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FINANCIAL RISK FACTORS AND FIRM PERFORMANCE: EVIDENCE FROM LISTED COMPANIES IN NIGERIA

Gina Oghogho Olufemi
Department of Accountancy, Wellspring University, Benin city, Edo SXtate, Nigeria.
Email: atugina18@gmail.com

All correspondence to: atugina18@gmail.com

ABSTRACT
This study determined the effect of financial risk factors on firm performance of listed agricultural firms in Nigeria, using liquidity risk, credit risk and operating risk as the independent variables, while return on assets was used to proxy firm performance. Ex Post Facto research design was employed. Data were extracted from the audited annual accounts of agricultural firms in Nigeria spanning from 2013 to 2024. Multiple regression analysis was employed to test the hypotheses. The study revealed that liquidity risk has a positive significant effect on firm performance of agricultural firms in Nigeria, while credit and operating risks have a negatively insignificant effect on firm performance of agricultural firms in Nigeria. This showed that liquidity risk is crucial for financial risk. Firm need to maintain optimal balance between current assets and current liabilities to ensure they meet short-term obligations and capitalize on opportunity for growth. Management should also consider diversifying funding sources to reduced liquidity risk.

Key words: *Credit Risk, Financial Risk, Liquidity Risk, Operating Risk, Return on Assets.*

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INTRODUCTION

Organizational performance has been the most important issue for every organization. It is very important for managers to know which factors influence an organization's performance in order to take appropriate steps to initiate such factors (Gyasi & Attah, 2013). In today's dynamic world, leaders must be able to cope with the increasing volatility and turbulence of the environment due to globalization. Changes in the environment, therefore can pose risks to the performance reliability of the organization. The financial performance of all Nigerian firms is very important. This is the main determinant of survival and sustainability in the business environment, (Ironkwe & Ossat, 2019). Moreover, affirmed that globalization and intense competition brought improved risks where risk asset is becoming an essential part for the success of most organization, especially for the insurance sector because of their high-risk businesses, as the risks are associated with every client in the business and their own risk. Furthermore, Gwamna, Miko and Abdullahi (2022) noted that financial performance of organization is geared susceptible to high level of risk which if not check will affect

performance of the firm. It is the process of evaluating the result of a firm's strategies and activities in monetary expressions. Financial performance is a anticipated aim for all profit oriented companies such as insurance firm (Yahaya & Lamidi, 2015). A company's financial performance relies on the ability to predict, track and handle risks and on the likelihood of insurance to compensate damages incurred by risks occurring.

Some risk factors include operational risk, credit risk and liquidity risk. The performance of the global economy has been affected by crises like the unforeseen Covid-19 pandemic that hit the world in 2020 and led to economic slowdown. The previous global economic crisis was financial crisis of 2008–2009 that was attributed to excessive risk appetites by financial institutions (Grimes, Kevin & William, 2021). The crisis led to erosion of the investor trust in the ability of public firms to manage risks effectively. Business entities in Nigerian economy are surrounded by uncertainties (risk) in their operations which they must surmount before they can survive or become successful. Kanchu and Kumar (2013) see risk as anything limiting the achievement of a certain predefined objectives. Some of those risks include liquidity risks, operational risks and credit risks (Isamade, Udeh, & Odo, 2022).

Risk is defined as anything that can create hindrances in the way of achievement of certain objectives. It can be because of either internal factors or external factors, depending upon the type of risk that exists within a particular situation. Managing risk is one of the basic tasks to be done, once it has been identified and known. The risk and return are directly related to each other, which means that increasing one will subsequently increase the other and vice versa. And, effective risk management leads to more balanced trade-off between risk and reward, to realize a better position in the future (Fatemi & Fooladi, 2006). Globalization and internationalization has increased the risk of firms in the developing countries. This is due to competition from within and outside the countries by either directly from other or indirectly through access to International trade. Management of financial risks has been a big concern for investors, analysts, managers and shareholders around the world (Jamal, Mohamed & Ali, 2014). Financial risk management can therefore be seen as a set of financial activities that maximizes the performance of a firm by reducing costs associated with the cash flow volatility (Bagirov & Mateus, 2017). The manager's behavior toward risk (risk appetite and risk aversion) and corporate governance can affect the choice of risk management activities. Enekwe, Ordu and Nwoha (2013) noted that a robust risk management framework can help firms to reduce their exposure to risks, and enhance their ability to compete in the market. Today, the Nigerian manufacturing sector financial risk management is one of the most important key functions as firms in the sector are in the risk business. Alao and Oloni (2015)

believe that in today's dynamic environment, all manufacturing firms are exposed to a large number of risks such as credit risk, liquidity risk, operational risks, foreign exchange rate risk, market risk and interest rate risk, among others – these risks which may create some source of threat for a firm's survival and success.

The financial risk is signified by the failure of financial performance. The fact of increasingly aggressive and dynamic competitive environment, various companies are always experiencing the financial risks from multi-dimensional problems (Agubata & Odubuasi, 2018). Corporate incompetence and weakness are mainly caused by lagging and failure of financial risk identification. The financial risk is basically generated in the process of financial activities, accumulation and amplification. This can eventually lead to financial crisis of a company (Adesoji, 2016). Quite number of studies on risk and financial risk were conducted in Nigeria and across the globe. Such some studies in Nigeria like; Samade, Udeh, and Odo, (2022) investigated the effect of financial risk on performance of selected manufacturing firms in Nigeria. Isedu and Erhabor (2021) Investigated whether financial risks has effects on the performance of deposit money banks in Nigeria. Some other studies were carried out in foreign countries, such as study of Wu and Li (2021) examined the solvency risk management in property-liability insurance companies in China from 2009 to 2015. Ben Dhiab (2021) examined the determinants of profitability in the Saudi insurance sector. Onsongo, Muathe and Mwangi (2020) carried out a study on financial risk and financial performance of commercial and services listed companies in Nairobi Securities Exchange, Kenya for the period 2013–2017. Most Nigerian researchers were carried out in deposit money Banks, manufacturing companies and insurance companies. There is a dearth research on listed agricultural firms in Nigeria, besides, these stopped in 2020 financial data. This has created sectorial and periodic gaps, which makes this present study significant. Thus, financial risk identification is the key and core of corporate competitiveness.

This prompted the study on effect of financial risk on performance of manufacturing firms in Nigeria. This study assesses the impact of financial risk factors on firm performance of listed agricultural firms in Nigeria. Specifically, the study sought to:

1. Examine the effect of liquidity risk on firm performance of listed agricultural firms in Nigeria.
2. Analyze the impact of credit risk on firm performance of listed agricultural firms in Nigeria.
3. Evaluate the influence of operating risk on firm performance of listed agricultural firms in Nigeria.

LITERATURE REVIEW

Financial Risk

Financial risk is any of several types of risk associated with financing, including financial transactions that include firm loans in risk of default (Fauziah et al, 2018). Frequently, it is understood to include only downside risk, meaning the potential for financial loss and uncertainty about its extent. Financial risk denotes to the possibility that shareholders may lose their monies because of the company's use of debt where the company's cash flows are insufficient to meet its financial responsibilities. Alao and Oloni (2015) reported that financial risk is the corporate inability to meet expected and unexpected demand for cash through generated cash flows. The financial risk is the risk at which the corporate firm does not have enough cash to use for its own obligation. It is a term used to explain a situation where a company does not hold enough cash to pay suppliers, banks, and other parties on time (Erhabor, 2020). These risks may range from technical provision risk, liquidity risk, reinsurance risk, credit risk, solvency risk and underwriting risk and many more.

Liquidity Risk

Liquidity risk includes asset liquidity and operational funding liquidity risk. Asset liquidity refers to the relative ease with which a company can convert its assets into cash should there be a sudden, substantial need for additional cash flow while operational funding liquidity is a reference to daily cash flow (Onsongo, Muathe & Mwangi, 2020). General or seasonal downturns in revenue can present a substantial risk if the company suddenly finds itself without enough cash on hand to pay the basic expenses necessary to continue functioning as a business. This is why cash flow management is critical to business success and why analysts and investors look at metrics such as free cash flow when evaluating companies as an equity investment.

Sisay (2017) contends that liquidity is a term used to refer to how easily an asset or security can be bought or sold in the market. It basically designates how fast something can be converted to cash. There are two different types of liquidity risk. The first is funding liquidity or cash flow risk, while the second is market liquidity risk, also referred to as asset/product risk. Funding or cash flow liquidity risk is the chief concern of a corporate treasurer who asks whether the firm can fund its liabilities (Odubuasi, Wilson & Ifurueze, 2020). A classic indicator of funding liquidity risk is the current ratio (current assets/current liabilities) or, for

that matter, the quick ratio. Market or asset liquidity risk on the other hand is asset illiquidity. This is the incompetence to easily exit a position.

Wangalwa, Matayo and Muturi (2018) documented that liquidity risk is the risk of companies and individuals not meeting their short-term financial responsibilities, precisely due to they are incompetent to convert assets into cash without suffering loss. When liquidity risk occurs, businesses or individuals hold an asset (such as securities) that they want to sell in order to meet their financial obligations. However, these assets will need to be sold below their market value for a wide variety of reasons, including (but not limited to) inefficient markets, limited cash flow, market structure, asset type, urgency and market conditions (Nyasaka, 2017). Adesoji (2016) states that liquidity risk can help companies and investors manage their investments, holdings, and operations to ensure that they are always able to meet financial obligations. Without this information, they may purchase assets that cannot be sold without incurring a loss or other financial distress.

H_{o11}: *Liquidity risk has no significant effect on firm performance of listed agricultural firms in Nigeria.*

Credit Risk

Credit risk is the risk businesses incur by extending credit to customers (Mathuva, 2009). It can also refer to the company's own credit risk with suppliers. A business takes a financial risk when it provides financing of purchases to its customers, due to the possibility that a customer may default on payment. A company must handle its own credit obligations by ensuring that it always has sufficient cash flow to pay its accounts payable bills in a timely fashion (Kamau & Njeru, 2016). Otherwise, suppliers may either stop extending credit to the company or even stop doing business with the company altogether. Agubata and Odubuasi (2018) are of the view that a credit risk is risk of default on a debt that may arise from a borrower failing to make required payments. In the first resort, the risk is that of the lender and includes lost principal and interest, disruption to cash flows, and increased collection costs. The loss may be complete or partial. In an efficient market, higher levels of credit risk will be associated with higher borrowing costs (Isedu & Erhabor, 2021). As a result of this, measures of borrowing costs such as yield spreads can be used to infer credit risk levels based on assessments by market participants.

H_{o2}: *Credit risk has no significant effect on firm performance of listed agricultural firms in Nigeria.*

Operational Risk

Operational risks refer to the various risks that can arise from a company's ordinary business activities (Amenawo, Udoka & James, 2019). The operational risk category includes lawsuits, fraud risk, personnel problems, and business model risk, which is the risk that a company's models of marketing and growth plans, may prove to be inaccurate or inadequate. Adolphus (2018) is of the view that operational risk summarizes the uncertainties and hazards a company faces when it attempts to do its day-to-day business activities within a given field or industry. As a type of business risk, it can result from breakdowns in internal procedures, people and systems as opposed to problems incurred from external forces, such as political or economic events, or inherent to the entire market or market segment, known as systematic risk.

Darko and Kruger (2017) asserted that operational risk emphases on how tasks are accomplished within an organization and not necessarily what are produced or inherent within an industry. These risks are often related with active decisions relating to how the organization functions and what it prioritizes. While the risks are not guaranteed to result in failure, lower production, or higher overall costs, they are seen as higher or lower depending on various internal management decisions. Because it reflects man-made procedures and thinking processes, operational risk can be concise as a human risk; it is the risk of business operations failing due to human error (Bagirov & Mateus, 2017). It changes from industry to industry and is an important consideration to make when looking at potential investment decisions. Industries with lower human interaction are likely to have lower operational risk.

H_{o3}: *Operating risk has no significant effect on firm performance of listed agricultural firms in Nigeria.*

Empirical Review

Duniya, Abdullahi and Miko (2024) ascertained risk and financial performance of listed insurance firms in Nigeria for the period of ten years from 2011-2020. The data was analyzed using the multiple regressions. The study revealed that solvency risk is positively and significantly influencing the financial performance of listed insurance firms in Nigeria. Conversely, liquidity risk revealed a statistical negative and insignificantly impact on financial performance. Samade, Udeh, and Odo, (2022) ascertained the effect of financial risk on performance of selected manufacturing firms in Nigeria. Panel regression technique based on random effect model is used to establish the effect of operational risk, credit risk and liquidity risk on profit for the year. Unit root test and descriptive statistics are used as

preliminary test. The study revealed that operational risk, credit risk and liquidity risk have a positive significant effect on profit for the year of selected manufacturing firms in Nigeria. Operational risk has positive significant effect on the profit for the year of selected manufacturing firms.

Wu and Li (2021) determined the solvency risk management in property-liability insurance companies in China from 2009 to 2015. The results found solvency is positively significant in small Chinese-funded insurance companies as well as foreign-funded insurance companies, while it is insignificant in large Chinese-funded insurance companies. Ben Dhiab (2021) evaluated the determinants of profitability in the Saudi insurance sector. The empirical analysis is based on data relative to a sample of 20 Saudi insurance companies between 2009 and 2017. Generalized Least Squares, Ordinary Least Squares with panel-corrected standard errors, Difference GMM and finally System GMM was employed to analyze the data. The study revealed that the growth rate of written premium, the tangibility ratio and the fixed-assets ratio are the main factors affecting positively the profitability of Saudi insurance companies. Moreover, company size and liquidity are positively but insignificantly associated with profitability.

Isedu and Erhabor (2021) explored whether financial risks has effects on the performance of deposit money banks in Nigeria. Regression analysis was adopted for the study. The study revealed that the combined effects of financial risks do not influence banks' performance negatively. The results revealed that financial risk proxied by credit risk does not have any significant relationship with financial performance of deposit money banks in Nigeria. Liquidity risk is a significant determinant of deposit money banks' performance in Nigeria in the period under investigation. the effect of market risk, interest rate risk and operational risk did not in any way affect bank performance significantly in Nigeria. Onsongo, Muathe and Mwangi (2020) studied financial risk and financial performance of commercial and services listed companies in Nairobi Securities Exchange, Kenya for the period 2013–2017. Panel regression model was applied with the random effect model being used based on the Hausman specification test. Findings showed that credit risk had an insignificant positive effect on return on equity (ROE) while liquidity risk had a significantly negative effect on ROE and operational risk had a positive insignificant effect on ROE. The positive coefficients from the data analysis indicated that commercial and service companies at NSE were able to take in more credit to boost performance of these companies.

Odubuasi, Oshilim and Ifurueze (2020) ascertained the effect of market risks on the financial performance of firms in Nigeria. Data were collected from Central Bank of Nigeria Statistical Bulletin and the financial statements of the firms which spanned from 2014 to 2018. The data were analyzed with descriptive statistics, correlation and multiple regression analysis. The results there from indicated that exchange rate has significant effect on both ROA and ROE of Oil and Gas firms. Additionally, interest rate has significant effect on ROE and insignificant effect on ROA. More results showed that commodity price change has no significant effect on both ROA and ROE, also equity price change has no significant effect on ROA and ROE of firms in Oil and Gas sector in Nigeria. Chukwunulu, Ezeabasili and Igbodika (2019) examined the effect of credit risk on bank's performance. Regression analysis was adopted for the study while it revealed that ROA and ROE which both measurement of profitability were vice versa related to Non-Performing Loan. This has caused the decreases in profitability.

Amenawo, Udoka and James (2019) investigated financial risk and performance of small and medium enterprises in Nigeria. Exploratory research design was used and data were sourced from Central Bank of Nigeria (CBN) statistical bulletin from 1986 to 2017. The study uses autoregressive distributed lag (ARDL) techniques as the tool of analysis. It revealed a negative and insignificant relationship between financial risk and SMEs` performance in Nigeria in the long run. However, exchange rate risk, liquidity risk, interest rate risk and inflation risk have a significant, but negative impact on small and medium enterprises in the short run, as well as the long run. Financial risk adversely affects the performance of Nigerian SMEs and, therefore, should be controlled to enhance their performance. Adolphus (2018) investigated modeling bank management, rural lending and small business finance in Nigeria. Multiple regressions was adopted in the study where it was shown that there is a positive relationship between credit risk management and profitability, but stated that there are other factors that can impact the performance of banks especially in rural area. These are low level of income, inaccessibility to formal financial markets and also lack of information or awareness.

Imad (2018) determined the bank-specific determinants of Jordanian Islamic banks' profitability. The study employed profit margin and Return on Assets (ROA) as indicators of banks' profitability. The analytical technique applied was regression analysis. The result revealed that credit risk has positive effect on Islamic banks' profitability. Other factors such as bank size, non-interest earning and efficiency of management expenses do not has any significant effect on Return on Asset (ROA) and profit margin of these banks. Fauziah, et al

(2018) analyzed the relationship between financial risks and profitability of conventional and Islamic banks in Malaysia. They used panel data sources from 2006- 2011. In the study, bank profitability is proxied by Return on Asset (ROA), Return on Equity (ROE) and Net Interest/Income Margin (NIM), whereas the independent variables were proxied by liquidity risk, credit risk, interest rate risk, interaction between credit risk and interest rate risk, off balance sheet activities, bank size, bank capital, lag of ROA or ROE and GDP growth. The outcome of the study showed that credit risk has a major effect on Return on Asset and Return on Equity of the banks. Wangalwa and Muturi (2018) investigated operational risk and performance of Supermarkets in Nairobi County. Cost to income ratio was utilized as an indicator to operational risk while ROA as representation of financial performance. Descriptive research design was employed with quantitative data. The study was supported by extreme value theory, financial distress theory and firm value maximization theory. Multiple regressions were adopted as analytical technique of the study. The study showed that operational risk negatively affected ROA. .

MATERIAL AND METHODS

The research employed an ex-post facto research design, specifically utilizing the casual-comparative method. Ex-post facto research contains a study where the scholar works with independent variables that cannot be manipulated during the research procedure. The population of the study consists of the five agricultural firms quoted on the Nigerian Exchange Group. The study covered ten years annual reports and accounts of these companies from 2013 to 2024. The firms are Ellah Lakes Plc, Ftn Cocoa Processors Plc Livestock Feeds Plc, Okomu Oil Palm Plc and Presco Plc**.** The study used all the five agricultural firms quoted on the Nigerian Exchange Group for the sample size. The research employs secondary data sourced from audited annual reports and accounts of the chosen companies. The data is extracted from the Statement of Financial Position and the Statement of Profit or Loss and Comprehensive Income. This dataset spans duration of eleven years, from 2013 to 2024. Annual reports and accounts are considered reputable and dependable sources as they bear the endorsement of the management, gain approval from the Security and Exchange Commission (SEC), and undergo external audit scrutiny.

This study modified the model of Duniya, Abdullahi and Miko (2024). The model of the study encapsulates the contribution of solvency risk (net income / total liabilities), liquidity risk (ratio of current assets to current liabilities) and return on equity (profit after tax / total equity) of listed insurance firms in Nigeria.

It is mathematically represented thus:

$ROEit = \beta_0 + \beta_1 SRit + \beta_2 LRit + \varepsilon it$ ……Eqn 1.

Where:

ROE = Return on Equity

SR = Solvency Risk

LR = Liquidity Risk

β0 = Constant term,

β_1 - β_2 = Coefficients of independent variables

ε = Error Term

i = Firms (DMBs)

t = Period

The model above was modified to produce the specific model suitable for the study.

$ROA_{it} = \beta_0 + \beta_1 LQR_{it} + \beta_2 CRR_{it} + \beta_3 OPR_{it} + \beta_4 LEV_{it} + \varepsilon it$ ……Eqn 2.

Where:

ROA is Return on Asset, calculated as earnings after-tax/total asset

LQR_{it}= total cash equivalent over total assets

CRR_{it} = trade receivable over total assets

OPR_{it}= operating expenses over total assets

LEV_{it}= total asset over shareholder's equity

β_{1-4} represents the regression coefficient;

ε represents the error term;

i represents individual firms and t represents the time/year.

The analysis of data for this research based on the data collected from publications of the Nigerian exchange Group and the annual reports of the quoted companies. Both the dependent and independent variables were computed from the data gotten from the Nigerian Exchange Group from 2013 to 2024.

Descriptive statistics employed to summarily describe the mean, median, standard deviation, kurtosis and skewness of the study variables. Inferential statistics was utilized with the aid of E-Views 9 using:

i. Coefficient of correlation, which is a good measure of relationship between two variables that tell us about the strength of relationship and the direction of the relationship as well.

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ii. Multiple regressions analysis which predicts the value the dependent variable based on the value of the independent variable and explains the impact or effect of changes in the values of the variables.

iii. Accept the alternative hypothesis, if the Probability value (P-value) of the test is less than 0.05 (5%). Otherwise reject.

RESULT AND DISCUSSIONS

Table 1: Descriptive Statistics

	ROA	LQR	CRR	OPR	LEV
Mean	-0.030267	2.349791	2.226589	8.573207	0.386905
Median	-0.022379	0.013247	0.037430	0.015780	0.426807
Maximum	-6.36E-05	12.15401	20.15954	32.66664	0.582724
Minimum	-0.147017	1.37E-05	0.000352	0.006167	0.150181
Std. Dev.	0.038222	4.485353	5.526811	12.45485	0.188347
Skewness	-2.305477	1.577702	2.876145	0.847891	-0.124918
Kurtosis	7.599296	3.695123	9.570090	1.926713	1.158879
Jarque-Bera	106.0360	26.09941	190.6373	10.06906	8.630358
Probability	0.000000	0.000002	0.000000	0.006509	0.013364
Sum	-1.816001	140.9874	133.5953	514.3924	23.21432
Sum Sq. Dev.	0.086197	1186.985	1802.193	9152.270	2.092991
Observations	60	60	60	60	60

The kurtosis of 7.599, 3.695, 9.570, 1.927, and 1.159, for ROA, LQR, CRR, OPR and LEV showing a distribution that is strong, suggesting a concentration of values around the mean with potential outliers. The Jarque-Bera probability of 0.000, 0.000, 0.000, 0.007 and 0.013 confirmed that the LQR, CRR, OPR and LEV data is significantly non-normally distributed showed that traditional parametric analyses may need to be approached with caution.

On the Jarque–Bera test of goodness-of-fit, the result suggested that only the data on firms in the Nigerian and Ghanaian sample firms followed a normal distribution. However, the departure from normality of the other variables did not pose any major problem in the panel data since the Central Limit Theorem revealed that the violation of the normality assumption posed no major problem in panel data analysis, especially with large firm-year observations (Ghasem and Zahediasl, 2012).

Multicollinearity Test

Table 2: Pearson Correlation Matrix

	ROA	LQR	CRR	OPR	LEV
ROA	1				
LQR	0.13306	1			
CRR	0.19366	-0.00943	1		
OPR	0.17403	0.77459	-0.08062	1	
LEV	0.40339	0.52372	0.39414	0.67501	1

Source: E-Views 9 Correlation Output, 2025

The outcome of the correlation matrix was presented in Table 2. In the first part which focused on the Nigerian sample, the measures of liquidity risk (LQR) 0.133, credit risk (CRR) 0.194, operationg risk (OPR) 0.174, firm leverage (LEV) 0.403 were all positively correlated with the return on assets (ROA). It could be observed from the tables above that there was no evidence of high-correlation among the variables of samples. In the results, LEV showed the highest correlation coefficient at 0.403 which was an indication that the issue of multicollinearity was likely absent among the distributions since Hair, Black, Babin and Anderson (2010) posited that multicollinearity problem was likely present when the correlation coefficient is above 0.90.

Test of Hypotheses

Table 3: regression analysis between LQR, CRR, OPR, LEV and ROA

Dependent Variable: ROA
Method: Panel Least Squares
Date: 05/30/25 Time: 08:40
Sample: 2013 2024
Periods included: 12
Cross-sections included: 5
Total panel (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.068214	0.012571	-5.426497	0.0000
LQR	3.14E-06	0.001653	3.001901	0.0085
CRR	-0.000310	0.001074	-0.288274	0.7742
OPR	-0.000642	0.000769	-0.835749	0.4069
LEV	0.114075	0.042420	2.689152	0.0095

R-squared	0.381709	Mean dependent var	-0.030267
Adjusted R-squared	0.322197	S.D. dependent var	0.038222
S.E. of regression	0.235811	Akaike info criterion	-3.741462
Sum squared resid	0.070534	Schwarz criterion	-3.566934
Log likelihood	117.2439	Hannan-Quinn criter.	-3.673195
F-statistic	3.053307	Durbin-Watson stat	2.467291
Prob(F-statistic)	0.002414		

In Table 3, a simple pooled regression analysis was conducted to test the effect between liquidity risk (LQR), credit risk (CRR), operating risk (OPR), firm leverage (LEV) and return on assets (ROA). The R-squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table, the value of R squared was 0.38, an indication that there was variation of 38% on ROA due to changes in LQR, CRR, OPR and LEV. This implies that 38% changes in ROA could be accounted for by LQR, CRR, OPR and LEV, while 62% was explained by unknown variables that were not included in the model.

The Durbin-Watson Statistic of 2.47 suggests that the model does not contain serial correlation. The F-statistic of the regression is equal to 3.053. The associated F-statistic probability is equal to 0.008.

Hypothesis One

Ho_1: Liquidity risk has no significant effect on firm performance of listed agricultural firms in Nigeria.

The evidence provided by the regression result of the model showed that the liquidity risk had a positive coefficient of 3.140 and a p-value of 0.008 which was significant at 5% level for Nigeria agricultural firms. The study therefore, reject null hypothesis and accept the alternate hypothesis which uphold that the liquidity risk has a positive significant effect on firm performance of listed agricultural firms in Nigeria. This result is in line with the Samade, Udeh, and Odo, (2022) who revealed that liquidity risk has a positive significant effect on profit for the year of selected manufacturing firms in Nigeria, and Isedu and Erhabor (2021) result which shows that liquidity risk is a significant determinant of deposit money banks' performance in Nigeria. But disagreed with Ben Dhiab (2021) which showed that liquidity are positively but insignificantly associated with profitability.

Hypothesis Two

Ho_1: Credit risk has no significant effect on firm performance of listed agricultural firms in Nigeria.

The evidence provided by the regression result showed that the credit risk had a positive coefficient of -0.000310 and a p-value of 0.774 which was not significant at 5% level for Nigeria agricultural firms. The study therefore, reject null hypothesis and accept the alternate hypothesis which uphold that the credit risk has a negative insignificant effect on firm

performance of listed agricultural firms in Nigeria. This result affirmed the outcome of Isedu and Erhabor (2021) result which shows that credit risk does not have any significant relationship with financial performance of deposit money banks in Nigeria, but disagreed with the findings of Samade, Udeh, and Odo, (2022) which revealed that credit risk has a positive significant effect on profit for the year of selected manufacturing firms in Nigeria.

Hypothesis Three

Ho_1: Operating risk has no significant effect on firm performance of listed agricultural firms in Nigeria.

The evidence provided by the regression result showed that the operating risk had a negative coefficient of -0.000642 and a p-value of 0.407 which was not significant at 5% level for Nigeria agricultural firms. The study therefore, reject null hypothesis and accept the alternate hypothesis which uphold that the operating risk has a negative insignificant effect on firm performance of listed agricultural firms in Nigeria. The result affirm Isedu and Erhabor (2021) result which shows that operational risk did not in any way affect bank performance significantly in Nigeria. However, the study disagreed with Samade, Udeh, and Odo, (2022) showing that operating risk has a positive significant effect on profit for the year of selected manufacturing firms in Nigeria. Operational risk has positive significant effect on the profit of manufacturing firms.

CONCLUSION AND RECOMMENDATIONS

This study determined the impact of financial risk factors on firm performance of listed agricultural firms in Nigeria, using liquidity risk, credit risk and operating risk as the independent variables, while return on assets was used to proxy firm performance. Data were extracted from the audited annual accounts of agricultural firms in Nigeria spanning from 2013 to 2024. Multiple regression analysis was employed to test the hypotheses. The study revealed that liquidity risk has a positive significant effect on firm performance of agricultural firms in Nigeria, while credit and operating risks have a negatively insignificant effect on firm performance of agricultural firms in Nigeria. This showed that liquidity risk is crucial for financial risk. The study therefore recommends that:

1. Firm need to maintain optimal balance between current assets and current liabilities to ensure they meet short-term obligations and capitalize on opportunity for growth. Management should also consider diversifying funding sources to reduced liquidity risk.

2. Corporate management should prioritize the development and implementation of robust credit risk assessment strategies. This involves improving credit underwriting process.

3. The firm management should implement effective operational risk management practices; firms can minimize the likelihood and impact of operational failure and disruption. Thus improving overall operational efficiency and effectiveness.

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