

Effect of Risk-Reduction Strategy on Market Performance of Selected Oil and Gas Marketing Companies in Lagos State, Nigeria

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Abstract

The oil and gas industry plays a pivotal role in the global energy supply, but is increasingly intertwined with environmental concerns and energy transition challenges. In Nigeria, petroleum product marketing firms face multi-faceted risks, including pipeline vandalism, oil theft, tanker accidents, rising supply costs, and macro-economic pressures such as inflation, currency devaluation, and foreign exchange volatility. This study investigated the effect of risk-reduction strategy on the market performance of oil and gas marketing companies in Lagos, Nigeria. A cross-sectional research design was adopted, with 1,044 full-time employees of five selected oil and gas marketing companies constituting the population of the study. A sample size of 362 was calculated using the Krejcie and Morgan formula. Proportionate-stratified and purposive sampling techniques were employed, and data were collected through self-administered questionnaires. A total of 332 valid responses were retrieved, representing a 91.7% response rate. The data were analyzed using descriptive statistics and simple regression analysis. The findings revealed a significant positive effect of risk-reduction strategy on market performance ($\beta = 0.346$, $t = 9.432$, $p < 0.05$). The research concludes that effective risk-reduction strategy are critical to enhancing market performance in the volatile Nigerian oil and gas downstream sector. It recommends that industry management adopts proactive innovation by integrating alternative energy solutions and developing adaptive frameworks to enhance competitiveness and sustain performance in the rapidly changing environment of Lagos State, Nigeria.

Keywords: Supply chain disruptions, risk-reduction strategy, market performance, oil and gas marketing companies, Nigerian oil and gas industry

INTRODUCTION

We operate in a fast-paced, interconnected world of commerce, where supply chain is the circulatory system of business. It ensures that products are delivered efficiently to consumers, wherever they may be, in order to sustain firms' performance. Therefore, achieving and sustaining performance remain vital to all business entity, especially in the oil and gas industry, globally, considerably the petroleum marketing sector. This concern is perceived to have arisen from a business world that is typified by uncertainty, volatility, complexity and ambiguity. These characteristics are inherent in the business environment, causing petroleum product marketing firms to look inwards for unique strategies to adopt within their own internal space to enhance and maintain their position, identity or even surpass the status-quo. Hence, the core objective of most petroleum product marketing firms has, therefore, been to not only continue to survive but also, to take advantage of what globalization offer and move in new directions competitively. The predicament of achieving sustained and improved performance in oil and gas marketing sector centered on the ability of petroleum product marketing firms to distinguish themselves by providing unique products and services, well enough, to bring about above average returns. In addition, scholarly discourse revealed that improved and sustained performance may be elusive where the right supply chain risk strategy is not applied to business operations. The decline in business performance in oil and gas industry seems to cut across both the developed and emerging economies, with many world renowned oil and gas companies caught in the web and exhibiting huge decline in revenue arising from environmental factors such as energy transition due to climate change agitation, oil price fluctuation, aggressive competition from alternative mobility energy sources (electric cars, increase research in solar and wind source of energies as alternative to fossil fuels), divestments of multinational oil companies away from fossil fuels, and related to Nigeria; high inflation rate, foreign exchange volatility, currency devaluation, petroleum product theft, high supply chain costs and inefficiencies, to mention but a few (Arthur D Little [ADL], 2016; Daferighe & Edet, 2019; Ibrahim, 2023; Nsikan, Ekeins-Wilson, Ayandike, & Ortencia, 2019; Oladehinde, 2023, 2024, 2025a).

Review of extant literature indicates decline in performance of oil and gas marketing firms can be attributed to *factors such as industry environmental factors*, economic and cultural environments, *task environments*, natural and technological environments, social environments, and socio-political, law and security environments *combined with ineffective marketing management content, product marketing and poor or inadequate supply chain risk management*. (Daferighe & Edet 2019; Nsikan *et al.*, 2019; Oladehinde, 2025b; Owuso & Luke, 2020). Businesses in Nigeria, irrespective of industry affiliation are operating under increasing pressure due to various challenges among which are economic, environmental, ecosystems among others (Oladehinde, 2019; Onyekwelu, 2019), which in turn reduced firms' performance (Anyago, Onyekwelu, & Oladehinde, 2020; Oladehinde & Egboboh 2025; Cardinalstone Research, 2025; Uroko, 2025).

According to Anyago *et al.* (2020), Nsikan *et al.* (2019), Owuso and Poi (2019) these challenges in form of uncertainty and risk have affected the market performance of operators in petroleum downstream sector in Nigeria. Furthermore, Ernst and Young Nigeria [EY] (2015)

and other leading consulting firms reported that external factors are putting pressure on the industry to be more efficient and cost effective. Oil and gas operations such as exploration, production, transportation, distribution and marketing contain inherent risks: like severe environmental incidents, slips and trips or fatalities, oil tanker accidents and supply vulnerability (Aminu & Olawore, 2014; EY, 2015; Nsikan *et al.*, 2019). Anyaogu *et al.* (2020) and Nsikan *et al.* (2019) posited that majority of the oil and gas marketing firms in the petroleum downstream sector experienced headwinds (poor financial performance) because they were confronted by external environmental factors.

The persistent decline in market performance of oil and gas marketing firms echoes the academic and management interest in identifying the factors responsible for the prevailing poor performance. Studies in extant literature have focused on the implementation of supply chain risks strategy from different perspectives: Aminu and Olawore (2014) investigated challenges of distribution of premium motor spirit (PMS) in Federal Capital Territory (FCT), Abuja and environs, Nigeria; Mburu, Ngugi, and Ogollah (2015), studied the effect of risk identification management strategy on supply chain performance in manufacturing companies in Kenya; Nyang'au, Rotich, and Ngugi (2016), focused on influence of supply chain risk avoidance strategies on performance of food and beverage manufacturing firms in Kenya; Owuso and Poi (2019), investigated general risk mitigation strategy on sales performance of petroleum marketing firms in the downstream sector of the petroleum industry in Nigeria; Al-Doori (2019), investigated the impact of supply chain collaboration on performance in automotive industry; Owuso and Luke (2020), studied supply chain risk management and risk mitigation in the petroleum marketing firms in Rivers State; Muricho and Muli (2021), investigated the influence of supply chain resilience practices on the performance of food and beverages manufacturing firms in Kenya; Pono, Syamsu, Armayah, and Munizu (2020), focused on the effect of supply chain strategy toward competitive advantage, and company performance in Indonesia. However, none of these studies focused specifically on risk-reduction strategy and marketing performance in the oil and gas petroleum downstream industry in Lagos State, Nigeria, which necessitated why this study focused on this gap in literature.

Against this background, the purpose of this study is to answer the research question: What is the effect of risk-reduction strategy on market performance of selected oil and gas marketing companies in Lagos State, Nigeria? More specifically, the objective of this study is to investigate the effect of risk-reduction strategy on market performance of selected oil and gas marketing companies in Lagos State, Nigeria. That is this study attempts to identify the dimensions of risk-reduction strategy and ties them to the success of oil and gas marketing companies for the first time. Essentially, this study responds to the call for a new thinking about supply chain risk management process in oil and gas industry, specifically the downstream sector and draws inspiration from Al-Doori (2019), Ceryno, Scavarda, Klingebiel, and Yuzgulec (2013) and Guedes, Bittar, Di Serio, and Oliveira (2015) who stressed the need to examine supply chain risk management as a business process and its effects on firm market performance in the oil and gas/petroleum industry. In addition, this study is delimited to oil and gas downstream sector in Nigeria, because this sector is vital to the economy of any Nation (Arokodare, Asikhia, & Makinde, 2020).

The findings of this study are expected to assist practitioners in developing and deploying most appropriate risk-reduction strategies in mitigating supply chain disruptions whenever they occur and increasing practitioners' awareness of the need for collaboration with suppliers for the strategies to be effective.

The rest of this paper is structured as follows. First, the review of related literature, which involves conceptual, theoretical, and empirical review is discussed. Second, research methodology, which comprises research methods, description of the population, sampling plan, data collection, measures, and data analysis procedures are discussed. Third, results are presented and subsequently followed by the discussion of findings. Finally, the conclusion, recommendations, limitations, and suggestions for future studies are provided.

LITERATURE REVIEW

Market Performance

Dop and Racolta-Paina (2013) defined market performance as the measurement and assessment of marketing results using specific indicators. Salim, Saputraa, Hayua, and Febliansa (2021) described market performance (marketing performance) as organisation's ability to improve sales and enlarge market share as compared to its competitors. Shu-Hao, Chia-Ho, and Yu-Ching (2012), opined that market performance is a measurement system that concerns all aspects of firm's performance in the market place. Likewise, market performance refers to the relative effectiveness, efficiency and adaptability of an organisation in market domains and can be measured by product quality, market share, customer retention, behavioural loyalty, lower price sensitivity, and other measures of customer value generation (Morgan, 2012; Shu-Hao *et al.*, 2012).

Market performance as an aspect of organisational performance is giving marketing professionals intensifying pressure on the need to validate firm's investments or expenditure on marketing (Gao, 2010). According to Kokkinaki and Ambler (1999), market performance focuses on wide-ranging dimensions with financial contribution only as a sub-set. They further categorized market performance into financial and non-financial measures, which are: financial measures (inform of sales volume and turnover, profit, return on capital); competitive market measures (such as market share, relative price and share of promotions); consumer behaviour measures (inform of penetration and number of users, user and consumer loyalty and user gains and losses); consumer intermediate measures (such as awareness, attitudes, satisfaction, commitment, buying intentions and perceived quality); direct customer (trade) measures (such as distribution or availability, customer profitability, satisfaction and service quality).

The benefit of good market performance enables an organisation to gain new customers, launch fresh products, keep existing customers by offering lower priced products and equip the organisation to deal with short-term environmental fluctuations (Kaur & Mantok, 2015). As posited by Rumelt and Wensely (1981), and cited in the work of Kaur and Mantok (2015), firm's market performance positively leads to greater financial performance. Morgan, Clark, and Gooner (2002) and Rust, Ambler, Carpenter, Kumar, and Srivastava (2004), opined that market performance is a chain-like process through which marketing actions translate into

financial performance. In other words, marketing performance consist of sequential impacts such as customer impact, market impact, financial impact and impact on firm value (Rust *et al.*, 2004).

Review of extant literature revealed that company's success displayed by the market performance is the implementation of strategies used by the company in selling its products in the market (Kotler & Keller, 2009; Salim *et al.*, 2021; Song & Parry, 2009). Marketing performance is a frequently used factor to measure the impact of strategies existing in business organization (Ferdinand, 2003 as cited in Salim *et al.*, 2021). Company's success displayed by the marketing performance is the implementation of strategies used by the company in selling its products in the market.

Risk Reduction Strategy

Strategies are developed to be used by firm’s management, in order to grow business and achieve the intended organisational performance (Omar, *James*, & Kilika, 2018). Risk reduction strategy involves firms taking appropriate steps to reduce the disruption to acceptable threshold. It applies both to reduction of probability and consequence (Spikin, 2013; Tang & Tomlin, 2008). Examples of how to reduce the impact could be to have dual/multiple sources, an extra inventory, back-up sites/resources identified, parallel systems or to diversify, having risk managers and emergency teams appointed (Behnezhad, Connett, & Nair, 2013). For instance, when Hurricane Mitch in 1988, destroyed the source of Chiquita’s supply of its major raw material (Banana) in Central America, the company switched to a back-up supplier in another region (Panama). Similarly, Nestle Nigeria Plc., in trying to reduce its exposure to foreign exchange risk in 2016, sources about eighty (80) % of its raw materials locally, which gives it competitive edge over competitors that have their goods trapped at the Apapa Port (Augie, 2019). There are many different approaches to risk reduction discussed in supply chain management (SCM) literature, among which are; redundancy, flexibility, cooperation and control. The summary of the risk reduction methods is shown in Table 1.

Table 1: A summary of risk-reduction treatment methods

Risk-reduction Treatment Methods		Reference
Flexibility	Flexible Supply Base	Iakovou, Vlachos, & Xanthopoulos (2010), Tang (2006), Tang and Tomlin (2008).
	Flexible Product Configuration (Postponement)	Manuj and Mentzer (2008), Sheffi (2005a-b), Tang (2006), Tang and Tomlin (2008), Wagner and Bode (2008), Yang and Yang (2010).
	Flexible Manufacturing	Hale and Moberg (2005), Knemeyer, Zinn, Eroglu (2009), Ratick, Meacham, & Aoyama (2008), Schmitt and Snyder (2012), Sheffi (2005a), Stecke and Kumar (2009), Tang (2006), Tomlin (2006),

Risk-reduction Treatment Methods		Reference
		Wilson (2007).
	Flexible Transportation	Colicchia, Dallari, and Melacini (2010), Knemeyer et al. (2009), Stecke and Kumar (2009), Tang (2006).
Redundancy	Extra Inventory (Redundant Stock)	Hale and Moberg (2005), Knemeyer <i>et al.</i> (2009), Ratick <i>et al.</i> (2008), Schmitt and Snyder (2012), Sheffi (2005a), Stecke and Kumar (2009), Tang (2006), Wilson (2007).
	Backup Supplier	Knemeyer <i>et al.</i> (2009), Schmitt and Snyder (2012), Sodhi and Lee (2007), Wilson (2007).
	Overcapacity	Chopra and Sodhi (2004), Goh, Lim, and Meng (2007).
Control/ Incentives	Security Improvement	Knemeyer et al. (2009), Manuj and Mentzer (2008), Stecke and Kumar (2009).
	Demand Management	Stecke and Kumar (2009), Tang (2006), Tang and Tomlin (2008).
	Supplier Qualification Screening	Manuj and Mentzer (2008), Roth, Tsay, Pullman, and Gray. (2008), Sheffi (2005a-b), Sodhi and Lee (2007), Wagner and Bode (2008).
	Organisational Aspects	Knemeyer <i>et al.</i> (2009), Sheffi (2005a-b).
Cooperation	Resource Sharing	Hale and Moberg (2005), Tuncel and Alpan (2010).
	Collective Response Planning	Butner (2010), Chen, Sohal, and Prajogo (2013), Hallikas, Karvonen, Pulkkinen, Virolainen, and Tuominen (2004), Knemeyer <i>et al.</i> (2009), Stecke and Kumar (2009), Vanany, Zailani, and Pujawan (2009), VanderBok (2007).

Source: Adaptation from Behdani (2012)

Risk-Reduction Strategy and Market Performance

There have been so many studies Mburu *et al.* (2015), Owuso and Poi (2019) suggesting a positive and relationship between risk mitigation strategies and profit of petroleum marketing firm in Nigeria. Another study by Lambaino, Guyo, Odhiambo, and Getuno (2018) established that risk transfer strategy in form of insurance, outsourcing, sub-contracting, hedging and partnership, reduces market turbulence caused by supply chain disruption and subsequently led to improved sales. The study by Alaba (2021) examined business strategy and performance of oil and gas companies in Nigeria. The study revealed that oil and gas companies operate in a turbulent and highly competitive environment, and it is their desire to operate successfully by creating and delivering superior value to their customers while also learning how to adapt to a continuous and dynamic business environment with the aid of business strategy.

Outsourcing, one of the factors that reduce risk enables firms to efficiently spend resources and possibilities in development (Dehaghi, 2021). The findings of Dehaghi (2021) established that risk reduction dimension (outsourcing) often makes it possible to have access to advanced technologies and utilize modern technology, specialized experts and, as a result, improve the quality of service offering related to the firm and customers. Another study by Pono *et al.* (2020) revealed that supply chain strategy dimensions of sharing information, internal integration, external integration, agility, alignment, and adaptability factors positively influence market performance factors such as profit growth, sales growth, and market share growth. Similarly, Muricho and Muli (2021) who carried out an investigation on supply chain risk management, agility, supply chain collaboration and supply chain integration on the performance of Food and Beverages Manufacturing firms in Kenya. Their findings showed that supply chain risk management, agility, supply chain collaboration and supply chain integration had positive significant influence on the firms' performance.

The study of Al-Doori (2019) was able to established that information sharing and cooperation among supply chain members improves corporate performance. Another study by Nyang'au *et al.* (2016) found that risk-reduction strategy had significant relationship with firms' performance measured with five sub-variables; customer satisfaction, product quality, product variety, delivery service and competitive pricing. Corroboratively, the findings of Mafini and Muposhi (2017) established that an increase in the level of implementation of risk-reduction strategy, leads to an increase in the overall supply chain performance.

On the contrary, the study by Shou, Hu, Kang, Li, and Park (2018) revealed a negative impact of supply chain risk management strategy on financial performance due to up-front investment in excess inventories, extra capabilities, product designs, human resources and also costs of planning, monitoring and recovering. Moreover, the study by Owuso and Poi (2019) affirmed that risk reduction strategy has no significant effect on sales growth. Furthermore, the study by Zhao, Huo, Sun, and Zhao (2013) analysed both the relationship between supply chain resilience, supply chain integration and business performance. Their results showed that different types of supply chain risk management strategy have different impacts on different types of performance. The divergent results of the various scholars have left an inconclusive

position of the actual effect of risk-reduction strategy on market performance. Hence, this study hypothesized that:

H₀: Risk-reduction strategy (Figure 1) does not significantly affect market performance of selected oil and gas marketing companies in Lagos State, Nigeria.

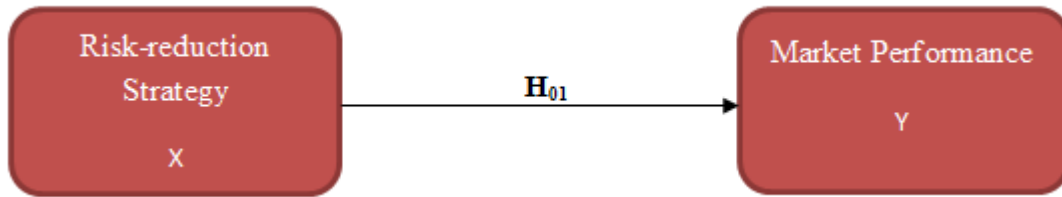


Figure 1: The structure of the Research Conceptual Model

METHODOLOGY

The study was conducted in Lagos State, Nigeria. Lagos State with a population of over 24 million, is the commercial and industrial hub and driver of economic growth of the country. It also plays host to the headquarters of all the major oil marketers.

A cross-sectional research design was adopted because data were collected once from respondents across the sampled oil and gas marketing companies. As Kumar (2011) notes, cross-sectional studies aim to obtain a representative sample by taking a cross-section of the study population at a single point in time. Several prior studies (Agorzie, Monday, & Aderemi, 2017; Mhelembe & Mafini, 2019; Peter, Rotich, & Ochiri, 2018) have confirmed the adequacy of this design for organisational and management research. The study population comprised 1,044 full-time employees drawn from five major oil and gas marketing companies in Nigeria's downstream petroleum industry. This include staff in Finance/Account, Marketing/Sales, Stores/Depot/Inventory Supply/Purchasing/Procurement, Logistics/Distribution/Transportation, and Production/Operation management departments, who are considered to be knowledgeable and familiar with supply chain management operations of their firms (Olawore, 2022). The selected companies were considered because they control more than 60% of the petroleum market (Arokodare *et al.*, 2020).

The companies selected—Total Nigeria Plc., OVH Energy Marketing Ltd. (formerly Oando Nigeria Oil Plc.), MRS Oil Plc., Ardova Plc. (formerly African Petroleum Plc.), and Conoil Nigeria Plc.—were chosen because they represent the leading indigenous and multinational players in the distribution, retail, and marketing of petroleum products across Nigeria (Alaba & Agbalajobi, 2014; Arokodare, 2019). These firms were also deliberately selected due to their nationwide operational coverage, large workforce, and their headquarters being located in Lagos State, which is the commercial hub of the country. This combination ensures that the sample reflects both the scale and diversity of Nigeria's oil and gas downstream operations

Additionally, the selected firms are public limited liability companies that are well-structured, listed on The Nigerian Stock Exchange, and are subject to the discipline of the capital market, which includes data veracity and corporate governance (Alaba, 2021).

The samples were drawn from five of the six members of Major Oil Marketers Association of Nigeria (MOMAN) now known as Major Energies Marketers Association of Nigeria (MEMAN) in Lagos State. The sampled companies were chosen based on size of their operations in supply of petroleum products and high concentration of their petrol stations outlet in Lagos and across the country. The population distribution of these companies is shown in Table 2 below

Table 2. The population of the study

No	Selected Oil and Gas Marketing companies	Population
1.	Total Nigeria Plc.	451
2.	Conoil Plc	201
3.	MRS Oil Nigeria Plc.	104
4.	Ardova Plc.	153
5.	OVH Energy Marketing Ltd	135
Total		1,044

Source: 2019 Annual Reports of the respective companies

Using the Krejcie and Morgan (1970) sampling table, a representative sample size of 362 staff was determined across the selected firms. A modified and structured questionnaire served as the primary data collection instrument. To establish validity, both content and construct validity were carefully assessed. Content validity was ensured by subjecting the questionnaire to expert review by academics in management sciences and practitioners in the oil and gas sector, who evaluated whether the items adequately covered the study constructs. Construct validity was assessed through a pilot study involving 30 employees from non-sampled oil and gas firms, where factor analysis confirmed that the items loaded appropriately onto their intended constructs.

To ensure reliability, internal consistency of the scales was tested using Cronbach’s alpha. The reliability coefficients obtained were 0.960 for macro-economic challenges and 0.879 for market performance. According to (Barbera, Nobert, & Pentecost, 2021). values above 0.70 indicate acceptable reliability, while values above 0.80 suggest good reliability. Given the descriptive nature of the research, previous measurement scales were used by adapting Olowoporoku (2021). The questionnaire designed for data collection was titled: “Supply Chain Management Challenges and Business Performance”. Thus, the values obtained demonstrate

that the measurement items are highly reliable. All variables were measured with six items on a six-point Likert scale ranging from Very High (VH = 6) to Very Low (VL = 1). This scale was chosen to reduce neutrality bias, improve response accuracy, and enhance the reliability of responses.

The hypothesis was tested using Simple Linear Regression Analysis with the Statistical Package for Social Science (SPSS) version 26 on the data generated from the field. This statistical technique was deemed appropriate as it allowed the researchers to determine both the direction and strength of the effect of independent variables on dependent variables, as conceptualised in the study model.

These set of staff were to be covered because of the objectives that this study intends to achieve. The sample size for each oil and gas companies is shown in Table 3. below:

Table 3. The sample size for the selected oil & gas marketing companies

No	Selected Oil and Gas Marketing companies	Population
6.	Total Nigeria Plc.	156
7.	Conoil Plc	70
8.	MRS Oil Nigeria Plc.	36
9.	Arдова Plc.	53
10.	OVH Energy Marketing Ltd	47
Total		362

Source: own elaboration

DATA ANALYSIS AND RESULTS

This analysis aims to determine the effect of the independent variables on the dependent variable. A total of 362 copies of the questionnaire were administered to employees of the five selected oil and gas marketing companies in Nigeria's downstream petroleum sector. Out of these, 332 copies were properly completed and returned, representing an overall response rate of $(332/362) \times 100 = 91.7\%$. The remaining 30 questionnaires (8.3%) were either not returned or not properly completed. According to Wimmer and Dominick (2006), this response rate is excellent, as it far exceeds the minimum threshold of 50% recommended by Mugenda and Mugenda (2003) for statistical analysis. In addition, the questionnaire was pre-tested on Mobile Oil Plc., to validate the instrument.

To ensure instrument quality, both content and construct validity were assessed, alongside reliability testing. The content validity of the instrument was confirmed through expert reviews, while construct validity was examined using factor analysis. As shown in Table 4, the Kaiser-Meyer-Olkin (KMO) values for all variables exceeded the recommended threshold of 0.50 (Kaiser, 1974). In addition, Bartlett’s Test of Sphericity was statistically significant ($p < 0.001$) for all variables, confirming the adequacy of the instrument to measure the study constructs.

Reliability was verified using Cronbach’s alpha, which indicated high internal consistency. Specifically, the coefficient for *Risk-Reduction Strategy* was **0.875**, while *Market Performance* recorded **0.879**. Both values exceed the 0.70 benchmark suggested by Nunnally and Bernstein (1994), thereby confirming the reliability of the scales.

Table 4: Results of Validity and Reliability Tests

Variables	Number of items	Reliability Results		Validity Results	
		Cronbach Alpha	KMO	Bartlett’s Test	Sig
Risk-reduction strategy	5	0.875	0.740	10.05	0.000
Market performance	5	0.879	0.733	9,75	0.000

Source: Researchers’ Computation (2022)

Descriptive statistics and linear regression analysis were conducted to examine the effect of risk-reduction strategy (independent variable) on market performance (dependent variable) among selected oil and gas marketing companies in Lagos State, Nigeria. The regression results are presented in Table 5. The analysis reveals a statistically significant and positive relationship between risk-reduction strategy and market performance, underscoring the importance of effective risk management practices in the oil and gas industry.

Table 5: Regression between risk-reduction strategy and market performance of selected oil and gas marketing companies in Lagos State, Nigeria.

Model one $MP = b_0 + b_1RR + u$		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
332	(Constant)	3.251	0.182		18.412	0.000
	Risk-reduction strategy	.346	0.037	0.461	9.432	0.000
a. Dependent Variable: Market Performance b. $R = 0.461$; $R^2 = 0.212$; $F(1, 330) = 88.98$, $p < 0.05$						

Source: Researchers’ Field Result (2022).

The results in Table 5 show that risk-reduction strategy has a positive and significant effect on market performance ($\beta = 0.346$, $t = 9.432$, $p < 0.05$). The R-value of 0.461 indicates a moderate positive correlation between the predictor and the outcome variable. The R^2 value of 0.212 implies that approximately 21.2% of the variance in market performance is explained by risk-reduction strategy. While this suggests that risk-reduction plays an important role in driving market performance, it also indicates that other unexamined factors account for the remaining 78.8% of the variation—highlighting opportunities for further research.

The standard error of 0.037 reflects the variability of the estimated regression coefficient ($\beta = 0.346$). A relatively small standard error indicates that the estimate is precise and that repeated sampling would likely yield similar coefficient values.

The regression model can therefore be expressed as:

$$MP=3.251+0.346RR + u \quad (1)$$

Where:

- MP = Market Performance
- RR = Risk-Reduction Strategy

The positive coefficient (0.346) indicates that a one-unit increase in risk-reduction strategy leads to an estimated 0.346 increase in market performance, holding other factors constant. The constant (3.251) implies that even in the absence of risk-reduction strategies, market performance would remain positive.

Based on these findings, the null hypothesis (H_0), which states that risk-reduction strategy does not significantly affect market performance of selected oil and gas marketing companies in Lagos State, is rejected.

Findings

The regression results indicate that risk-reduction strategy has a positive and significant effect on market performance among the selected oil and gas marketing companies in Lagos State, Nigeria. Conceptually, risk reduction involves firms taking proactive steps to minimize potential disruptions to an acceptable threshold, either by reducing the probability of occurrence or mitigating the consequences (Spikin, 2013; Tang & Tomlin, 2008).

Several approaches to risk reduction exist, including stock redundancy, flexibility, cooperation, and control. For example, redundancies across the supply chain help firms absorb disruptions, though they are often considered costly since they are utilized only during unexpected events (Sheffi, 2005a). Flexibility provides another approach, enabling firms to adapt quickly to abnormal situations and respond effectively to significant changes in supply chains (Lee, 2004). Evidence suggests that flexibility enhances firms' market performance relative to industry competitors (Manuj & Mentzer, 2008) and strengthens overall resilience by enabling firms to respond to unanticipated circumstances (Swafford, Ghosh, & Murthy, 2006).

The findings of this study align with several empirical studies that confirm the positive influence of risk-reduction strategies on business performance (Eckles, Hoyt, & Miller, 2014;

Gordon, Loeb, & Tseng, 2009; Kuria, Kwasira, & Waruguru, 2015; Mburu *et al.*, 2015; Mua, Peng, & MacLachlan, 2009; Nyang'au *et al.*, 2016; Tomas & Alcantara, 2013). However, contrasting results have been reported in other studies, which found no significant relationship between risk-reduction strategies and firm performance (Owuso & Poi, 2019; Shou *et al.*, 2018; Zhao *et al.*, 2013). These inconsistencies suggest that contextual and environmental factors may influence the effectiveness of such strategies.

From a theoretical perspective, the findings highlight the relevance of contingency and resource dependence theories. Business performance in the oil and gas sector appears contingent on the risk strategies firms adopt, while supply chain management practices are shaped by the prevailing economic and socio-political environment. In less developed economies, for example, behavioural and opportunistic tendencies of suppliers and consumers may further shape firms' decisions on which risk-reduction strategies to implement.

In summary, the study provides evidence that effective risk-reduction strategies contribute to improved market performance in the oil and gas downstream sector. However, the extent of their impact depends on contextual conditions, suggesting that firms must adapt their strategies to the unique risks of their operating environment.

CONCLUSION AND RECOMMENDATIONS

Risk-reduction strategy (indicators/dimensions) is a vital part of corporate strategy which forms part of the most important business processes and corporate culture (Spikin, 2013; Tang & Tomlin, 2008). This study has shed some lights on the business performance of selected oil and gas marketing companies in Lagos State towards risk strategies implementation. The findings of this study serve as a platform for academics, researchers and other interested parties to further understand the way oil and gas marketing companies listed on the Nigerian Stock Exchange (NGX) manage their business and supply chain activities. Accordingly, this study could serve as a framework for other players in the sectors in seeing the importance of risk-reduction strategy implementation in Nigeria's downstream sector. Overall, the findings of this study could be used as a guide in developing the appropriate framework and best practices that can be used to improve and add value to the firms.

The study recommends that risk management framework should be made a central part of the corporate governance structure. Oil and gas companies should establish a dedicated risk management team responsible for identifying, assessing, and mitigating risks most especially in supply chain management. Moreover, risk management practices should be integrated into the strategic planning process to ensure all-inclusive approach to organizational performance. Given the importance of risk management for performance, oil and gas companies could benefit from adopting advanced methods like predictive analytics to foresee potential risks and mitigate them pro-actively.

Future Research Directions

The study has several limitations. Data for this study were collected by conducting a cross-sectional survey. Such research designs rely on respondents' perceptions, which are subjective in nature. The study was able to mitigate this limitation through capturing five measures of market performance, using objective measures of performance is recommended in future studies. Future studies can employ longitudinal survey research design to capture the dynamics of risk-reduction strategy and overall firm performance measures. Also, future research direction can make use of study variables on broader sample of upstream oil and gas companies. This would help to reveal if this research can be replicated in an oil and gas upstream industry and generate similar results.

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