

RESEARCH ARTICLE**Effect of Financial Risk on Performance of Selected Manufacturing Firms in Nigeria**Isamade, Burabari Andrea¹, Udeh, Sergius Nwannebuike², Odo, John³¹School of Postgraduate Studies, Godfrey Okoye University, Enugu^{2&3}Department of Accounting and Finance, Godfrey Okoye University, Enugu, Nigeria***Corresponding Author: Isamade, B. A. | School of Postgraduate Studies, Godfrey Okoye University, Enugu****ABSTRACT**

The aim of this study is to investigate the effect of financial risk on performance of selected manufacturing firms in Nigeria. Specifically, the study is set to determine the effect of operational risk, credit risk and liquidity risk on profit for the year of manufacturing firms in Nigeria. The study adopts ex-post facto research design. The population comprises of all the 17 quoted food and beverage companies in Nigeria, while the sample size comprised of 5 food and beverage firm namely: Nigerian breweries Plc, Champion breweries Plc, Nestle Nigeria, Guinness Nigeria Plc and Cadbury Nigerian Plc. Judgmental sampling technique is used in selection of the sample. 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 reveals 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 have positive significant effect on the profit for the year of selected manufacturing firms. The study recommends manufacturing firms in Nigeria to make cost benefit analysis before committing the firm's resources towards a specific decision.

Keywords: Financial Risk; Manufacturing Firms; Nigeria; Performance

Introduction

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.

Falemi and Fooladi (2006) defined risk 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 on 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. An effective risk management leads to more

balanced trade-off between risk and reward, to realize a better position in the future. Globalization and internationalization have 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.

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. Some risk factors include operational risk, credit risk and liquidity risk.

Citation: Isamade, B. A., Udeh, S. N., & Odo, J. (2022). Effect of Financial Risk on Performance of Selected Manufacturing Firms in Nigeria. *European Journal of Finance and Management Sciences* 6(5), 86-99. DOI: <https://doi.org/10.5281/zenodo.7597910>

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Troy (2020) 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 while credit risk is the possibility of a loss resulting from a borrower's failure to repay a loan or meet contractual obligations. Traditionally, it refers to the risk that a lender may not receive the owed principal and interest, which results in an interruption of cash flows and increased costs for collection. On the other hand, liquidity is the ability of a firm to pay its debts without suffering catastrophic losses. Conversely, liquidity risk stems from the lack of marketability of an investment that cannot be bought or sold quickly enough to prevent or minimize a loss (Ekinici, 2016). These financial risks go a long way in affecting the performance of various organizations necessitating the need to critically evaluate them before embarking on any investment.

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) note 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). 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.

Statement of Problem

Financial risk is a prospective situation that causes a business to lose money and resources. There has been concerns over the effect of financial risks on performance of manufacturing firms. These risks has affected the firms' profitability, effectiveness and cash flow making them unable to meet their obligations as they fall due.

Risk is inherent in any business enterprise, and good risk management is an essential aspect of running a successful business. A company's management has varying levels of control in regard to risk (Grimes, 2006). Some risks can be directly managed; other risks are largely beyond the control of company management. Sometimes, the best a company can do is try to anticipate possible risks, assess the potential impact on the company's business, and be prepared with a plan to react to adverse events.

Enekwe, Ordu and Nwoha (2013) argue that there are five ways in which financial risk management systems can break down, all exemplified in the manufacturing sector: failure to use appropriate risk metrics; mis-measurement of known risks; failure to take known risks into account; failure in communicating risks to top management; failure in monitoring and managing risks. Poor management of various financial risks such as operational risk, credit risk and liquidity risk often result to high levels of firms' losses. Adesoji (2016) is of the view that a good risk management protocols when followed can lead to high capital value, better competitive advantage, maximum market profit margins, and good shareholder equity. In the same way, a poor risk management which involves the use of wrong tools for risk management and control, inadequate utility of required management processes, poor quality of management and assessment can lead to big calamity in any sector including the manufacturing sector.

There are various forms of financial risk affecting the manufacturing firm and they are: low profitability, poor economic efficiency, lack of funds, unreasonable debt structure, poor operating capacities, weak growth ability, all these and more necessitated the need for the study.

Objectives of the Study

The broad objective of this study is to examine the effect of financial risk on performance of manufacturing firms in Nigeria. The specific objectives are:

1. To examine the effect of operational risk on the profit for the year of selected manufacturing firms in Nigeria.
2. To determine the effect of credit risk on profit for the year of selected manufacturing firms in Nigeria.
3. To investigate the effect of liquidity risk on profit for the year of selected manufacturing firms in Nigeria.

Statement of Hypotheses

The study is supported by these null hypotheses:

1. Operational risk does not have significant effect on the profit for the year of selected manufacturing firms in Nigeria.
2. Credit risk does not significantly affect profit for the year of selected manufacturing firms in Nigeria.
3. A significant effect does not exist between liquidity risk and profit for the year of selected manufacturing firms in Nigeria.

Review of Related Literature

Conceptual Review

Financial Risk

Financial risk is any of various types of risk associated with financing, including financial transactions that include company loans in risk of default (Fauziah et al, 2018). Often, it is understood to include only downside risk, meaning the potential for financial loss and uncertainty about its extent.

Financial risk refers 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 obligations. Alao and Oloni (2015) noted 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 do 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.

The challenge of the financial risk exposure is still a major issue as the mitigation against the risks has not been successfully attained. This is due to the fact the settling on a model that can consolidate all these factors and offer an appropriate tool for mitigation all at once is yet to be achieved.

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.

To reduce the lender's credit risk, the lender may perform a credit check on the prospective borrower, may require the borrower to take out appropriate insurance, such as mortgage insurance, or seek security over some assets of the borrower or a guarantee from a third party (Imad, 2018). The lender can also take out insurance against the risk or on-sell the debt to another company. In general, the higher the risk, the higher will be the interest rate that the debtor will be asked to pay on the debt. Credit risk mainly arises when borrowers are unable or unwilling to pay. Wangalwa, Matayo and Muturi (2018) classify credit risks into the following types:

1. **Credit Default Risk** – The risk of loss arising from a debtor being unlikely to pay its loan obligations in full or the debtor is more than 90 days past due on any material credit obligation; default risk may impact all credit-sensitive transactions, including loans, securities and derivatives.
2. **Concentration Risk** – The risk associated with any single exposure or group of exposures with the potential to produce large enough losses to threaten a firm's core operations. It may arise in the form of single-name concentration or industry concentration.
3. **Country Risk** – The risk of loss arising from a sovereign state freezing foreign currency payments (transfer/conversion risk) or when it defaults on its obligations (sovereign risk); this type of risk is prominently associated with the country's macroeconomic performance and its political stability.

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 describes how quickly 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 inability to easily exit a position.

Wangalwa, Matayo and Muturi (2018) note that liquidity risk is the risk of companies and individuals not meeting their short-term financial obligations, specifically because they are unable to convert assets into cash without incurring a 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.

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) state that operational risk focuses on how things are accomplished within an organization and not necessarily what is produced or inherent within an industry. These risks are often associated 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 summarized 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.

Profit for the Year

Anichebe and Agu (2013) argue that corporate profits reflect the income earned by corporations as a result of current production; the measure is defined as receipts arising from current production less associated expenses. Receipts exclude income in the form of dividends and capital gains, and expenses exclude bad debts, natural resource depletion, and capital losses. Panigrahi (2013) opines that most businesses prepare two sets of profits information: financial and tax. Both financial accounting and tax accounting define a corporation's profits as the difference between its receipts and its expenses, but they differ with respect to the definition of some receipts and expenses; in the timing of when the receipts and expenses are recorded and for whom the information is prepared.

Lwiki, et al (2013) state that profit, in accounting, is an income distributed to the owner in a profitable market production process (business). Profit is a measure of profitability which is the owner's major interest in income formation process of market production.

Corporate profit is one of the most closely followed economic indicators. Raheman and Nasr (2007) state that profitability provides a summary measure of corporate success or failure and thus serves as an essential indicator of economic performance. Profits are source of retained earnings, providing much of the funding for investment in plant and equipment that raises productive capacity. They are also frequently used in measuring the rate of return on investment and the relationship between earnings and equity valuation. Profits may also be used to evaluate the effects on corporations of changes in policy or in economic conditions.

Ugwu, Onyemachi and Udeh (2022) state that organizational performance can be seen from two stand points: financial and non – financial performance. Financial performance indicators include amongst others, return on equity, return on asset, net profit margin, net profit after interest and tax (profit for the year) and earning per share while tools of financial statement analysis include amount and percentage, trend analysis, standard of comparison, quality of earnings and ratios.

Theoretical Review

The Risk Theory of Profit

This study is premised on the risk bearing theory of profit developed by Hawley (1893). This theory of profit is generally based on the risk and performance literature. Performance and financial risks are two components that have a two-way interaction. Each component is important to the other to sustain the operation of the firm. According to Hawley's risk theory of profit, profit is considered to be the return of risk as an additional factor of production and have a positive relationship with risk (Chukwunulu, Ezeabasili & Igbodika, 2019).

This means that the higher the factor (that is, risk), the higher the profit and the higher the distributable return for the risk. The theory posits that profit is a reward for risk taking, that some risks are inherent in every business enterprise in view of the speculative nature; thus in the business operations, the management has to bear the risk in order to get profit being the reward for the risk taking. The degree of risk varies according to different businesses. However, there is a positive relationship between risk and profit. This idea is supported by Athanasoglou, Delis and Staikoras (2016), who argued that risk has a positive correlation with Return on Investment. This idea becomes true when a firm's management take risk by relocating funds in high-risk investments or loans with high returns; alternatively, the theory becomes fantasy when the firm faces high risk and management fails to manage its occurrence and returns.

This theory was criticized by Carvar (1901) who pointed out that profits do not arise because of risk bearing capacity but because of risk reducing capacity of the entrepreneurs.

Empirical Review

Mathuva (2009) sought to conduct a study on the effect of operational risk on performance of commercial banks in Kenya. The researcher used cost to income to gauge operational risk. ROA and ROE were used as proxies to performance. Panel regression was employed as the model for the study. The research findings showed that operational risk is inversely related with both performance indicators.

Aruwa and Musa (2014) examined the effects of risk components like credit risk, interest rate risk and operational risk on the financial performance of Deposit Money Banks in Nigeria. The study used the whole number of banks operating in Nigeria from the year 1997 to 2011. Regression analysis was adopted in the study while it was shown that there is a strong relationship between the risk components and the financial performance of banks in Nigeria as indicated by the R squared value of 91%; while credit risk and the rate of capital to total weighted risk asset have positive relationship. Operational risk and interest rate risk affects profitability negatively.

Wani and Ahmad (2013) conducted a research on liquidity risk and performance of Indian insurance industry. Current ratio was utilized as a measure to liquidity risk while ROA was employed as representation of financial performance. Secondary data extracted from the financial statements and multiple regression were used in the study. From the findings liquidity risk had a positive statistically significant relationship on return on asset of insurance industry in India. The study was conducted in Asia and on the insurance industry whose findings may not be relevant to Kenyan contexts. The current study therefore contextualized the gap.

Athanasoglou, Delis and Staikouras (2016) studied the determinants of bank profitability in the South Easter Europe region over the period 2008-2012. They applied random effect model (REM) for Generalized Least Square (GLS) estimation model since Hausman test indicated insignificant P value. The results of the study showed that liquidity risk has positive but not a significant effect on Return on Asset (ROA) of banks, while credit risk has negative and significant effect on banks' ROA. Moreover, capital has positive and also significant effect on ROA.

Kamau and Njeru (2016) investigated how liquidity risk affected performance of insurance companies listed on the NSE, Kenya. They looked at credit risk, operational risk and liquidity risk as the explanatory variable of the study while ROE was used to gauge performance. They used descriptive research design. For the methodology, multiple regression model was employed. The extreme value theory, credit risk theory and capital Structure theory supported their research. Market risk and operational risks had significant negative effects on ROE of the insurance companies listed NSE. This research sought to add value by reviewing liquidity risk on a non-insurance sector of the NSE thus filling the contextual gap.

Muriithi (2016) explored financial risk and financial performance of commercials banks in Kenya. A sample of 43 commercial banks licensed by central Bank of Kenya for the years from 2005 to 2014 were studied. The findings of the study indicated that credit and liquidity risks have significant negative effect on return on equity. The study deduced that there was an inverse effect between financial risk and financial performance of banks in Kenyan. The study focused on all listed banks, but the current study is on listed commercial and Service firms.

Sisay (2017) reviewed how financial risk affected financial performance of insurance firms in Ethiopia. The thesis used panel survey methods and unstructured in-depth interviews. The study used three independent variables which included credit risk, liquidity risk and solvency risk. The dependent variable for performance was return on assets (ROA). The outcome of regression indicated that credit risk, liquidity risk, solvency risk had a negative and important impact on the profitability of insurance firms in Ethiopia. This study bridged the contextual gap by assessing noninsurance firms and used return on equity as the proxy of performance.

Nyasaka (2017) reviewed management of credit risk and non-performing loans in the banks. In his study, credit risk was measured by the characteristic of the borrower which was used to determine the credit score. The analytical technique of study was regression. The study established that non-performing loans negatively affected a bank's lending ability. This created a negative signaling effect on credit risk.

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 regression was adopted as analytical technique of the study. From their findings, operational risk negatively affected ROA.

Adolphus (2018) investigated modeling bank management, rural lending and small business finance in Nigeria. Multiple regression 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) investigated 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 independent variables used were capital adequacy, credit risk, liquidity risk, management efficiency, bank size, management expenses, non-interest earnings, market concentration, bank-industry size, inflation and economic growth. The analytical technique adopted was regression analysis. The result revealed that credit risk has positive impact on Islamic banks' profitability. Other factors such as bank size, non-interest earning and efficiency of management expenses do not have 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. They believed the outcome might be due to the move that banks are exposed to high-risk loan, the higher the Non-Performing Loan and this eventually resulted in the decrease of conventional banks' earnings.

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 measure 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.

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. The study applied explanatory research design. The target population were the 14 companies listed under this segment of NSE. Secondary panel data contained in published annual reports for the period 2013–2017 was collected. 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. However, the negative coefficients show that within the period of study these companies experienced high liquidity problems in that the current liabilities exceeded the current assets.

Odubuasi, Oshilim and Ifurueze (2020) did a study on effect of market risks on the financial performance of firms in Nigeria. The study employed causal research design and used secondary data. The research covered the twelve (12) firms listed under Oil and Gas sector on the Nigerian Stock Exchange. Secondary 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.

Isedu and Erhabor (2021) Investigated whether financial risks has effects on the performance of deposit money banks in Nigeria. Regression analysis was adopted for the study. The findings revealed that the combined effects of financial risks do not influence banks' performance negatively. more specifically, the results from the empirical analysis 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.

Research Gap

The works reviewed in this study did not disintegrate various financial risks as variables in order to effectively capture how each financial risk such as operational risk, credit risk or liquidity risk affect performance of firms. This was carried out in this present study as it aimed to ascertain the effect of financial risk on performance of manufacturing firms in Nigeria.

Secondly, none of the reviewed authors extended their studies to 2020 as end year. For instance, (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 from 2013–2017 while Odubuasi, Wilson-Oshilim and Ifurueze (2020) carried out a study on effect of market risks on the financial performance of firms in Nigeria 2014 to 2018. But this present study covered from 2011 to 2020.

Materials and Methodology

The researcher adopted *ex-post facto* research design. The area of study is Nigeria. This study is on effect of financial risk on performance of selected manufacturing firms in Nigeria.

The population of the study covered all the food and beverage sub sector of manufacturing firms quoted on Nigerian Exchange Group. There are a total of seventeen (17) quoted food and beverage companies in Nigeria. The sample size consists of five (5) quoted manufacturing firms in Nigeria selected from the seventeen (17) food and beverage sub sector of manufacturing sector in Nigeria. The selected samples include; Nigeria Breweries Plc, Champion Breweries Plc, Nestle Nigeria, Guinness Nigeria Plc and Cadbury Nigeria Plc. These firms were selected for this study because they are more relevant to the area of interest and the data for the duration of time under study are readily available in their annual reports. The sample firms were selected with the aid of purposive sampling as the researcher had the freewill to go directly to the target population of interest. This study made use of secondary data covering a period of 10 years i.e., 2011 – 2020, which were obtained from the financial statements of the selected firms. The model is specified as follows:

$$PFY = f(OR, CR, LR)$$

Where:

PFY = Profit for the year

OR = Operational Risk

CR = Credit Risk

LR = Liquidity Risk

Data covering a period of 10 years were estimated using random panel regression model to test the hypotheses of the study. Descriptive statistics and unit root test were used as the preliminary tests.

Decision Rule:

Reject the null hypothesis when the probability value is less than 0.05, otherwise accept the null hypothesis

Analysis And Results

Test of Hypotheses

Table 1: Hypothesis One

Dependent Variable: PFY
 Method: Panel EGLS (Period random effects)
 Date: 11/12/21 Time: 09:55
 Sample: 2011 2020
 Periods included: 10
 Cross-sections included: 5
 Total panel (balanced) observations: 50
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	58152716	1.00E+08	3.579703	0.0049
OR	2146361.	28646482	3.074926	0.0006
CR	2194.643	15693.59	5.139843	0.0094
LR	45278636	30733999	3.473243	0.0475

Effects Specification		S.D.	Rho
Period random		72969876	0.0199
Idiosyncratic random		5.12E+08	0.9801

Weighted Statistics			
R-squared	0.047864	Mean dependent var	1.18E+08
Adjusted R-squared	-0.014231	S.D. dependent var	5.00E+08
S.E. of regression	5.03E+08	Sum squared resid	1.17E+19
F-statistic	0.770814	Durbin-Watson stat	1.731082
Prob(F-statistic)	0.516286		

Unweighted Statistics			
R-squared	0.047036	Mean dependent var	1.23E+08
Sum squared resid	1.18E+19	Durbin-Watson stat	1.738049

Source: Authors' Computation from E-View 9.0, 2022

R² of 0.047864 shows the goodness of fit. F-statistics of 0.770814 shows a significant effect. Durbin-Watson test of 1.731082 shows a positive auto correlation.

Given the decision criteria to reject H₀ if the probability of the t-statistics is < 0.05. Table 10 shows that operating risk with a probability of the t-statistics of 0.0006 < 0.05. We reject the null hypothesis (H₀) and conclude that operational risk has significant effect on the profit for the year of manufacturing firms in Nigeria.

Hypothesis Two

Given the decision criteria to reject H₀ if the probability of the t-statistics is < 0.05. Table 1 shows that credit risk with a probability of the t-statistics of 0.0094 < 0.05. We reject the null hypothesis (H₀) and conclude that credit risk significantly affect profit for the year of manufacturing firms in Nigeria

Hypothesis Three

Given the decision criteria to reject H₀ if the probability of the t-statistics is < 0.05. Table 1 shows that liquidity risk with a probability of the t-statistics of 0.0475 < 0.05. We reject the null hypothesis (H₀) and conclude that a significant effect exists between liquidity risk and profit for the year of manufacturing firms in Nigeria.

Discussion of Findings

Effect of Operational Risk on the Profit for the Year of Selected Manufacturing Firms in Nigeria

Operational risk has significant effect on the profit for the year of manufacturing firms in Nigeria based on the premise that R^2 of 0.047864 shows the goodness of fit between operating risk and profit for the year, F-statistics of 0.770814 shows a significant effect, Durbin Watson stat of 1.731082 shows a positive autocorrelation while the probability of the t-statistics of 0.0006 was less than 0.05. This discovery is in agreement with the finding of Aruwa and Musa (2014). They examined the effects of risk components like credit risk, interest rate risk and operational risk on the financial performance of Deposit Money Banks in Nigeria. It was shown that there is a strong relationship between the risk components and the financial performance of banks in Nigeria as indicated by the R-squared value of 91%. Wangalwa, Matayo and Muturi (2018) investigated operational risk and performance of Supermarkets in Nairobi County and discovered that operational risk negatively affected ROA.

Effect of Credit Risk on Profit for the Year of Selected Manufacturing Firms in Nigeria

Credit risk significantly affect profit for the year of manufacturing firms in Nigeria due to the fact that R^2 of 0.047864 shows a goodness of fit, F-statistics of 0.770814 shows a significant effect, Durbin Watson stat of 1.731082 shows a positive auto correlation, while the probability value being 0.0094 was less than 0.05. This discovery is in coherence with the finding of (Muriithi, Muturi and Waweru 2016). The author researched on financial risk and financial performance of commercials banks in Kenya and revealed that credit and liquidity risks have significant effect on return on equity. In another study by (Nyasaka 2017) on management of credit risk and non-performing loans in the banks, the author revealed that non-performing loans negatively affects a bank's lending ability. This created a negative signaling effect on credit risk.

Effect of Liquidity Risk on Profit for the Year of Selected Manufacturing Firms in Nigeria

A significant effect exists between liquidity risk and profit for the year of manufacturing firms in Nigeria as R^2 of 0.047864 explains a goodness of fit, F-statistics of 0.770814 shows a significant effect, Durbin Watson stat of 1.731082 shows a positive autocorrelation while the probability of the t-statistics of 0.0475 was less than 0.05. The study agreed with the finding of Wani and Ahmad (2013) who conducted research on liquidity risk and performance of Indian insurance industry. They discovered that liquidity risk had a positive statistically significant relationship on return on asset of insurance industry in India.

Athanasoglou, Delis and Staikouras (2016) on the other hand studied the determinants of bank profitability in the South Easter Europe region over the period 2008-2012. They found out that liquidity risk has positive but not a significant effect on Return on Asset (ROA) of banks, while credit risk has negative and significant effect on banks' ROA. Moreover, capital has positive and also significant effect on ROA.

Conclusion

Managing risk is one of the basic tasks to be done, once it has been identified and known as an effective risk management leads to more balanced trade-off between risk and reward, to realize a better position in the future. This is based on the premise that globalization and internationalization have increased the risk of firms in the developing countries due to competition from within and outside the countries by either directly from other countries 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 especially as these risks have been proven to have different effects on financial performance of organizations.

Recommendation

In view of the findings, the following recommendations are made:

1. It is important for manufacturing companies in Nigeria to make a cost-benefit analysis of its day to day activities and how it affects performance before committing the firm's resources towards a specific goal.
2. For the growth of any organization there must be a policy (credit policy) which attracts the customers more to the firms' product, thereby the sales department are expected to make a clear and flexible knowledge understanding of the credit policy towards their customers, this will attract the sales revenue to the firm.
3. It is important for manufacturing companies in Nigeria to strike a balance between current assets and current liabilities strategies to balance between financial performance and the firm's profit for the year.

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APPENDIX 1

SEVENTEEN QUOTED FOOD AND BEVERAGE COMPANIES IN NIGERIA

1. Cadbury Nigeria Plc
2. Champion Breweries Plc
3. Flour Mills Nigeria Plc
4. Dangote Sugar Refinery
5. Golden Guinea Breweries Plc
6. Mcnichols Plc
7. Honeywell Flour Mill
8. International Breweries Plc
9. Multi – Trex Integrated Foods
10. Nestle Nigeria Plc
11. Nigeria Breweries
12. Northern Nigeria Flour Mills
13. Nascon Allied Industries Plc
14. Guinness Nigeria Plc
15. Unilever Nigeria Plc
16. Union Dicon Salt Plc
17. Bua Foods Plc
18. *Source: Nigerian Exchange Group*

Pooled data of Nigerian Breweries Plc, Guinness Nigeria Plc, Cadbury Nigeria Plc, Nestle Nigeria Plc and Champion Breweries Plc Nigeria

YR	COMPANIES	OR	CR	LR	PFY
2011	NB PLC	2.5574	3.5706	0.6088	38,434,033
2012	NB PLC	3.3425	4.2085	0.6549	38,042,714
2013	NB PLC	3.0672	3.2590	0.4515	43,080,349
2014	NB PLC	3.0759	4.1814	0.4970	42,520,253
2015	NB PLC	3.9353	4.8483	0.4087	38,049,518
2016	NB PLC	6.2760	7.1077	0.5147	28,396,777
2017	NB PLC	4.3470	6.1975	0.4277	33,009,292
2018	NB PLC	10.1790	11.4272	0.6146	19,401,169
2019	NB PLC	9.9826	117895	0.5658	16,104,763
2020	NB PLC	31.7264	41.1698	0.4406	7,525,621
2011	CHAMPION	1.2986	1.1118	0.3629	-1,825,759
2012	CHAMPION	1.6835	7.4680	0.0807	-1,336,690
2013	CHAMPION	1.8732	11.6654	0.0740	-1,178,025
2014	CHAMPION	3.3534	4.6879	0.4300	-754,523
2015	CHAMPION	26.4428	33.8972	0.7435	77,140
2016	CHAMPION	5.0943	4.1702	0.9810	530,389
2017	CHAMPION	6.0185	8.1954	0.3816	517,562
2018	CHAMPION	3.7957	12.4168	0.1972	-263,807
2019	CHAMPION	51.8864	30.6480	0.9115	168,508
2020	CHAMPION	14.4638	26.9747	0.8027	158,793
2011	NESTLE	3.4776	3.3050	0.8958	21,137,275
2012	NESTLE	3.1760	2.6146	1.0467	16,496,453
2013	NESTLE	3.4279	3.0376	1.2565	22,258,279
2014	NESTLE	3.6922	3.1536	0.8376	22,235,640
2015	NESTLE	3.5357	3.4219	0.8156	23,736,777
2016	NESTLE	13.4491	17.5026	0.8075	7,924,968
2017	NESTLE	4.2486	3.0224	0.9070	33,723,730

2018	NESTLE	3.5423	2.6068	0.8981	43,008,026
2019	NESTLE	3.4124	3.2356	0.8526	45,683,113
2020	NESTLE	4.2812	5.5312	0.9125	39,212,025
2011	GUINNESS	3.8275	2.2470	1.0315	17,927,934
2012	GUINNESS	4.7773	2.7505	3.4736	14,671,195
2013	GUINNESS	5.6354	16.3686	0.6287	11,863,726
2014	GUINNESS	6.0943	9.1903	0.9230	9,573,480
2015	GUINNESS	8.1196	9.4423	0.7269	7,794,899
2016	GUINNESS	32.6377	51.7167	0.7133	-2,015,886
2017	GUINNESS	41.0957	54.5943	0.8981	1,923,720
2018	GUINNESS	14.1137	9.8229	1.2745	6,717,605
2019	GUINNESS	16.6555	13.0759	1.2147	5,483,732
2020	GUINNESS	5.5973	5.6021	0.8907	-12,578,818
2011	CADBURY	3.8363	3.7281	0.3927	3,783,211
2012	CADBURY	4.5138	4.0976	1.6939	4,401,907
2013	CADBURY	4.1210	3.4876	1.2330	6,023,219
2014	CADBURY	12.0212	9.1952	0.8785	1,512,687
2015	CADBURY	24.5739	20.9802	1.0938	1,577,412
2016	CADBURY	11.1994	18.4982	1.0770	-562,870
2017	CADBURY	58.3596	37.9597	1.1365	299,998
2018	CADBURY	24.6373	13.0601	1.3910	823,085
2019	CADBURY	28.9502	14.2277	1.5325	1,070,845
2020	CADBURY	33.9926	22.6490	1.4082	931,827

Source: Financial Statement of the selected companies

NB:

OR = Operational Risk

CR = Credit Risk

LR = Liquidity Risk

PFY = Profit for the Year