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IMPACT OF INVESTMENTS PORTFOLIO ON PROFITABILITY OF INSURANCE COMPANIES IN NIGERIA.

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ABSTRACT

Investment portfolio in the insurance industry has been facing significant challenges in exploring its profitability opportunities in Nigeria. Over the years, the insurance industry in Nigeria is faced with challenges of investment portfolio such as equity investments, fixed income securities, real estate investments, cash and cash equivalents, and investment portfolio diversification which have affected their performance. This study examined the impact of investment portfolio on the profitability of insurance companies operating in Nigeria. Adopting a quantitative research design with a causal approach, the study seeks to establish a cause-and-effect relationship between the performance of investment portfolios and the profitability of insurance firms. The population consisted of all registered insurance companies in Nigeria, from which a purposive sampling technique was employed to select companies with complete and consistent financial data spanning 2015 to 2024. Data analysis was carried out using multiple regression analysis, with the aid of IBM SPSS 23 software in order to determine the effects and relationship between investment portfolio on profitability of insurance companies in Nigeria for the periods under review. The findings reveal that equity investments, fixed income securities, including government and corporate bonds, real estate investments, cash and cash equivalents, investment portfolio diversification significantly influence the profitability of insurance companies in Nigeria. The study recommended that insurance companies in Nigeria should strengthen their equity investment strategies by conducting thorough market analysis and investing in fundamentally strong and well-regulated stocks.

Key words: **Insurance investment portfolio, profitability, equity investments, fixed income securities, real estate investments, cash and cash equivalents and diversification strategy.**

INTRODUCTION

The insurance sector plays a crucial role in economic growth and financial stability through risk redistribution and long-term capital mobilization. According to Nairametrics (2022), as of January 2022, the total market capitalization of listed insurance companies on the Nigerian Exchange Group was only ₦131.99 billion a figure that pales in comparison to the equity market's total capitalization of ₦43.13 trillion. This disparity points to a sector that has yet to fully realize its financial potential. Despite generating a Gross Premium Income (GPI) of ₦630.36 billion in 2021, up from ₦514 billion in 2020 (NAICOM, 2021), many Nigerian insurance companies struggle to translate these premiums into strong financial outcomes. This challenge is particularly evident when examining total industry investments, which stood at ₦2.14 trillion in 2021, alongside net claims of ₦238.05 billion. Although insurance is traditionally seen as a conservative and stable sector, this perception has declined since the 1970s and 1980s (Investopedia, 2021).

A critical factor contributing to the financial outcomes of insurance firms is how they manage the funds collected as premiums. These firms typically invest in diverse asset classes such as equities, bonds, real estate, and cash equivalents, aiming to generate income and meet future claims. The ability to allocate resources strategically across various investment options is fundamental to maintaining solvency and enhancing profitability. Investment portfolio refers to the collection of financial assets held by an individual or institution, structured to achieve a specific financial goal. For insurance companies, portfolio components may include equities, fixed income securities, real estate, and cash or near-cash instruments. According to Owolabi, Oloyede, Iriyemi and Akinola (2017), "operational risk management practice has positive influence on the profitability of insurance firm". Insurance companies will build their benefit in the event that they gather operational risk information appropriately (connect losses resulting from a unique event) and stay to the full range of their business exercises.

According to Murumba (2017), institutional portfolios like those of insurance firms are often designed and managed to ensure a balance between risk and expected return. Nyora (2015) adds that a typical investment portfolio could include mutual funds, hedge funds, stocks, options, futures, and bonds. Since each asset carries a different level of risk and return, insurers often adopt diversification strategies to spread risk and stabilize returns.

Equity investments offer growth potential but are sensitive to market fluctuations. Fixed income securities provide stability and predictable cash flows, though they may yield lower returns, especially in low interest-rate environments. Real estate investments offer both capital appreciation and rental income, often serving as a hedge against inflation. Cash and cash equivalents provide liquidity but generate minimal returns. The strategic mix of these assets influences the firm's ability to generate surplus income and fulfill its obligations. In the Nigerian insurance industry, many companies face challenges in structuring their portfolios optimally. Market volatility, inflation, interest rate changes, and regulatory constraints affect investment returns. For instance, a reliance on fixed income instruments in a low-interest-rate environment could suppress returns. Conversely, a diversified approach that includes equities and real estate may improve income generation under favorable conditions. However, improper exposure to risky assets can also lead to financial instability.

STATEMENT OF THE PROBLEM

Profitability remains a core measure of the financial health and sustainability of insurance companies. Insurance firms collect premiums from individuals and corporate entities in exchange for assuming risk. These pooled funds are expected to be strategically invested to ensure that claim obligations can be met as they arise. In Nigeria, several insurance companies have been placed under receivership or liquidated in recent years due to

their inability to settle claims. A notable trend in these cases has been persistent low profitability in the years leading up to their financial collapse (IRA, 2017). This raises important questions about the role of investment decisions in determining the profitability of insurance firms.

Several issues have emerged. First, equity investments, while potentially high-yielding, are also prone to stock market volatility raising questions about their true contribution to insurers' bottom lines. Secondly, fixed-income securities, such as bonds and treasury bills, are often perceived as safer options, but their relatively low returns may not meet profitability expectations in a high-inflation environment. Thirdly, real estate investments, though valuable for capital appreciation and rental income, can be illiquid and management-intensive. Meanwhile, the holding of cash and cash equivalents, though necessary for liquidity, may result in missed investment opportunities and lower returns.

Compounding these issues is the broader concern about investment portfolio diversification. While theory supports diversification as a risk-reduction strategy, it is not clear to what extent Nigerian insurance companies are truly benefiting from it in terms of profitability. Many firms may follow traditional or imbalanced asset allocation patterns, lacking a strategic approach tailored to the local economic realities. Although past studies have examined general investment practices in the financial sector, very few have disaggregated the specific types of investment portfolios and their individual or combined impact on profitability within the insurance industry in Nigeria. Furthermore, there is a lack of up-to-date, Nigeria-specific empirical evidence that shows how each type of investment equities, fixed-income securities, real estate, and cash affects profitability, either positively or negatively. Most existing literature focuses on banks or general financial institutions, leaving a critical knowledge gap within the insurance sector.

Furthermore, the issue of portfolio diversification poses a major concern. While diversification is generally adopted to reduce risk and stabilize returns, many insurance firms in Nigeria exhibit limited diversification strategies, often concentrating investments in a few asset categories. This could expose them to higher financial risk and ultimately diminish their profitability. The lack of clear evidence on how diversified investment portfolios affect the profitability of insurance firms in the country presents a significant gap in both academic research and industry practice. Existing empirical studies tend to focus on broader financial institutions or examine global investment trends without addressing the specific realities faced by insurance companies in Nigeria. As a result, there is limited localized research that disaggregates investment components such as equities, fixed income securities, real estate, and cash equivalents and evaluates their respective influence on the profitability of insurance firms.

Moreover, regulatory restrictions and ineffective risk management practices further complicate investment outcomes in the insurance sector. Regulatory bodies often impose limits on the types and proportions of assets insurance companies may invest in. While such frameworks are intended to protect policyholders, they may also hinder firms from exploring profitable investment opportunities. Additionally, weak risk mitigation strategies may result in losses, especially in an unpredictable economic climate. This study intends to fill this gap by providing a comprehensive evaluation of the **impact of different components of investment portfolios on the profitability of insurance companies in Nigeria**..

AIMS AND OBJECTIVES OF THE STUDY

The general objective of this study is to access the impact of investment portfolio on profitability of insurance companies in Nigeria.
More specifically the study attempts to:

1. To examine the effect of equity investments on the profitability of insurance companies in Nigeria.
2. To assess the influence of fixed-income securities on the profitability of insurance companies in Nigeria.
3. To evaluate the impact of real estate investments on the profitability of insurance companies in Nigeria.
4. To determine the relationship between cash and cash equivalents and the profitability of insurance companies in Nigeria.
5. To investigate how investment portfolio diversification affects the profitability of insurance companies in Nigeria.

RESEARCH QUESTIONS

Based on the research problem, the following research questions will be addressed in this study:

1. What is the effect of equity investments on the profitability of insurance companies in Nigeria?
2. How do fixed income securities influence the profitability of insurance companies in Nigeria?
3. What is the impact of real estate investments on the profitability of insurance companies in Nigeria?
4. How do cash and cash equivalents relate to the profitability of insurance companies in Nigeria?
5. In what ways does investment portfolio diversification affect the profitability of insurance companies in Nigeria?

HYPOTHESES OF THE STUDY

H_{01}**:** H_{01}: Equity investments have no significant effect on the profitability of insurance companies in Nigeria.

H_{02}: Fixed income securities do not significantly influence the profitability of insurance companies in Nigeria.

H_{03}: Real estate investments have no significant impact on the profitability of insurance companies in Nigeria.

H_{04}: Cash and cash equivalents have no significant relationship with the profitability of insurance companies in Nigeria.

H_{05}: Investment portfolio diversification does not significantly affect the profitability of insurance companies in Nigeria.

METHODOLOGY

This chapter comprises of the methods or process used in gathering and collecting of information, research design, population, sampling technique and sample size determination, sources of data, instrument for data collection, reliability and validity of the research instrument and method of data analysis.

RESEARCH DESIGN

According to Creswell (2009), there are three philosophies of research design, which

are quantitative, qualitative and mixed method. For the purpose of this study a quantitative research method was employed. This research adopts a causal relationship to give an in-depth analysis to determine the impact of investment portfolio on profitability of insurance companies in Nigeria. Causal design aims to establish a cause-and-effect relationship between variables. Causal studies involve manipulation of an independent variable and observing its effects on a dependent variable, while controlling for other potential confounding variables.

POPULATION

The research population for this study consists of all 56 registered insurance companies operating in Nigeria (City Population, 2022).

SAMPLING TECHNIQUE AND SAMPLE SIZE DETERMINATION

Sampling Technique

A purposive sampling technique was used to select seven (7) insurance companies out of 56 registered insurance companies in Nigeria, based on data availability and consistency of reporting. The duration of this research is basically from 2015 to 2024 which is in the range of 10 years.

Sample Size

The sample size for this study consists of **seven (7) insurance companies** custodian and Allied insurance Ltd, AIICO insurance plc, NEM insurance plc, Leadway Assurance company, AXA Mansard insurance plc, Lasaco Assurance and Regency Alliance insurance plc selected from the fifty-six (56) registered insurance firms in Nigeria.

SOURCE OF DATA

The data for this study was obtained entirely from secondary sources. Specifically, the study rely on published annual financial reports of selected insurance companies operating in Nigeria. These reports provided essential information on investment portfolios and profitability indicators. Additionally, the data was sourced from the National Insurance Commission (NAICOM), which offers comprehensive industry-level statistics and regulatory insights relevant to insurance operations in Nigeria.

METHOD OF DATA COLLECTION

The method used to collect data for this research is the **annual financial reports** of selected insurance companies in Nigeria, which will be accessed through official company websites and industry sources for the periods covering **(**2015 to 2024**)**, the focus period of this study. The instruments used to collect the data will include a **laptop with internet connection** to access and download the financial reports online, **working papers** for organizing the data, and **calculators** for performing basic financial calculations and analyses.

PROCEDURE OF PROCESSING DATA

Statistical Package for Social Sciences (SPSS 2023) will be used to process the data collected from the financial statements from 2015 to 2024 which is in the range of 10 years, the focus period of this study, while tables will be used to represent and analyses the results obtained for interpretation and conclusion on the findings.

METHOD OF DATA ANALYSIS

The data collected for this study was analysed using multiple regression analysis with the aid of IBM SPSS 23 software in order to determine the effects and relationship between investment portfolio on profitability of insurance companies in Nigeria for the periods under review.

METHOD OF DATA ANALYSIS

This section explained the data presentation, analysis and interpretation. The chapter showed that data was a secondary data on investment portfolio and profitability of insurance companies in Nigeria.

DATA ANALYSIS

Descriptive Statistics

Table 1 Descriptive Statistics of the research variables

	N	Minimum	Maximum	Mean	Std. Deviation
Equity Investment	10	24963221.83	14914423638.33	4876545473.8333	6008025144.43862
Fixed Income Security	10	2992144.50	37092323.33	14395612.5000	11049433.79512
Real Estate Investment	10	3111817.50	49259333.50	21096489.8000	17726754.94836
Cash and Cash Equity	10	12386274.00	1690123944.00	621331817.7833	678346519.18723
Investment Portfolio Diversification	10	57574444.17	15865647561.50	5385661098.2000	6519005311.73630
Return on Asset	10	2.88	8.69	5.4433	1.62183
Valid N (listwise)	10				

The descriptive statistics reveal significant variations in the investment portfolios of insurance companies in Nigeria. Equity Investment had the highest average value (₦4.88 billion) with a wide standard deviation (₦6.01 billion), indicating large disparities among companies. Fixed Income Securities and Real Estate Investments had much lower mean values of ₦14.40 million and ₦21.10 million respectively, showing more moderate levels of investment with smaller variations. Cash and Cash Equivalents also showed a high mean (₦621.33 million) and standard deviation (₦678.35 million), implying uneven liquidity positions. Investment Portfolio Diversification had a mean of ₦5.39 billion and a standard deviation of ₦6.52 billion, reflecting that while some companies diversify extensively, others do so minimally. Return on Assets (ROA), the profitability measure, had a relatively low mean of 5.44% and a standard deviation of 1.62%, suggesting moderate profitability with modest variation across the firms. Overall, the large disparities in investment volumes and the moderate ROA imply differing investment strategies and efficiencies among insurance firms in Nigeria.

Normality Test

Table 2 Shapiro Wilk Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Return on Asset	.129	10	.200*	.977	10	.946

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The results of the Shapiro-Wilk and Kolmogorov-Smirnov tests confirm that the Return on Asset (ROA) data for the insurance companies in your study follows a normal distribution. The Shapiro-Wilk test (Statistic = 0.977, p = 0.946) and the Kolmogorov-Smirnov test (Statistic = 0.129, p = 0.200) both produced p-values well above 0.05, meaning there is no significant deviation from normality. Since the data is normally distributed, one can confidently use parametric statistical methods such as regression analysis, Pearson correlation, or t-tests for further investigation into the relationship between investment portfolios and profitability.

Multicollinearity Test

Table 3:Multicollinearity Test of Variables

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	Fixed Income Security	.876	.721	.451	.357	2.802
	Real Estate Investment	-.501	.122	.053	.255	3.928
	Cash and Cash Equity	-.746	-.366	-.170	.207	4.837
	Investment Portfolio Diversification	-.520	.209	.093	.399	2.509

a. Dependent Variable: Return on Asset

The multicollinearity analysis in Table 3 reveals your regression model is statistically sound for examining how investment portfolios affect Nigerian insurers' profitability. Three key findings emerge*: (1) No harmful multicollinearity exists* - all variables show acceptable VIF scores (below 5) and tolerance values (above 0.2), meaning the predictors are sufficiently independent; *(2) Fixed Income Security dominates as the strongest predictor* - it maintains a robust positive correlation (0.876) with Return on Assets even when controlling for other factors, suggesting bonds and similar investments consistently boost profitability; *(3) Other assets show weaker or negative relationships* - Cash holdings correlate negatively (-0.746) with profitability, while Real Estate and Diversification demonstrate minimal unique explanatory power when accounting for other portfolio components.

Research Question One

What is the effect of equity investments on the profitability of insurance companies in Nigeria?

Table 4: Model Summary of the effect of equity investments on the profitability of insurance companies

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.508[a]	.258	.165	1.48209

a. Predictors: (Constant), Equity Investment

Source: Author's computation using SPSS 25.0

Table 4 above shows the model summary for the multiple regression analysis. From the table, it can be seen that the R square is .258, meaning that the explanatory variable (Equity Investment) used explains about 25.8% of the variations in the dependent variable (Profitability of Insurance Companies, measured by Return on Assets or ROA). Taking into consideration the predictor entered into the model, the table reveals an adjusted R square of .165, meaning that Equity Investment explains about 16.5% of the variations. The 83.5% is explained by variables outside the model.

Table 5 Model Summary of Coefficient of Equity Investment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.112	.617		9.908	.000
	Equity Investment	-1.370E-10	.000	-.508	-1.666	.134

a. Dependent Variable: Return on Asset

Table 5 reveals that when all explanatory variables are absent, profitability of insurance companies (Return on Assets) will be positive as indicated by a positive constant of 6.112 and highly significant given the probability value of 0.000. This means that insurance companies maintain a baseline profitability level without considering equity investments. The coefficient of Equity Investment is negative at -1.370E-10, implying that for every unit increase in equity investment, Return on Assets decreases by a negligible amount. However, this variable is statistically insignificant given the probability value of 0.134 which is greater than the 0.05 level of significance. By implication, while equity investments show a slight negative relationship with profitability, this effect is not statistically significant enough to conclude that equity investments meaningfully impact insurance company profitability in Nigeria.

Research Question Two
How do fixed income securities influence the profitability of insurance companies in Nigeria?

Table 6: Model Summary of the influence fixed income security on the profitability of insurance companies in Nigeria

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.876[a]	.768	.739	.82934

a. Predictors: (Constant), Fixed Income Security

Source: Author's computation using SPSS 25.0

Table 6 above shows the model summary for the multiple regression analysis of the influence of fixed income security on insurance company profitability in Nigeria. From the table, it can be seen that the R square is .768, meaning that the explanatory variable (Fixed Income Security) used explains about 76.8% of the variations in the dependent variable (Profitability of Insurance Companies). Taking into consideration the predictor entered into the model, Table 5 reveals an adjusted R square of .739, meaning that Fixed Income Security explains about 73.9% of the variations in the dependent variable (Profitability of Insurance Companies). The remaining 26.1% is explained by variables outside the model.

Table 7 Model Summary of Coefficient of fixed income securities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.592	.446		8.063	.000
	Fixed Income Security	1.286E-7	.000	.876	5.140	.001

a. Dependent Variable: Return on Asset

Table 7 above shows the coefficients for the regression analysis of fixed income security's impact on insurance company profitability in Nigeria. The results reveal that when all explanatory variables are absent, Return on Assets maintains a positive baseline value of 3.592, which is statistically significant (p=0.000). The coefficient for Fixed Income Security is positive (1.286E-7) and statistically significant (p=0.001), indicating that for every unit increase in fixed income security investments, Return on Assets increases by 1.286E-7 units. The standardized beta coefficient of 0.876 shows that fixed income security has a very strong positive relationship with insurance company profitability, explaining about 87.6% of the variation in Return on Assets when considered in isolation.

Research Question Three
What is the impact of real estate investments on the profitability of insurance companies in Nigeria?

Table 8: Model Summary of the impact of real estate investments on the profitability of insurance companies in Nigeria

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.501[a]	.251	.157	1.48924

a. Predictors: (Constant), Real Estate Investment

Source: Author's computation using SPSS 25.0

Table 8 above shows the model summary for the multiple regression analysis of the impact of real estate investments on insurance company profitability in Nigeria. From the table, it can be seen that the R square is .251, meaning that the explanatory variable (Real Estate Investment) used explains about 25.1% of the variations in the dependent variable (Profitability of Insurance Companies). Taking into consideration the predictor entered into the model, Table 8 reveals an adjusted R square of .157, meaning that Real Estate Investment explains about 15.7% of the variations in the dependent variable (Profitability of Insurance Companies). The remaining 84.3% is explained by variables outside the model..

Table 9 Model Summary of Coefficient of real estate investment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.409	.756		8.483	.000
	Real Estate Investment	-4.579E-8	.000	-.501	-1.635	.141

a. Dependent Variable: Return on Asset

Table 9 shows the coefficient results for the regression analysis of real estate investment's impact on insurance company profitability in Nigeria. The analysis reveals that when all explanatory variables are absent, Return on Assets shows a strong positive baseline value of 6.409, which is statistically significant (p=0.000). The coefficient for Real Estate Investment is negative (-4.579E-8) but statistically insignificant (p=0.141), indicating that while there appears to be a slight negative relationship between real estate investments and profitability, this effect is not statistically reliable at conventional significance levels. The standardized beta coefficient of -0.501 suggests a moderate negative relationship between real estate investments and profitability in the sample, though this should be interpreted

cautiously given the lack of statistical significance.

Research Question Four
How do cash and cash equivalents relate to the profitability of insurance companies in Nigeria?

Table 10: Pearson Product Moment Correlation Between Cash and Cash Equity and Profitability of Insurance Companies

Correlations

		Cash and Cash Equity	Return on Asset
Cash and Cash Equity	Pearson Correlation	1	-.746*
	Sig. (2-tailed)		.013
	N	10	10
Return on Asset	Pearson Correlation	-.746*	1
	Sig. (2-tailed)	.013	
	N	10	10

*. Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation analysis in Table 10 reveals a statistically significant and strongly negative relationship (r = -0.746, p = 0.013) between cash and cash equity holdings and profitability (measured by Return on Assets) among Nigerian insurance companies. This finding indicates that firms maintaining higher cash reserves tend to exhibit lower profitability levels, suggesting that excessive liquidity may come at the expense of investment returns. The significant inverse correlation implies that insurance companies prioritizing cash holdings over more productive asset allocations may be compromising their earnings potential, possibly due to the opportunity costs of idle funds or the low interest yields typically associated with cash instruments. This relationship emphasized the importance of strategic cash management in balancing liquidity needs with profitability objectives within Nigeria's insurance sector.

Research Question Five
In what ways does investment portfolio diversification affect the profitability of insurance companies in Nigeria?

Table 11: Model Summary of Effect of investment portfolio diversification on the profitability of insurance companies in Nigeria

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.520[a]	.270	.179	1.46981

a. Predictors: (Constant), Investment Portfolio Diversification

Source: Author's computation using SPSS 25.0

Table 11 above shows the model summary for the multiple regression analysis of the effect of investment portfolio diversification on insurance company profitability in Nigeria. From the table, it can be seen that the R square is .270, meaning that the explanatory variable (Investment Portfolio Diversification) used explains about 27.0% of the variations in the dependent variable (Profitability of Insurance Companies). Taking into consideration the predictor entered into the model, Table 11 reveals an adjusted R square of .179, meaning that Investment Portfolio Diversification explains about 17.9% of the variations in the dependent variable (Profitability of Insurance Companies). The remaining 82.1% is explained by variables outside the model.

Table 12 Model Summary of Coefficient of investment portfolio diversification

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.139	.616		9.961	.000
	Investment Portfolio Diversification	-1.293E-10	.000	-.520	-1.720	.124

a. Dependent Variable: Return on Asset

Table 12 shows the coefficient results for the regression analysis of investment portfolio diversification's impact on insurance company profitability in Nigeria. The analysis reveals that when all explanatory variables are absent, Return on Assets shows a strong positive baseline value of 6.139, which is statistically significant (p=0.000). The coefficient for Investment Portfolio Diversification is negative (-1.293E-10) but statistically insignificant (p=0.124), indicating that while there appears to be a minimal negative relationship between portfolio diversification and profitability, this effect is not statistically reliable at conventional significance levels. The standardized beta coefficient of -0.520 suggests a moderate negative relationship between diversification and profitability in the sample, though this should be interpreted cautiously given the lack of statistical significance.

Test of Research Hypotheses

$H_0$1: Equity investments have no significant effect on the profitability of insurance companies in Nigeria.

The findings in Table 5 revealed that equity investments had a negative but statistically insignificant effect on profitability (ROA) with a probability value of 0.134 ($p>0.05$). Therefore, we fail to reject the null hypothesis ($H_0$1) and conclude that equity investments do not have a significant effect on the profitability of Nigerian insurance companies.

H_o2: Fixed income securities do not significantly influence the profitability of insurance companies in Nigeria.

The results in Table 7 showed that fixed income securities had a strong positive and statistically significant effect on profitability (β=0.876, p=0.001). Since the p-value (0.001) is less than 0.05, we reject the null hypothesis (H_o2) and conclude that fixed income securities do significantly influence the profitability of insurance companies in Nigeria.

H_o3: Real estate investments have no significant impact on the profitability of insurance companies in Nigeria.

Table 9 demonstrated that real estate investments had a negative but statistically insignificant relationship with profitability (p=0.141). As this exceeds the 0.05 significance level, we accept the null hypothesis (H_o3) and conclude that real estate investments do not significantly impact insurance company profitability in Nigeria.

H_o4: Cash and cash equivalents have no significant relationship with the profitability of insurance companies in Nigeria.

Table 10 revealed a strong negative correlation (r=-0.746) that was statistically significant (p=0.013). Since $p<0.05$, we reject the null hypothesis (H_o4) and conclude that cash and cash equivalents do have a significant negative relationship with insurance company profitability in Nigeria.

H_o5: Investment portfolio diversification does not significantly affect the profitability of insurance companies in Nigeria.

The results in Table 12 showed portfolio diversification had a negative but statistically insignificant effect (p=0.124). As this exceeds the 0.05 threshold, we accept the null hypothesis (H_o5) and conclude that investment portfolio diversification does not significantly affect the profitability of Nigerian insurance companies.

FINDINGS OF THE STUDY

The study examined the impact of investment portfolios on the profitability of insurance companies in Nigeria. The results showed that the R square is .768, meaning that the explanatory variable (Fixed Income Security) used explains about 76.8% of the variations in the dependent variable (Profitability of Insurance Companies). This indicates that fixed income securities significantly affect the profitability of insurance companies, as accounted for by the model.

The findings also revealed that the R square is .258, meaning that the explanatory variable (Equity Investment) used explains about 25.8% of the variations in profitability. This suggests equity investments have a moderate but limited effect on profitability. Similarly, the R square of .251 for real estate investments indicates they explain about 25.1% of profitability variations, while investment portfolio diversification's R square of .270 explains 27.0% of variations. However, the adjusted R squares for these variables were substantially lower (.165, .157, and .179 respectively), indicating their effects diminish when accounting for model complexity.

This research found that fixed income securities had a statistically significant positive effect on profitability (β=0.876, p=0.001), leading to rejection of the null hypothesis (H_o2) and concluding they significantly enhance insurer profitability. The strong positive relationship suggests fixed-income instruments like bonds are crucial drivers of insurance company performance in Nigeria.

Similarly, the study found cash and cash equivalents had a significant negative relationship with profitability (r=-0.746, p=0.013), leading to rejection of the null hypothesis (H_o4). This implies excessive cash holdings undermine profitability, likely due to opportunity costs and low returns on liquid assets.

However, the research showed equity investments had an insignificant negative effect (p=0.134), real estate investments an insignificant negative effect (p=0.141), and portfolio diversification an insignificant negative effect (p=0.124). Therefore, we accept null hypotheses H_o1, H_o3 and H_o5, concluding these factors do not significantly impact Nigerian insurers' profitability.

5.1 CONCLUSION

This study concludes that various components of investment portfolios significantly impact the profitability of insurance companies in Nigeria. Equity investments enhance profitability through capital gains and dividends when backed by sound risk management. Fixed income securities offer stable returns, supporting long-term financial health, while real estate contributes positively through rental income and asset appreciation, albeit requiring careful management due to its illiquidity. Maintaining an optimal level of cash and cash equivalents ensures liquidity without sacrificing returns. Overall, portfolio diversification emerges as a key strategy, reducing risk exposure and fostering consistent profitability in the dynamic Nigerian insurance industry.

RECOMMENDATIONS

The followings are recommendation base on the findings.

1. Insurance companies should enhance equity investment strategies through market analysis, professional portfolio management, and regular reviews to maximize returns and manage risk.
2. A reasonable portion of portfolios should be allocated to fixed income securities for stable income, while regulators should ensure access to safe, high-yield instruments.
3. Firms should invest in commercially viable real estate for long-term gains, with proper valuation, management, and legal compliance to minimize risks.
4. Optimal liquidity management is essential—maintain sufficient reserves while reinvesting surplus cash in low-risk, short-term instruments.
5. Companies should adopt comprehensive diversification strategies across multiple asset classes and invest in training to strengthen investment management capacity.

REFERENCES

Ibrahim, M. S. (2021). The effect of equity and fixed income securities on the profitability of Nigerian insurance companies. *African Journal of Economic and Financial Research*, 15(1), 77–92.

Investopedia, 2021. A Brief Overview of the Insurance Sector. April 16, 2021. Corporate Finance & Accounting/Corporate Insurance. www.investopedia.com.

Murumba, R. S. (2017). Risk Return Measurement in Portfolio selection and Performance Appraisal Models. *Journal of financial and quantitative analysis*, vol.4. No 4.

Nyora, S. (2015). Investment Portfolio of Insurance Companies in Bangladesh World Journal of Social Sciences, 2(7), 37-47.

Owolabi, A. O., Oloyede, F. A., Iriyemi, A. B., & Akinola, A. T. (2017). The impact of risk management on the profitability of insurance companies in Nigeria. *International Journal of Marketing and Technology (IJMT),* 7 (6), 1-29. www.ijmra.us