embrace transparency, accountability, and fairness; government and regulators enforce compliance through monitoring frameworks; and members actively participate to safeguard ethical practices.

Keywords: *Intangible Resources, Earnings per Share, Market Price per Share, Financial Performance, Nigerian Money Deposit Banks.*

INTRODUCTION

In the modern financial and economic landscape, the importance of intangible resources as a driver of firmperformance has become increasingly significant. Traditional measures of corporatesuccess, which once emphasizedtangibleassets suchas buildings, machinery, andfinancialcapital, aregradually giving way to a broader understanding that knowledge-based and non-physical resources play a crucial role in sustainingcompetitiveness (Akinola & Ojo, 2023). Inthebanking industry, whereservices areprimarily intangible, factors such as intellectual property, brand reputation, technological innovation, and human expertise have emerged as key determinants of performance and market value (Okereke, Nnaji, & Ogundele, 2022). Consequently, intangible resources are now seen as strategic assets that enhance efficiency, innovation, and profitability, particularly in the context of developing economies like Nigeria.According to Bello and Danjuma (2024), the financial sector's increasing reliance oninformation and communication technology, customer relationships, and intellectual capital underscores the importance of intangible assets in shaping performance outcomes. Nigerian money deposit banks, in particular, have witnessed significant transformations following the banking consolidation reforms of 2005 and thesubsequent adoption of digital banking platforms. These developments have intensified the role of intangible resources such as customer trust, software systems, patents, and brand equity in improving operational performance and competitiveness (Adekunle, Ibrahim, & Yusuf, 2023). The effectiveness with which banks manage these intangible assets often determines their profitability,market valuation, and sustainability in an increasingly knowledge-driven economy.

The concept of intangible assets encompasses a wide range of elements that lack physical substance but contribute substantially to value creation. These include goodwill, intellectual property, software, research and development (R&D), and organizational competencies (Eze & Olorunfemi, 2022). For financial institutions, intangible assets extend beyond accounting recognition to include customerloyalty, skilled workforce, innovation capacity, and brand credibility. As noted by Akpan and Bello (2024), the banking industry's performance depends not only on capital adequacy and liquidity but also on how effectively it leverages its intangible resources to deliver quality services and maintain stakeholder trust. This shift in focus from tangible to intangible assets reflects the changing structure of the global economy, where knowledge and innovation are central to competitiveness.In the Nigerian banking environment, the measurement and reporting of intangible assets pose significant challenges. Many banks understate the contribution of intangibles to firm performance due to inadequate disclosure practices and weak valuation frameworks (Oladele, Abdullahi, & Ogunyemi, 2023). Consequently, this underreporting obscures the true drivers of performance and limits investors' ability to make informed decisions. Furthermore, thevolatilityinfinancial markets and evolvingtechnological disruptions require banks to continually adapt and reinvest in knowledge-based resources to maintain profitability (Adamu& Enyi, 2022). Understanding the extent to which intangibleresources influence performance indicators such as earnings per share (EPS) and market price per share (MPS) is, therefore, essential for assessing the long-term viability of banks.Moreover, intangible resources contribute to building competitive advantage through innovation, customer satisfaction, and brand differentiation. As noted by Omoregie, Ezeh, and Balogun (2024), banks that strategically manage their intangible assets often experience superior performanceoutcomes compared to thosethat rely solely on physical and financial capital. This underscores the importance of integrating intangible asset management into performance evaluation and corporate strategy. Given the dynamic and competitive nature of Nigeria's banking industry, anempirical analysis of how intangible resources affect key performance indicators becomes imperative.

StatementoftheProblem

In recent years, the performance of listed money deposit banks in Nigeria has continued to fluctuate despite huge investments in technology, staff development, and brand enhancement. This raisesquestions about the true impact of intangible resources on the financial outcomes of these banks. While tangible assets like cash and property remain important, the modern banking environment increasingly depends on knowledge-based assets such as software, customer relationships, and intellectual capital(Eze & Nwachukwu, 2023). However, many Nigerian banks still struggle to recognise, measure, and reporttheseresourcesaccurately,leadingtopoorstrategicutilisationandlimitedcontributionto

profitability.Furthermore, the volatility of the Nigerian financial market, coupled with technological disruptions, has made it difficult for banks to maintain consistent earnings and market stability. Studies have shown that weak management of intangible assets often leads to inefficiency and reduced competitiveness (Oladipo, Ahmed, & Nwosu, 2022). Also, inadequate disclosure standards and inconsistent valuation practices make it challenging for investors and regulators to assess the true worth of banks' intangible holdings (Balogun & Ibrahim, 2023). As a result, the role of intangible assets in driving key performance indicators such as earnings per share and market price per share remains unclear.Despite several studies on firm performance in Nigeria, few have specifically examined how intangible non-current assets intensity affects banks' market and accounting performance indicators.This study therefore seeks to bridge this gap by empirically assessing the extent to which intangible resources determine the financial performance of listed money deposit banks in Nigeria.

Objectivesofthe Study

The broad objective of this study was to investigate the effect of capital intensity on stock returns of quoted deposit money banks in Nigeria. Specifically, the study was to;

i. ascertaintheextent towhich intangibleassetsintensityaffect earningsper shareoflisted money deposit banks in Nigeria

ii. investigatetheextent towhichintangibleassetsintensityaffect market priceper shareof listed money deposit banks in Nigeria

ResearchQuestions

Toachievetheabovespecificobjectives,thefollowingresearchquestionswereformulated;

i. how doesintangible assetsintensity affectearningspershare of listedmoneydeposit banks in Nigeria?

ii. towhatextentdoesintangibleassetsintensityaffectmarketpricepershareoflisted money deposit banks in Nigeria?

ResearchHypotheses

Inlinewiththespecificobjectives,theunder listednullhypotheseswerestatedtoguidethestudy:

H_{01}: There is no significant effect of intangible non-current assets intensity on earnings per share of listed money deposit banks in Nigeria.

H_{02}: Thereis no significant effect of intangible non-current assets intensity on market priceper share of listed money deposit banks in Nigeria.

LITERATUREREVIEW

ConceptofStockReturnsandMeasures

Stock returns represent the gain or loss an investor earns from holding a stock over a specific period, usually expressedas apercentageoftheinitialinvestment. Accordingto Adeyemiand Udo(2022), stock returns serve as a key indicator of a firm's financial performance and investors' confidence in themarket. They are influenced by both internal factors such as firm profitability, dividend policy, and management efficiency, and external factors like inflation, interest rates, and market sentiment (Okafor& Bello, 2023). Essentially, stock returns capture how well an investment performs relative to its cost, thereby guiding investors in making informed decisions.There are several measures used to determine stock returns. One of the most common is the total return, which includes both capital gains and dividends over a period (Yakubu, Eze, & Oladipo, 2021). Another measure is the capital appreciation, whichfocuses solelyonthechange inthestock's price without consideringdividendpayments (Ibrahim, Musa, & Adedeji, 2024). Additionally, risk-adjusted measures such as the Sharpe ratio and Jensen's alphaareoftenappliedtoevaluatereturnsinrelationtothelevelofrisktaken(Nwosu,Adebanjo,&

Tella, 2023).Thesemeasureshelp investorsandanalystsassessperformanceconsistency, efficiency, and the comparative attractiveness of different securities or portfolios.

EarningsperShare(EPS)

Earnings per share (EPS) is one of the most widely used indicators of a company's profitability and financial performance. According to Adebayo and Olamide (2023), EPS measures the portion of a company's net incomethat is attributableto each outstandingshareof commonstock, servingas a direct reflection of shareholders' returns on their investment. It is calculated by dividing the company's net profit after taxes and preference dividends by the number of ordinary shares outstanding (Kehinde & Bakare, 2022). A high EPS typically signals strong profitability, while a declining EPS may indicate financial distress or inefficient operations (Usman, Abdullahi, & Danladi, 2024).Beyond being a profitability metric, EPS is also a crucial determinant of stock prices and investor confidence. As noted by Ezenwa and Kolawole (2023), investors and analysts often rely on EPS trends to assess a firm's growth prospects and to compareperformanceacross companies in thesameindustry. Furthermore, EPS forms the foundation for various valuation ratios, such as the price-to-earnings (P/E) ratio, which helps investors determine whether a stock is overvalued or undervalued (Owolabi, Hassan, & Durojaiye,2024). Therefore, EPS not only informs investment decisions but also influences managerialperformance evaluations and dividend policy strategies.

MarketPriceperShare(MPS)

Market Price per Share (MPS) represents the current value at which a company's stock is traded in the capital market. According to Adeniran and Eze (2023), MPS reflects the price investors are willing topay for a singlesharebased on their expectations of thefirm's futureperformanceand growth prospects. It serves as an important indicator of market perception, summarizing investors' collective judgment about the firm's profitability, stability, and overall worth (Obi & Okonkwo, 2022). MPS fluctuates in response to both internal company factorssuch as earnings, dividend policy, and managementdecisions—and external economic conditions including inflation, interest rates, and market confidence (Balogun, Ahmed, & Yusuf, 2024).Moreover, MPS is a critical measure for evaluating shareholder wealth and investment attractiveness. As noted by Edet and Ibrahim (2023), a consistently rising market price suggests strong investor confidence and effective corporate governance, while a declining price may indicate financial challenges or market uncertainty. MPS also plays a key role in determining a company's market capitalization, whichis theaggregatevalueof its outstandingshares (Lawal, Bello, & Adeoye, 2024). In addition, analysts frequently use MPS in conjunction with financial ratiossuch as earnings per share and price-to-book valueto assess stock valuation and guide investment decisions.

CapitalIntensityandDimensions

Cette, Lopez, and Mairesse (2016) define capital intensity as the amount of real orfixed capital that a firmhas inrelationto other productioncomponents, especiallylabor withina firm. Furthermore, Irianto, Sudibyo, and Wafirli (2017) define capital intensity as the infusion of large amounts of capital into a business or industrialprocess. Therefore, theamount of moneya business investstogenerateat least one dollar's worth of output from the physical and fixed assets it owns or controls is known as capital intensity.This studies measures capital intensity using property plant and equipment intensity, intangible assets investments, long term investment and deferred tax assets intensity. These are discussed below:

Intangible Assets Intensity- In accordance with IAS 38, intangible non-current assets are defined as identifiable nonmonetary assets that lack physical substance. They are therefore resources that the entity controls due to previous transactions or other past occurrences that will result in future financial gains, even though they lack a physical form. These consist of trademarks, computer software, licensing, franchise agreements, and patented technology, among other things.According to Anuonye (2017), the following situations make assets intangible: firstly they are non-financial and lack any tangiblesubstance. secondlythey includetheexpectationoffinancial gain with nolegalrights or with legalrights only withregardto individuals, thirdly it is possiblefor theassets tobeidentifiable, meaningthey canbe soldseparatelywithoutdestroyingthecompanywhensold.Anuoye(2017)furtherarguedthatbecause

intangible assets affect an organization's capacity to produce cash flows, they have a positive effect on the financial status and performance of businesses.

An organization's core competitive competence is reflected in its intangible assets.According to Tsai et al.(2012), intangible assets stand for potential future growth and profitability that support rising firm value. Intangible assets have impact on a company's financial performance, which is reflected in itsreturn and income, Erawati and Sudana (2005). Hidayati& Co. (2012) suggests that there is a positive correlation between tangible and intangible assets.When intangible assets are first recognized at cost, they are valued separately. After being first recognized, intangible assets are carried at cost minus any accrued value. Intangible assets are evaluated according to their either finite or indefinite useful lives. Finite-life intangible assets are amortized over their useful economic lives and evaluated for impairment whenever there is a possibility that they may be impaired. Every year, either individually or at the levelof the cash-generating unit, intangible assets with indefinite useful lives are tested for impairment rather than being amortized. Ayearly reviewof the indefinite lifeassessment is conducted to ascertain whether it is still feasible. Otherwise, a prospective change from indefinite to finite useful life is made. Gains or losses from the de-recognition of an intangible asset are recorded in the profit or loss statement at the time of the asset's de-recognition and are calculated as the difference between the carried amount of the asset and the net disposal proceeds.It is evident from earlier research on intangible assets that there are conflicting findings about the connection between intangibles and a company's profitability. The profitability paradox was first identified by Becalli (2007), who discovered that information technology software intensity resulted to adverse effect on firm profitability. In their research, Tudor et al. (2014) also verified that there was a strong but negative association between intangibles and firm performance.

TheoreticalReview

Signaling Theory

The Signaling theory served as the foundation for this investigation. Michael Spence developed the signaling theory in 1973. People in organizations frequently have to rely on incomplete and unequally dispersed information when making decisions. The goal of signaling theory is to explain how peopleare able to do this. The idea of a "separating equilibrium," which occurs when expectations of a signal are confirmed by actual experiences, serves as theprimary predictive mechanismfor this theory. Thetheory of signaling was firstattributedtoMichaelSpencein2002. Hesuggestedthat insituations wherethereis information asymmetry, people can always communicate their type, ability, and capability. This always transfers information to the other party and fixes the asymmetry.

The impact of signaling on market job selection was demonstrated through an example in a 1973 study by Spence. In his opinion, he gently alludes to Spence's own skepticism about his skills. However, his abilities are immediately displayed, and the article's investment is immediately clear. Spence (1973) asserts that the hiring process is comparable to playing the lottery in that it is an investment. He claims that the wage is a representation of what an employer is prepared to pay to be represented in the lottery. The accuracy of your investment is unknown until the outcome is known, much like when you wait for the lottery's winning number. A better understanding of these uncertainties can be gained by looking at observable personal characteristics known as Signals. Spence (1973), asserts that some qualities are changeable and that not all characteristics are fixed. Indices are unchangeable data points that include traits like gender, race, sex, and other unchangeable characteristics. An employer's beliefs are shaped by shifting conditional probability distributions, which include signals and indices (Spence, 1973).

As Spence explains in the article, the employer's risk is balanced during this hiring process, and all signals and indices are regarded as neutral. However, these indicators are expensive and subject to influence. It is challenging to distinguish between applicants unless the costs of signaling are inversely correlated with their capacity for productivity, claims Spence (1973). Consider a college degree, for example. As more and more people invest in it, the signal is becoming less distinctive. Paradoxically,this makes it challenging to distinguish between job applicants. However, when employers receive the signals that job applicants are sending, a balance is reached.

According to Spence's (2002) earlier job-market signaling model, when (potential) employees obtain educational credentials and their informational value, they are sending a signal to their employer about their capability and ability level. The employer believes the credentials are accurate and can therefore reliably distinguish between employees with low and high ability. A useful tool for comprehending how people or organizations act when they have different amounts of information is signaling theory.Usually, one party must choose how to communicate information, and the other must choose how to understandit. Awell-knownandsignificant concept inmanymanagement scienceliteraturesissignaling theory. The goal of signaling theory is to reduce the disparity in information between two parties (Spence, 2002). He developed his theory by using the labor market to show how a candidate'seducational background can act as a signal. He believes that prospective employers don't know much about the quality of job candidates. In order to prove their abilities and competence, prospective employees frequently seek education, which helps to rectify the information gap between them and possible employers. The fundamental problem of communication is addressed by signaling theory.The signaling theory is pertinent to this research because it draws attention to the problem of information asymmetry that may occur when financial statements are taken for granted to be imaginative. Users would therefore require a trustworthy and transparent financial statement that appropriately depicts the entity's financial performance and status in order to make well-informed and sensible investmentchoices.

EmpiricalReview

Anuar, Jais and Tinggi (2021), investigated the effect of non-current assets on theperformance of firms. The study was carried out in Malaysia. The study population was listed construction firms in Malaysia. Thestudywas for a periodof eight years spanningfrom2011 to2017. Non-current assets was measured by fixed asset turnover, asset tangibility and total asset turnover, while financial performance was indicated by return on assets and return on equity. The study employed descriptive statistics, Pearson correlation, and panel ordinary least squares multiple regression for analysis. The results showed that fixed asset turnover, asset tangibility, and total asset turnover had positive but insignificant effects on financial performance.

Nangih(2021), examinedtheimpact ofthefinancingmix on market potentialofquotedfirms inNigeria. The study population was oil and gas companies in Nigeria. The study employed total equity, long-term debt, and short-termdebt as dimensions of thefinancing mix whilebook valueper sharewas used as the measure of market potential. The period of the study was from 2013 to 2018. Regression methodology was usedtocarryout theanalysis andresults showed favourableandsignificant effect onbook valueper share.

Igbru and Onuora (2020), investigated the factors that affect the tangibility of small companies in Nigeria. The study used leverage, firm age and ROA as proxies of the independent variable. The OLS regression model was used to test three hypotheses that were developed to direct the inquiry. The study used an ex post facto design, which means that the data camefromthesampled firms 2014–2018 annual financial statements. The results concluded that that firm performance had a positive but non-significant impact on assets tangibility.

Nangih and Onuora (2020), examined the effect of capital intensity on profitability. The studypopulation was quoted oil and gas firms in Nigeria. The study proxy capital intensity by property, plant and equipment, intangible non-current assets, non-current prepayments as well as investment property. On the other hand, firm performance was measured by profit margin. Analysis were carried out using regression method and the results showed that all the dimensions of capital intensity had significant but positive impacts on profit margin; but not intangible non-current assets.

Qureshi and Siddiqui (2020), studied the nexus between intangibleassets firms' market value. Thestudy employed a total of eighty firms. Data were sourced for the period of 2015 to 2018 and was analyzed using regression analysis was used. The findings indicated that intangible assets impact return on assets significantly.

Nangih, Obuah, and Kumah (2020), evaluated the effect of current assets on stock performance.. The population was oil and gas firms in Nigeria. Theresearch design used in the study was ex post facto. To choose five (5) listed oil and gas companies on the Nigerian Stock Exchange (NSE), a judgmental sampling technique was employed. Data sourced from their financials and analyzed using multiple regression indicated that current assets impacted earnings per share.

Nangih, Turakpe, and Davies (2020), used Guaranty Trust Bank Plc as a case study to investigate the nexus between intangibles and profitability. Data was sourced fromthefinancials of thebank from2009 to 2019 and analyzed using regression statistics. The results showed that goodwill and computersoftware costs influenced ROA of the bank.

Murat and Derya (2019) examined intangible assets and growth of Turkish companies. The study employed quasi experimental design and sourced data from 2005 to 2013 from the sampled firms. Data collected wereanalyzed with regression tool. Theresult indicated that growth rates arepositively related with intangible assets.

Oeta, Kiai, and Muchiri (2019), studied the nexus between capital intensity and firm performance. The population was listed firms in Kenya. The period was from 2010 to 2017. Descriptive statistics was adopted in the study and analysis was done using regression. The results revealed that the independent variables had favourable effect on performance.

MwanikandJob (2018)assessedtheeffect ofasset structureonfirmvalueoflistedcompanies inKenya. The study measured firm value using book value and assets structure is measured by property, plants,and equipment to total assets and current assets to total assets. Data collected was analyzed using ordinary least square regression analysis. The results indicate that asset property plant & equipment structure influenced book value significantly whereas current assets have little bearing on firm value.

Berkman et al. (2018), investigated the nexus between cyber-security and market value. The study was carried out in the US. The questionnaire was designed and data sourced from respondents via primary sources. Data sourced were analyzed using SSPS. The findings showed a strong association between cyber security and firm value.

Nabil (2018) looks into howfixed assets affect thebottomlineof businesses in Pakistan's sugar, cement, and textile sectors. Regression analysis was used to show how fixed assets affect company profitability using data gathered from a sample of three industries (textiles, cement, and sugar) between 2010 and 2017. The results show a strong relationship between the independent factors (fixed assets) and the dependent variable (net profit).

Irungu, Muturi, et al (2018), examined the performance and asset tangibility of companies listed on the Nairobi Securities Exchange in Kenya. The financial statements were used to gather the panel data, which was then analyzed using an analysis of variance and a dynamic panel data regression model. The results indicate that asset tangibility and financial performance have a positive and significant relationship. Additionally, the performance of quoted companies on the Nairobi Securities Exchange in Kenya is significantly impacted by tangible assets, whereas intangible assets have a negligible negative impact.

RESEARCHMETHODOLOGY

ResearchDesign: The ex post facto approach was chosen in an effort to fulfill thefundamental goals of this study. The choice of the design is the fact that the data is already available.

Populationofthe Study: Thestudy's population comprises all listed deposit money banks that trade on theNigerian ExchangeGroup floor.Therearesixteen (16) of themas at December 2023.To learn more, see the appendix.

Sample Size and Sampling Technique: Purposive sampling techniques were used to determine the study's sample size based on the information that was available. Based on companies that had complete andaccessibledataonthestudy'svariables,thesamplesizewaspurposivelychosen.Thosewho

provided insufficient details about the variables used in the study during the period under review were not included .the same pupolation served as sample size

Sources ofData: This researchusedsecondarydata.Thetypeof data used was thepanel data set, which consists of cross-sectional and time series data. The firms chosen for this study provided their annual reports as the source of the data.

Method of Data Collection: The study's data came from secondary sources, namely the financial statements andannual reports of thechosenbanks for the eleven-year periodbetween2013 and2023.the data used where collected analyist.

Method of Data Analysis: Both descriptive, correlation and panel regression methods were used to analyze the data that the researcher had gathered. The application of tools like the mean and standard deviation, among others, to assess the fundamental properties of the data is the focus of descriptive statistics. To find out if there is multi-colinearity between the explanatory variables, the correlation analysis was also performed.However, in order to analyze the cause-and-effect relationship between the variables under investigation, the Panel Regression Model was utilized. The researcher will accept the null hypothesis and reject the alternative hypothesis if the probability value is greater than the intended level of significance, which is 0.05. If not, the alternative is accepted and the null hypothesis is rejected by the researcher. The required statistics were calculated using the Econometric Views (E-views) program.

Model Specification: The model utilized in this investigation was modified from the Nangih andOnuora (2020) study. The following is how their model represented the relationship between a set of explanatory variables and firm performance.

Model1

$$EPS=\beta_0+\beta_1 INTG_{it}+\mu$$

Model2

$$MPS=\beta_0+\beta_1 INTG_{it}+\mu$$

Where:

EPS = Earnings per share;
MPS=MarketPriceperShare
INTG=Intangibleassetsintensity; $\beta 0$
= Constant;
β_1=Coefficientoftheregressionequation; μ =
Error term;
i=Cross-sectionoffirms; t
= Time period

MeasurementofVariables

EPS– Earnings per share is defined as profit after tax divided by total number of ordinary share

MPS-Market priceper shareisdefinedasthecurrent priceofthesharesofthefirmsasat year end.

INTG- This represents the amount of intangible assets employed per statement of financial position for the year

DATAANALYSISANDDISCUSSIONOFFINDINGS

Data Analysis

DescriptiveStatistics

Descriptive statistics provide information concerning the basic characteristics of the data, such as the mean, standard deviation, skewedness, kurtosis and normality, etc. They also enable the comparative assessment of the variables under study. The result of the descriptive statistic is shown in table 1.

Table1:DescriptiveStatistics

	INTG	EPS	MPS
Mean	0.004093	2.572545	9.557000
Median	0.002182	1.540000	6.275000
Maximum	0.043082	19.07000	40.75000
Minimum	0.000000	-5.450000	0.500000
Std.Dev.	0.007257	3.608879	9.926335
Skewness	4.275450	2.535306	1.386181
Kurtosis	21.45964	11.30019	4.019320
Jarque-Bera	1896.933	433.6025	39.98962
Probability	0.000000	0.000000	0.000000
Sum	0.450254	282.9800	1051.270
SumSq.Dev.	0.005740	1419.617	10740.00
Observations	150	150	150

Source:Author'sComputation

Table 1 presents the descriptive statistics of the study variables—intangible non-current assets intensity (INTG), earnings per share (EPS), and market price per share (MPS). The mean values indicate that, on average, banks recorded low intangible asset intensity (0.0041), moderate earnings (2.57), and anaverage market price of 9.56 per share. The high standard deviations, particularly for EPS (3.61) and MPS (9.93), reveal substantial variability among the banks. Positive skewness values show that all variables areright-skewed, implyingthat most observations fallbelowthemean.Similarly, highkurtosis andsignificant Jarque-Bera probabilities ($p < 0.05$) confirm non-normality, suggesting data distributions are peaked and asymmetric.

CorrelationTest

The test for correlation shows the degree of association among the variables employed in the study. It also gives an indication of the existence or non-existence of multi-colinearity among the independent variables. The correlation statistics for the variables in the model employed in this study is shown intable 2 below.

Table2:CorrelationMatrix

	INTG	EPS	MPS
INTG	1.000000		
EPS	-0.131006	1.000000	
MPS	-0.142808	0.801114	1.000000

Source:Author'sComputation

Table 2 presents the correlation matrix showing the relationship among intangible non-current assets intensity (INTG), earnings per share (EPS), and market price per share (MPS). The correlation between INTG and EPS is negative (-0.1310), indicating a weak inverse relationship, suggesting that higher intangible asset intensity is slightly associated with lower earnings per share. Similarly, INTG and MPS showaweaknegativecorrelation(-0.1428),implyingthatincreasesinintangibleassetshavea

marginallyadverseeffect on market prices. However, EPS andMPS exhibit a strongpositivecorrelation (0.8011), suggesting that higher earnings per share correspond with higher market prices. The low correlations among independent variables indicate no multicollinearity problem.

MultipleRegressionTest

The multiple regression technique was employed to determine the functional relationships existing betweenthevariables inthemodelformulatedinthis study. Tothis end, thepanelleast squareregression technique was employed in determining cause and effect relationships existing among the variables inthe model. Specifically, the fixed effect panel regression tests were carried out in a bid to vividly determinethe effect of the various capital intensityonthestockreturns indicators, as showninTables 3.

FixedandRandomEffect(Hausman)Test

To examine the effect of the independent variable on the dependent variables we used the fixed/random effect panel regression technique. Thepanel summary result of multipleregression analyses is presented and well discussed below. Before that, the study takes into cognizance the fact that there could be homogeneity among the various data samples, hence the need to choose between fixed or random effect models. To achieve this, Hausman Test is employed to select between fixed and random effect that isbest to be adopted in the study. The Hausman's test specifies the random effects model as the null hypothesis while the fixed effect is the alternative hypothesis. The decision rule is to reject the null hypotheses at 5%level of significanceif theprobability valueof thecomputed chi-squarestatistic is less than or equal to 0.05, and vice versa. Details of the results for each of the models (equations) are presented in Table 3.

Table3:HausmanTest

	Chi-Sq.Statistic	Prob.
Model1	2.538458	0.00390
Model2	0.390006	0.04423

Source:Author'sComputation

In table 4.3, the Chi-Square statistics are given as: 2.538458 and 0.00390 with associated probability values of 0.4684 and 0.04423 respectively. Given that theprobability values are morethan 0.05, thenull hypotheses are rejected, thus, the results indicate that the random effects model is most appropriate for estimating both models.

Table4:RandomEffectsPanelRegressionTest(Model 1)
DependentVariable:EPS
Method:PanelEGLS(Cross-sectionrandomeffects)
Date:01/24/25Time:09:36
Sample:20132023

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.502466	1.059052	5.195651	0.0000
INTG	-44.10416	42.90073	-1.028051	0.3063

WeightedStatistics			
R-squared	0.162053	Meandependent var	0.660683
AdjustedR-squared	0.145576	S.D.dependentvar	1.937540
S.E.ofregression	2.661885	Sumsquaredresid	641.0769
F-statistic	5.953427	Durbin-Watsonstat	1.348546
Prob(F-statistic)	0.000441		

Source:Author'sComputation

Table 4 presents the random effects regression results for Model 1, with earnings per share (EPS) as the dependent variable. The coefficient of intangible non-current assets intensity (INTG) is negative (-44.1042) and statistically insignificant (p = 0.3063), indicating that intangible assets have no significant effect onEPS of listed moneydeposit banks inNigeria. TheR-squared value(0.1621) implies that about 16.2% of variations in EPS are explained by INTG. The F-statistic (5.9534, p = 0.0004) shows overall model significance, while the Durbin-Watson statistic (1.35) suggests mild positive autocorrelation.

Table5:RandomEffectsPanelRegressionTest(Model 2)
DependentVariable:MPS
Method:PanelEGLS(Cross-sectionrandomeffects)
Date:01/24/25Time:09:41
Sample:20132023

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.76370	3.617244	3.528571	0.0006
INTG	-82.65005	50.48713	-1.637052	0.1046

WeightedStatistics

R-squared	0.097260	Meandependent var	1.129951
AdjustedR-squared	0.064520	S.D.dependentvar	4.359675
S.E.ofregression	4.278546	Sumsquaredresid	1930.321
F-statistic	2.742530	Durbin-Watsonstat	1.179152
Prob(F-statistic)	0.004352		

Source:Author'sComputation

Table 5 presents the random effects regression results for Model 2, where marketprice per share (MPS) is thedependent variable. Thecoefficient of intangible non-current assets intensity(INTG) is negative(-82.6501) and statistically insignificant (p = 0.1046), indicating that intangible assets do not have a significant impact on the market price of listed money deposit banks in Nigeria. The R-squared value (0.0973)showsthatabout9.7%ofvariationsinMPSareexplainedbyINTG.TheF-statistic(2.7425,p = 0.0044) indicates the model is overall significant, while the Durbin-Watson statistic (1.18) suggests slight positive autocorrelation.

DiscussionofFindings

Theresult of thetests, as shown in Tables 4.4-4.5, indicated t-statistics and p-values (in parenthesis) of -1.028051 (0.3063) and -1.637052 (0.1046). Since the p-values of t-statistics are greater than 0.05, we accept the null hypotheses and reject the alternative hypotheses.The negative coefficient values of -1.02805 and -1.637052 respectively revealed that Intangible negatively influenced stock returns, the probability values revealed that the effect of Intangible on stock returns of listed banks in Nigeria was statistically insignificant at 5% level. Based on the analysis result, the study rejects the alternate hypotheses and accepts the null hypotheses, it therefore concludes that, Intangible assets intensity have negative and insignificant effect on stock returns of banks in Nigeria.Also from the results, the relationship between intangible asset intensity and all the dependent variables is also negative but insignificant; deviating also from the theoretically expectation. This implies that increase in intangible assets investment willresult ina decreaseanincreaseinstockreturns.Theseresults areinconsistent with those of the findings of Zhang (2017) and Gamayuni (2015), who concluded that intangibles impacted ROA and firm value significantly.

ConclusionandRecommendation

This study was undertaken to examine the effect of intangible resources as performance determinants of listed money deposit banks in Nigeria. In line with the objectives of the study, hypothesis was formulated. The study also explores conceptual, theoretical and empirical literatures on the relationship between the various capital intensity dimensions and stock returns. The study also utilizes data for the thirteen-yearperiodfrom2013to2023,whichareanalyzedusingthefixedeffectpanelregression

technique. However, theresults reveal that intangibleassets intensityhadledtoadversebut insignificant impact on MPS and EPS. Thus, increasing levels of investments in intangible assets intensity would negatively impact stock returns, and also not significant. The study also conclude that intangible assets intensity has negative effects on the dependent variables but not significant. Thus, increasing levels of investments in intangible assets intensity will not stimulate stock returns. Hence, due the findings of the study, it was recommended that intangible assets intensity should not be encouraged because it has negative effect on both EPS and MPS and the effect is not significant.Also,banks should improve their strategic management, recognition, andreportingofintangibleresourcessuchasbrandvalue, intellectual capital, and software assets to strengthen their performance impact and ensure sustainable growth.

ContributionstoKnowledge

It is believed that this study has contributed to the already existing literature on the subject matter. It is alsobelieved that it has providedan empiricalproveand evidencethat maybeusefulfor further research in the area of capital intensity and stock returns nexus. Specifically; it has filled the gap in literature byproviding the current and verifiable data from published annual reports of listed banks in Nigeria, to empirically reveal the effect of capital intensity and stock returns.

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