

## *Original Paper*

# The Financial Performance of Nigerian Manufacturing Firms and Risk Management Practices

ABERE, OMOTAYO JOHNCALLY<sup>1\*</sup> & Saka, Shafau Toyin

<sup>1</sup> Department of Actuarial Science, Faculty of Management Sciences, University of Lagos, Nigeria

<sup>2</sup> Department of Insurance, School of Management and Business Studies, Lagos State University of Science and Technology, Nigeria

\* ABERE, OMOTAYO JOHNCALLY, E-mail: johncally68@yahoo.com

Received: March 15, 2023

Accepted: April 8, 2023

Online Published: April 18, 2023

doi:10.22158/ibes.v5n2p138

URL: <http://dx.doi.org/10.22158/ibes.v5n2p138>

### **Abstract**

*The techniques of risk management and the financial results of Nigerian manufacturing companies were the main topics of this essay. The study used a quantitative, cross-sectional research design. In order to analyze the data that was collected for the study, both descriptive and inferential methods were used. The hypotheses were tested using the regression method at the 0.05 or 5% level of significance. According to this study, risk management practices greatly improve the performance of manufacturing organizations, and Risk Awareness and control has a considerable impact on that performance. As a result of the study's findings, it was suggested that management in the manufacturing sector make sure their Risk Awareness and control is efficient and effective since it has an impact on how well manufacturing organizations operate. Manufacturing company management should guarantee that effective risk management practices, such as early risk identification, risk assessment, and efficient risk Control/Reduction system, are in place to assure an increase in the performance of the manufacturing sector.*

### **Keywords**

*Financial Performance, Risk Management Practices, Risk Awareness and control, Manufacturing Firms*

### **1. Introduction**

The manufacturing sector in Nigeria operates in the current unstable environment, which is fraught with numerous risks that could endanger its survival and success. These risks include political risk, credit risk, liquidity risk, foreign exchange risk, market risk, and interest rate risk, among others.

According to Siringi and Obange (2022), risk is the likelihood of fluctuation in future investment returns. The activities and steps done to ensure that an organization is aware of the dangers it confronts, makes educated decisions in managing these risks, and recognizes and seizes possible opportunities are collectively referred to as risk management. Careful examination of the fundamental ideas of minimizing loss, maximizing opportunity, and preparing for uncertainty are necessary for effective risk management (Mu, 2021).

Risk aversion is a common trait among humans, and risk and return are correlated. However, other studies point out that managers might not always assume that risk and return have a favorable relationship (Hussein, Hassan, & Faris, 2022). One of the fundamental principles of portfolio analysis, according to Klimzack (2022), is that risk and return are positively connected. Others, like Berinato (2022), however, demonstrate that there could be a negative association between accounting measures of risk and return. Thus, the study of risk management aids in resolving these inconsistencies. The key claim in all of these debates is that Risk Management (RM) raises the firm's value so long as the advantages of hedging outweigh the disadvantages. In addition, the companies can adopt a structured approach to risk management and create a culture of positive risk management framework to improve stakeholder relationships and confidence, accountability, the development of a learning culture, financial management and performance, resource allocation, compliance outcomes, and litigation risk (Transparency-International (TI), 2022).

At the company level, risk management is a topic that is now receiving a lot of attention. It has developed into a well-recognized management discipline and is now viewed as a crucial governance and management tool in both the public and private sectors. Although taking calculated and informed risks is a key component of every company's strategy, greater globalization and economic liberalization, unfavourable changes in macroeconomic factors, and heightened rivalry have exposed commercial enterprises to higher levels of risk. Despite the fact that risk management is seen as a crucial tool for governance and management, there is limited evidence from earlier empirical research linking risk management practices with performance of Manufacturing enterprises in Nigeria. Some recent studies, including those by Kegode (2022) on "The Challenges and Way Forward for the Manufacturing Sub-sector in Nigeria" and Okumu (2022) on "Reflections in the Management of Finance in the Manufacturing industry in Nigeria" and "Implications of Cogeneration Policy on Performance of Manufacturing Firms" focus on issues unrelated to the current problem of study but provide some insight into the Manufacturing sub-underwhelming sector's performance. According to the researchers' investigations, manufacturing companies continue to experience slow development in part as a result of poor management choices made in an unreliable investment climate.

According to reports, the manufacturing sector has mostly expanded in a protected environment with the goal of making it resilient and robust. However, as indicated by the low levels of output exports, the protracted protection inhibited technical advancement, export orientation, and interaction with the rest of the world. In addition, the Transparency International (TI) investigation from 2022 shows that

manufacturing companies owe farmers, the Nigeria Manufacturing Board (KSB), and other debtors a total of #50.17 billion as of June 2022. This indicates that the manufacturing companies have had serious cash flow and liquidity issues. Due to a lack of accountability, the manufacturing sector is in danger of collapsing. It should be highlighted that the Manufacturing sub-sector is substantially taxed through the Value Added Tax (VAT), CESS, and Manufacturing Development Levy, which has the effect of severely eroding gains made by farmers and Millers. The Manufacturing subsector is said to be plagued by low technological level, high production costs, operational, low market price, competition from cheap legally imported Manufacturing under Common Market for Eastern and South African States (COMESA) protocol, and political interference, according to CGD Bills Digest (2019) report. Since the early 1990s, the Nigerian economy has been gradually liberalized, which has brought the issues facing the sector to light. Poor management, inefficiency, low productivity, market distortions in the manufacturing sector, insufficient credit facilities, and recurrent droughts and fires were among the issues identified by a task force established by the ministry of agriculture to investigate the issues facing the sector in 2003. (Okumu, 2021)

## 2. Objective

The aim of this study is to investigate the relationship between financial performance and risk management strategies used by manufacturing companies in Nigeria. The following research goals are addressed by the study:

- 1) Ascertain how risk awareness and control affect the performance of manufacturing companies
- 2) Analyse the causal link between risk management practices and financial performance at the company level.

### 2.1 Hypotheses

H<sub>01</sub>: Risk awareness and control do not have significant effect on Performance of manufacturing companies

H<sub>02</sub>: Risk Management Practice does not significantly enhance performance of manufacturing companies.

The majority of the significant hazards that businesses are exposed to are taken into account from an integrative viewpoint in the study's investigation of managers' perceptions of and actions in the face of risk. For several reasons, this study is important. The research on the manufacturing sector sheds insight on how risk management strategies used by manufacturing companies affect the performance of the overall sector. The thorough examination of the relationship between risk management and performance is a step in the right direction in terms of formulating policy objectives for long-term growth in the manufacturing sector. Finally, the theory developed by the study may advance managerial risk-return trade-off judgments and add to the body of knowledge on risk management.

## 2.2 Literature Review

### 2.2.1 Risk Management

Risk management is the practice of effectively managing risks, including those that might present opportunities or threats to the goals of building projects (Hakkarainen, Kasanen, & Puttonen, 2020). Despite being extensively studied, risk still lacks a precise definition that is commonly accepted; instead, it is frequently just thought of as an undesirable outcome. Such a description gives rise to two ideas. First, it is widely agreed among experts that risk must be seen as having both good and negative consequences. Second, risk is tied to future project circumstances as well as occurrences, or particular points of action.

One of the most important project management techniques to use to guarantee a project's success is risk management. According to Gudbrand (2022), experience has demonstrated that stakeholders, not just project managers, must be critically concerned about risk management because it is one of the main reasons projects fail. Thus, risk management is directly related to the execution of a project successfully.

Because risk has always been a component of humankind and all human organizations, risk management has become widely used and popular in the scientific community. To ultimately appreciate why developing countries stand to gain much from such an approach, it is crucial to comprehend the roots of risk management as a concept. In light of this, this chapter will examine research on risk management, contrasting various points of view and looking at the advantages and restrictions of risk management (Fraser, Madura, & Weigand, 2020).

Probability mathematics' introduction prompted the development of risk management, a methodical and rational approach to dealing with risk. And has prompted the creation of more advanced quantitative approaches and procedures for the evaluation of risk exposure, likelihood, and effect. When there is a lack of data, the decision maker must assess the risk and estimate the costs and benefits in light of alternative actions. However, determining the likelihood of risk, exposure, and subsequent impact requires data (Wanyande, 2019).

Risk management is the process designed to protect a company's assets against losses that might occur while it is carrying out its operations, using a variety of tools (prevention, retention, insurance, etc.) at the most affordable prices. Additionally, risk management is described as the act of arranging, directing, and managing resources to meet predetermined goals when unforeseen positive or negative outcomes are likely (Shapira, 2019).

Another definition of risk management is a coordinated set of actions and procedures used to guide an organization and manage the numerous risks that might jeopardize its capacity to accomplish goals. Risk acceptance choices are made through the process of risk management, which also involves taking steps to lessen the effects or likelihood of a bad event occurring (John & Weitz, 2019).

### 2.2.2 Practice of Risk Management

Risk identification, risk assessment, risk treatment (management), and finally the control and monitoring of events or actions that may result in losses—most often financial losses—are all considered to be part of risk management practice.

A thorough and extensively used risk management method is described in project management literature (Flannery, 2019). By choosing the proper risk mitigation approach, the uncertainty of a risk event as well as the likelihood of occurrence or possible effect should be reduced. Sharpe (2019) divided the most popular risk reduction techniques into the following categories:

- 1) Avoidance: When there are other, lower-risk options accessible from a variety of alternatives and a risk is not embraced.
- 2) Retention/Acceptance: When a decision is made consciously to accept the results should the occurrence occur.
- 3) Control/Reduction - when an ongoing procedure of assessing and addressing the project's status is employed. The creation of a risk reduction strategy and subsequent monitoring of the plan are steps in this process. The most popular method of risk handling and management is this mitigation plan.
- 4) Transfer/Deflect - when the risk is divided among several people. Contractual risk shifting, performance-based rewards, insurance, warranties, and bonds are a few examples of ways to share the risk with others.

Since it is getting harder to foresee how a project will turn out in the end (Gupta, 2022) contractors can't guarantee that a project will be completed on schedule and under budget. This demonstrates how the majority of construction organizations are searching internationally for risk management strategies, tools, and processes. According to Gupta (2022), the following sources of risk are most common in construction projects: risks related to estimating error, delays brought on by the client and his representatives, designated subcontractors, designated suppliers, risks brought on by bad weather, risks related to clients' financial failure, risks related to cash-flow issues, and risks related to employee relations.

### 2.2.3 Risk Awareness and Control

Raising people's understanding of hazards, their possible effects, and methods for managing them is known as raising Risk Awareness and control. Risk Awareness and control is the active activity of recognizing dangers and working to minimize or eliminate them (Gudbrand, 2022).

Processes and procedures become something that must be followed blindly when there is a lack of Risk Awareness and control. When the cultural issue of Risk Awareness and control is not addressed, it encourages a compliance mentality that leads to complacency. When making decisions, the results might be fatal, with chance serving as the main line of defense (Henri & Peter, 2020).

Engaging the workforce is necessary to change an organization's culture to one that is more risk-aware. The operational hazards that frontline employees deal with on a daily basis are best understood by them. They are aware of which techniques are effective and which are frequently ignored. They had a higher

awareness of danger when they had just begun a particular operation. Even if they are aware of the hazards, they may have grown complacent over time and stopped taking them into account. Frontline workers' mindsets will shift from safety to risk as a result of discussions about and reinterpretations of operational hazards with them, making it easier for them to identify everyday dangers (Flannery, 2019). The expense of controlling the risk is weighed against the expected rewards when deciding how much risk to take on. Risk management requires trade-offs; thus, choices are always being made about which risks should be decreased, which should be increased, and by what methods (Independent variables). Corporate risk management is a shareholder-value enhancing activity that is evident in improved financial performance if the cost of utilizing it is less than the anticipated benefits (Dependent variable). This is consistent with the portfolio analysis hypothesis put forward by Sharpe (2019), which holds that risk and return are positively associated.

#### 2.2.4 Methodology

The study used a quantitative, cross-sectional research design. Given that diverse manufacturing organizations were given a structured questionnaire, a cross-sectional study approach is most suitable. One can gather quantitative data using a cross-sectional study methodology, which can then be quantitatively analyzed with descriptive and inferential statistics.

#### 2.2.5 Population of the Study

The senior employees of manufacturing businesses listed on the Nigerian Stock Exchange, who by virtue of their education and experience may be regarded as top management and are in charge of making decisions, make up the study's target group. 20 manufacturing businesses with a combined senior and managerial personnel strength of 1,589 were listed on the Nigerian Stock Exchange (NSE).

#### 2.2.6 Sample Size Determination

The study used the Taro Yamane formula in determining the sample size as follows:  $n = N/(1+N(e)^2)$ . Where  $n$  is the sample size,  $N$  is the population size and  $e$  is the level of significance respectively, which in this case shall be 0.05. A sample size of 320 was used as the sample for the study.

$$n = \frac{1,589}{1+1,589(0.05)^2}$$

$$n = 320$$

#### 2.2.7 Description of Research Instrument

On each topic, respondents gave honest, open responses by checking the box next to the solution that best suited their needs. The questionnaire was created using a 5-point Likert scale, with each response denoting whether the respondent is strongly agree (SA), agree (A), undecided (UD), disagree (D), or severely disagree (SD). The questionnaire's items, however, received the following ratings: 5, 4, 3, 2, and 1.

The researcher sought the advice of subject-matter experts to make sure that the questionnaire appropriately captured the study's key factors. The study's questionnaire was changed and adjusted.

The secondary data were gathered from the National Bureau of Statistics' (NBS) and Nigerian Stock Exchange's (NSE) records using the documentation approach (NES).

#### 2.2.8 Validity and Reliability of the Instrument

This comprises of two items, namely the validity of the questionnaire and its reliability respectively.

#### 2.3 Content Validity

To assess the appropriateness and relevancy of the assessment items, the instruments (questionnaire) were created using a 5-point Likert scale (1 = not relevant, 2 = somewhat relevant, 3 = fairly relevant, 4 = relevant, and 5 = extremely important). Following development, the tools were distributed to ten (10) specialists, including marketing, business, consulting, and psychometrics professionals. We evaluated the instruments with the help of experts and made changes in response to their feedback. The final questionnaire incorporates any comments that were made. This was in line with other research that stressed how important it is to accomplish this so that a researcher can evaluate the internal consistency, inter-item correlations, and factor structure. Table 1 shows the results reflecting Content Validity Index (CVI) for the questionnaire all above 0.7 taken as acceptable basing on Sekaran (2003).

**Table 1. CVI for Questionnaire**

Variable	Experts										Mean CVI
	1	2	3	4	5	6	7	8	9	10	
Risk Management	0.9	0.9	0.8	1	1	0.1	0.8	0.8	0.9	1	<b>0.82</b>
Risk Awareness and control	0.8	0.8	0.8	0.8	0.8	0.9	0.7	0.8	0.6	0.8	<b>0.78</b>

Source: Researchers Field Survey (2022).

#### 2.4 Reliability

The level of consistency that a research instrument produces after several trials is known as its reliability. After the questionnaire was created, a pilot research was carried out using the main sample, which consisted of 10 Senior Staff from Manufacturing Companies Listed on the Nigerian Stock Exchange, chosen at random. The primary goal of the preliminary study was to evaluate the instrument's item's clarity and relevance. There are several ways to assess an instrument's reliability, however in this study, the Cronbach Alpha approach was employed to assess the question's reliability. This approach has the advantage of just requiring one testing session, which removes chance mistake caused by varying test settings. Cronbach Alpha also assesses the internal consistency of a set of elements that are merged to form a single scale. It is a measure of how well the many items complement one another in measuring various facets of the same variable or quality, and it has the same meaning as a correlation coefficient. If Questionnaire's Cronbach Alpha coefficient is higher than 0.70, it is regarded as credible. According to the Cronbach alpha's general guidelines, >.9 is

considered excellent, >.8 is good, >.7 is acceptable, >.6 is debatable, >.5 is subpar, and .5 is unacceptable.

All of the variables have Cronbach's alpha coefficients above 0.7, as can be seen in table 2 below. so demonstrating the validity of the study's instrument.

**Table 2. Reliability Test**

Variable	Cronbach ( $\alpha$ )	alpha	Scale
Risk management	0.835		1 – 5
Risk Awareness and control	0.974		1 – 5

Source: Researchers Field Survey (2022).

### 2.5 Method of Data Analysis

In order to analyze the data that was collected for the study, both descriptive and inferential methods were used. The mean and standard deviation were two of the descriptive metrics that were employed in the analysis. The hypotheses were tested using the regression method at the 0.05 or 5% level of significance.

### 2.6 Model Specification

This will provide the researcher with the knowledge of the nature, and direction of the relationship between the variables.

$$\text{Perf} = \beta_0 + \beta_1 \text{RAWARE} + \varepsilon \quad \dots \text{Model 1}$$

$$\text{Perf} = \beta_0 + \beta_1 \text{RMP} + \varepsilon \quad \dots \text{Model 2}$$

Where:

Perf = Performance of Manufacturing Company

RAWARE = Risk awareness and control

RMP = Risk management Practice

$\beta_0$  - is a constant

$\varepsilon$  is the error term

### 2.7 Decision Rules

This study used the following rules as the basis for statistical decisions: If  $p < 0.05$ , the  $H_0$  to be rejected which implies that the independent variables have significant effect on the dependent variable, but if otherwise, we fail to reject the  $H_0$ .

## 3. Result and Discussion of Findings

### 3.1 Demographic Characteristics-Response Rate

There were 311 respondents to the questionnaire out of the planned sample size of 320. It is believed

that the use of a personal (self-administered) method to data collection contributed to the high response rate of 97.3%. More importantly, the researcher kept helpful connections with the respondents and the business owners, who were crucial in locating the pertinent sampling respondents and preserving positive connections with them, yielding great response rates. The response rate is summarized in Table 3:

**Table 3. Response Rate**

	No. of respondents	Percentage
Questionnaires Issued	320	100
Responses Received	311	97.3%
Responses Discarded	8	2.4%
Responses Used	303	97.4%

Source: Researchers Field Survey (2022).

### 3.2 Data Analysis

**Table 4. Multi-Collinearity Results**

Coefficients <sup>a</sup>							
Model	Unstandardized		Standardized			Collinearity Statistics	
	Coefficients		Coefficients			Tolerance	VIF
	B	Std. Error	Beta	t	Sig.		
(Constant)	.841	.421		3.321	.001		
Risk awareness and control	.321	.124	.233	3.314	.002	.365	2.615
Risk Management Practice	.241	.134	.214	2.336	.120	.006	2.364

a. Dependent Variable: Manufacturing Performance

Source: Field survey, 2022.

### 3.3 KMO and Bartlett's Sphericity Test

The Kaiser-Meyer-Olkin sample adequacy index and Bartlett's sphericity test were used to assess the study's viability; both approaches indicated the presence of an adequate intercorrelation when taking Nassiuma's criteria into account (2004). When data has a normal, multivariate distribution and the statistical significance of the extracted variables can be determined, the Maximum extraction approach was used since it best replicates population values Nassiuma (2004). The findings for all five variables

indicate that the KMO values are greater than 0.7. (Table 5). This suggests that our survey's questions, which have strong correlations with other items in their respective clusters to assess the underlying dimension, are sufficient to move on to the next round of analysis.

**Table 5. KMO and Bartlett's Results**

Variable	KMO	$\chi^2$	Bartlett's test		No of factors
			df	Sig	
Risk awareness and control	0.841	531.823	15	.001	2
Risk Management Practice	0.863	684.198	21	.001	2

**Source: Field survey, 2022.**

### 3.4 Test of Hypotheses

#### 3.4.1 Hypothesis One

$H_{01}$ : Risk awareness and control does not have significant effect on Performance of manufacturing companies.

**Table 6. Model Summary for Hypothesis One**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.518 <sup>a</sup>	.471	.495	77414100154.5414	1.51

a. Predictors: (Constant), Risk awareness and control

b. Dependent Variable: on performance of manufacturing companies

Source: SPSS version 25 output.

**Table 7. Coefficients for Hypothesis One**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	5747	36254111		1.210	.061
	Risk awareness and control	4.211	62411541	.144	2.141	.000

a. Dependent Variable: on Performance of manufacturing companies

Source: SPSS version 25 output.

The relationship between risk awareness, control and performance of manufacturing companies is about 47%. R being the determinant of correlation explains the extent to which the independent

variable could explain the dependent variable. R square as shown in model summary is about 51%, this implies that the independent variables can predict or determine dependent variables up to 51%. This simply means that the ability of risk awareness and control determines performance of manufacturing companies is about 51%.

This study revealed that a unit change in risk awareness and control account for about 3.14-unit change in performance of manufacturing companies. This study revealed that though Risk Awareness and control has a positive effect on Performance of manufacturing companies, however, the p value is higher than 0.05 level of significant ( $0.061 > 0.05$  p). Since p value ( $0.001 < 0.05$ ), we hereby reject the null hypothesis and conclude that Risk Awareness and control has significant effect on the performance of manufacturing companies.

### Hypothesis Two

$H_{02}$ : Risk Management Practice does not significantly enhance Performance of manufacturing companies.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.517 <sup>a</sup>	.577	.525	14741100.54	2.01

a. Predictors: (Constant), Risk Management Practice

b. Dependent Variable: Performance of manufacturing companies

Source: SPSS version 25 output.

Table 9. Coefficients for Hypothesis Two

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	714116329	14123109		1.210	.001
Risk Management Practice	1.141	1.210	.071	2.21	.009

a. Dependent Variable: Performance of manufacturing companies

Source: SPSS version 25 output.

As shown in the model summary, the relationship between Risk Management Practice and Performance of manufacturing companies is about 57%. R being the determinant of correlation explain the extent to which the independent variable could explain the dependent variable. R square as shown in model summary is about 51%, this implies that the independent variables can predict or determine dependent variables up to 51%. This simply means that the ability of Risk Management Practice to determine

Performance of manufacturing companies is about 51%.

This study revealed that a unit change in Risk Management Practice account for a significant change in Performance of manufacturing companies. This study revealed that Risk Management Practice significantly enhances Performance of manufacturing companies. Since p value ( $0.009 < 0.05$ ), we hereby reject the null hypothesis and conclude that Risk Management Practice significantly enhance Performance of manufacturing companies.

### 3.5 Summary of Findings

This study revealed that:

- 1) Risk awareness and control have significant effect on the performance of manufacturing companies.
- 2) This study revealed that Risk Management Practice significantly enhances Performance of manufacturing companies.

## 4. Conclusion

This paper focused on the effect of risk management practice on the performance of manufacturing companies in Nigeria. This paper empirically examined the effect of Risk Awareness and control on the performance of manufacturing companies and revealed that risk awareness and control have significant effect on the performance of manufacturing companies. In the same light, this study revealed that risk management practice significantly enhances performance of manufacturing companies.

## Recommendations

Arisen from the findings of this study, the study recommended that:

- 1) Management in the manufacturing sector should make sure that risk awareness and control are efficient and effective since they have an impact on how well manufacturing organizations function.
- 2) In order to improve the performance of manufacturing firms, management of manufacturing companies should make sure that effective risk management practices are in place, such as early risk identification, risk assessment, and effective risk Control/Reduction system.

## References

- Berinato, S. (2022, April 9). *Risk's rewards-are you on board with enterprise risk management?*  
Retrieved from Risk Management Practice. Retrieved from <http://www.cio.com>
- CGD-Bills-Digest. (2019). Stirring up the Manufacturing Industry. *Journal of Manufacturer*, 9(8), 321-339.
- Flannery, M. (2019). Market interest rates and commercial bank profitability: An empirical investigation. *Journal of Finance*, 20(11), 1005-1021.
- Fraser, D., Madura, J., & Weigand, R. (2020). Sources of Bank Interest Rate Risk. *Financial Review*, 17(12), 351-368.
- Gudbrand, R. (2022). Risk and risk management in Dairy Farming. *Journal of Agricultural Economics*,

- 5(2), 27-39.
- Gupta, P. (2022). Enterprise risk management-sub-optimality to optimality. *Journal of Insurance & Risk Management*, 17(9), 277-299.
- Hakkarainen, A., Kasanen, E., & Puttonen, V. (2020). Interest Rate Risk Management in Major Finnish Firms. *Journal of Finance*, 13(3), 255-268.
- Henri, S., & Peter, T. (2020). The theory and practice of corporate risk management. *Journal of Finance*, 4(3), 14-29.
- Hussein, A., Hassan, A., & Faris, A. (2022). Banks' Risk Management: A Comparison Study of UAE National and Foreign Banks. *The Journal of Risk Finance*, 19(8), 417-433. <https://doi.org/10.1111/1468-036X.00043>
- John, G., & Weitz, B. (2019). Forward integration into distribution: An empirical test of transaction cost analysis. *Journal of Law, Economics and Organization*, 4(2), 122-139.
- Kegode, P. (2022). The Challenges and way forward for the Manufacturing Sub-sector in Nigeria. *CGD digest*, 7(4), 95-115.
- Klimzack, K. (2022). Risk management theory-A comprehensive empirical assessment. *International Journal of Management Theory*, 45(11), 477-491.
- Mu, J. (2021). Effect of risk management strategy on NPD performance. *International Journal of Project Management*, 21(18), 367-377.
- Nassiuma, D. (2004). *Survey and sampling methods*. Nairobi: University of Nairobi press.
- Okumu, E. (2021). Reflections in the management of finance in the Manufacturing industry in Nigeria. *Ministry of Agriculture Journal*, 47(11), 204-233.
- Pandey, I. M. (2005). *Financial Management*. New Delhi: Vikas Publishing.
- Sekaran, U. (2003). *Research Methods for Business-A skill Building Approach*. New York: John Wiley & Sons.
- Shapira, Z. (2019). *Risk Taking: A Managerial Perspective*. Tel Aviv: Tcherikover Publishers.
- Sharpe, W. (2019). Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk. *Journal of Finance*, 19(8), 425-442. <https://doi.org/10.1111/j.1540-6261.1964.tb02865.x>
- Siringi, E., & Obange, N. (2022). Implications of cogeneration policy on performance of manufacturing firms. *International Journal of Statistics and Economics formerly Bulletin of statistics & economics*, 89(99), 144-165.
- Transparency-International-(TI). (2022, April 9). *Institutional Integrity Study on Manufacturing Industry in Nigeria*. Retrieved from Manufacturing Campaign for Change: <http://www.tiNigeria.org>
- Wanyande, D. (2020). Towards effective policy framework-A case of Nigerian Manufacturing Industry. *African journal of Political Science*, 3(2), 123-141.