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Research Article

COST EFFICIENCY AND PROFITABILITY NEXUS IN NIGERIA'S UPSTREAM OIL AND GAS SECTOR

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Abstract

This study aims to analyze how upstream oil and gas businesses in Nigeria manage their operating costs and how it impacts their financial performance. It examines the effects on net profit margins of budgeting, cost reduction, operational efficiency improvements, and expenditure monitoring in a capital-intensive and highly volatile industry. This study employs a quantitative approach by examining secondary data collected from ten selected upstream oil businesses between 2019 and 2023. To examine the data, we used descriptive statistics, multiple regression, and correlation. The four methods contributed significantly to the increase in earnings, but operational efficiency had the most impact. Keeping track of your expenditure, sticking to your budget, and finding methods to save money might lead to much higher income. Improving financial performance and keeping profits high in the face of rising operational expenses and crude oil prices requires strategic management operations to include effective ways of cost control. Upstream oil and gas businesses in Nigeria need to keep expenses down if they want to generate money. Firms must improve their planning, constantly reduce costs, simplify processes, and monitor their spending, according to the study.

Keywords: Tax audit, field audit, desk audit and tax revenue Operational cost control, budgetary control, Cost reduction strategies, Operational efficiency, Expenditure monitoring, Profitability, Upstream oil and gas, Nigeria.

Introduction

Oil and gas still account for an important portion of Nigeria's gross domestic product. Revenue for the government is high, investment from outside sources is enticed, and job prospects are bolstered (OPEC, 2023). Activities that take place upstream include drilling, exploring, and producing. Aneke and Eteyen (2024) noted that capital-intensive businesses are susceptible to market price fluctuations, inefficient operations, and excessive production costs. A company's capacity to stay afloat in today's ever-changing market depends on its cost-cutting efforts.

Operational cost management is planning, monitoring, and regulating an organization's spending to optimize resource utilization and eliminate waste (Horngren et al., 2019). Constant nursing of operations, improvement of processes, elimination of needless expenditure, and careful monitoring of the budget are all possible components of cost management in upstream oil and gas activities. It doesn't matter how many things a company sells if they

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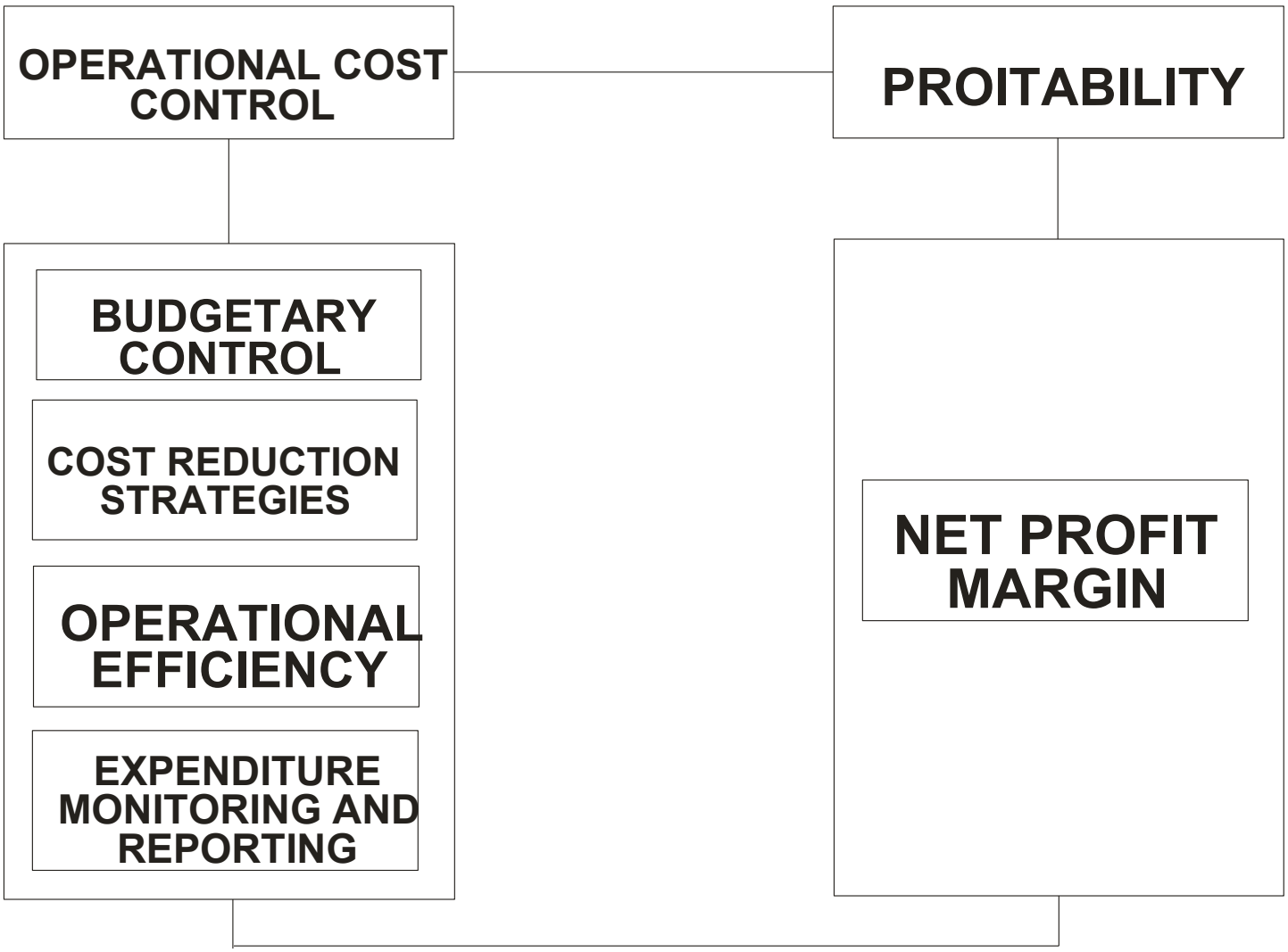

can't manage to minimize costs. Because of how they waste resources, their operational expenses have gone up (Sylvester et al., 2022).

Net profit margin is one common way to determine how profitable an organisation is. This indicator reveals the extent to which a company may recoup its expenditures from sales (Brigham & Ehrhardt, 2021). Akinleye and Olatunji (2025) point out that environmental restrictions, fluctuating crude oil prices, and ever-changing rules are some of the reasons upstream oil and gas companies struggle to make a profit. Decisions and regulations aimed at bolstering Nigeria's oil and gas industry should, therefore, take into account the impact of operational cost management on profitability.

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Conceptual Framework

Despite the importance of cost-cutting for upstream oil and gas companies in Nigeria, few studies have really looked at this issue in action. The majority of studies have concentrated on finance management in general and operations farther down the pipeline (Moses & Joshua, 2020). Budget control, cost reduction methods, operational efficiency, and expenditure oversight all have an impact on the profitability (net profit margin) of Nigerian upstream oil and gas firms. This research aims to address that information vacuum. In order to enhance the operational and financial performance of a high-capital, high-risk sector, the results should provide regulators, investors, and management with useful information.

Objective of the study

This research aims to shed light on how upstream gas and oil businesses in Nigeria might profitably manage their operating costs. We know what we're aiming for.

1. To assess the impact of budgetary control on the profitability of upstream oil and gas firms in Nigeria.
2. To evaluate the influence of cost reduction strategies on the profitability of upstream oil and gas firms in Nigeria.
3. To determine the effect of operational efficiency on the profitability of upstream oil and gas firms in Nigeria.
4. To examine the role of expenditure monitoring and reporting in enhancing the profitability of upstream oil and gas firms in Nigeria.

Research Questions

1. How does budgetary control affect the profitability of upstream oil and gas firms in Nigeria?
2. What is the impact of cost reduction strategies on the profitability of upstream oil and gas firms in Nigeria?

3. How does operational efficiency influence the profitability of upstream oil and gas firms in Nigeria? 4. What is the effect of expenditure monitoring and reporting on the profitability of upstream oil and gas firms in Nigeria?

Research Hypotheses

Ho_1: Budgetary control has no significant effect on the profitability of upstream oil and gas firms in Nigeria.

Ho_2: Cost reduction strategies do not significantly influence the profitability of upstream oil and gas firms in Nigeria.

Ho_3: Operational efficiency has no significant effect on the profitability of upstream oil and gas firms in Nigeria.

Ho_4: Expenditure monitoring and reporting do not have a significant effect on the profitability of upstream oil and gas firms in Nigeria.

Theoretical framework

Agency Theory

Agency theory was created by Jensen and Meckling in 1976. This theory states that the owners and shareholders of a company are its principles, while the management of the company is its agent. First assumption: managers

aren't flawless and may put their own interests ahead of owners', which might cause inefficiencies and increased expenses. Upstream oil and gas company management believe that drilling, exploring, and producing oil should not cost as much as possible. Profits could decline if management does not reduce expenses or if they act in a way that is unpopular with shareholders. A potential answer may be for authorities to intervene and make sure management are looking out for the company's and shareholders' best interests.

This is possible with effective operational cost management systems such budgetary monitoring, spending tracking, and cost reduction initiatives (Horngren et al., 2019). Agency theory supports the results by explaining why it's crucial to keep operational expenses low: it makes sure that managers' activities lead to higher profits instead of higher costs that aren't needed. This theoretical framework elucidates the causal relationship between cost management systems and organizational efficacy in capital-intensive industries, such as upstream oil and gas.

Contingency Theory

Organizational efficiency, according to contingency theory, which was first proposed by Fiedler (1964) and later developed by Donaldson (2001), depends on the congruence of internal procedures with external factors influencing the environment. Management strategies, particularly those aimed at reining in operational expenses; need to be contextualized according to the unique nature of each firm and its external environment. Profitability for upstream oil and gas businesses in Nigeria is impacted by external variables such as legislative adjustments, technical hurdles, and shifting oil prices, according to this theory. Cost management methods also play a role. Effective budget allocation, operational optimization, and expenditure monitoring are examples of situation-specific cost management strategies that may increase profitability even in the face of uncertainty in the environment (Donaldson, 2001). If you want to maximize your profits from operational cost management aspects like budgetary control, cost reduction, operational efficiency, and expenditure monitoring contingency theory provides a framework for looking at how to react to environmental factors. Managers in the upstream oil and gas industry must have the ability to adapt their decisions to different situations.

Operational Cost Control

According to Horngren et al. (2019), "operational cost control" is the process by which companies systematically plan, monitor, and manage their operational expenses in order to maximize profits and minimize losses. The operational budget of an upstream oil and gas business accounts for a significant chunk of the total budget. These costs are a result of administrative tasks, exploration, drilling, and production (Sylvester et al., 2022). Optimal utilization of resources, process simplification, and increased profitability are all outcomes of well-managed costs. This article outlines four fundamental features of operational cost control that may be used to improve the management of expenditures in upstream oil and gas activities:

Budgetary Control

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Budgetary control involves the preparation, implementation, and monitoring of budgets to compare actual expenditures against planned allocations. This shows you how much money you actually spent compared to how much you thought you would spend. It helps companies remain on budget by enabling them detect and address outliers early on (Horngren et al., 2019). Akinleye and Olatunji (2025) found that managing budgets helps the upstream oil and gas industry, which has capital-intensive projects, avoid going over budget and make more money overall.

Cost Reduction Strategies

Cost reduction strategies focus on minimizing unnecessary expenses while maintaining operational effectiveness .The purpose of cost-cutting methods is to keep the system working while getting rid of unnecessary costs. Some of these steps include using technology that save energy, making industrial processes more efficient, and improving supply chain operations (Akpe et al., 2024). Companies may still make more money by carefully cutting costs, even if they don't have to make more products or sales. If you want to make money, you need to reduce expenses.

Operational Efficiency

According to Akinleye and Olatunji (2025), operational efficiency refers to the degree to which a corporation makes efficient use of its human, financial, and technical resources to achieve its objectives with little time and effort wasted. To enhance operational efficiency, the upstream oil and gas sectors might standardize processes, optimize equipment, and use competent staff management. When a business is doing well, it may put more money into the bank since its production expenditures per unit are lower.

Expenditure Monitoring and Reporting

Rosemary et al. (2023) state that in order to monitor and report on expenditures, it is necessary to consistently track, record, and analyse all operational expenses. This will allow for the fast detection of inconsistencies and the implementation of remedial actions. Management can improve resource allocation, foresee possible cost restrictions, and make educated choices with access to clear information. In complicated operational situations, this improves accountability and makes strategic financial management easier.

Profitability

Profitability is a measure of a firm's ability to generate financial gain from its operations after accounting for all expenses (Brigham & Ehrhardt, 2021). It reflects the effectiveness of managerial decisions, operational strategies, and resource utilization in producing earnings. In the context of upstream oil and gas firms, profitability is critical because the industry is highly capital-intensive, exposed to volatile crude oil prices, and subject to significant operational risks (Akinleye & Olatunji, 2025). Understanding how operational cost control affects profitability enables firms to make strategic decisions that enhance financial performance and sustainability.

Net Profit Margin

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Revenue divided by sales is the net profit margin for a business. It reveals the efficiency with which a business makes money after deducting all operational, administrative, and financial expenses (Brigham & Ehrhardt, 2021). A high net profit margin indicates that a business is successfully managing its costs and turning a profit. If the margin is very thin, it might mean that the firm is under-profit, has excessive expenses, or has poor sales. Small errors in cost management could have a big effect on upstream oil and gas companies' overall profitability because of the substantial operational and capital expenditures they incur (Akinleye & Olatunji, 2025). The net profit margin is a good indicator of the financial health of an upstream oil and gas firm. To better understand how cost management enhances financial outcomes in a challenging and high-risk industry, this study seeks to establish a link between operational cost control measures (such as budgetary oversight, cost-cutting strategies, operational efficiency, and expenditure tracking) and profitability.

Empirical Literature Review

Operating expenses have a major bearing on the bottom lines of Nigerian oil and gas companies that are listed on public exchanges, say Akinleye and Olatunji (2025). They claim that the dispersed nature of operational costs makes it difficult to stay in business and turn a profit in this market. We reviewed the annual reports of five companies listed on the Nigerian Exchange Group between 2001 and 2021 and 2012 to find out how administrative, selling, and distribution expenditures affected their profitability. Another aspect that we considered was the company's size. Researchers used panel regression methods with fixed or random effects models according to the Hausman test's findings. Distribution costs, company size, and administrative expenses all had a positive and statistically significant correlation with financial performance. On the other hand, sales spending is extremely bad. According to the data, managing sales costs is the most difficult part, even if administrative and distribution costs could be better handled. The results suggest that oil and gas companies may improve their bottom lines by keeping a careful eye on and cutting down on their sales expenditures.

Sylvester et al. examined the methods used to control costs in offshore oil and gas operations in their research from 2022. Increasingly, efficient cost management methods were needed as a response to the problems with offshore manufacturing. With an emphasis on cost optimization throughout the petroleum production stages of field development projects, the research used quantitative and qualitative methodologies to ascertain what is most important in relation to cost performance. The data shows that transportation, staff, equipment, and maintenance make up a large chunk of production expenditures. The expenses of manufacturing have a significant impact on the price of tools and maintenance. The most cost-effective strategy, as shown by sensitivity analysis, is preventative maintenance, which entails making sure that equipment does not malfunction. The research concluded that with careful planning of operational and managerial cost management measures, offshore oil and gas production may increase resource efficiency and decrease financial losses.

Rosemary et al. (2023) reports that oil and gas companies in Nigeria considered the effect of operational expenses on profitability. The study aimed to determine the relationship between retained profits and spending on leases,

equipment, administration, and inventories. Secondary data was culled from three selected oil and gas companies' annual reports and financial statements via multiple regression analysis for the research. Equipment expenditures significantly reduce retained profits, but rental pricing significantly improves them, as shown in the research. Statistical research revealed that administrative and inventory expenses had little to no impact on retained profitability. If businesses want to boost their bottom lines, the research says they need to become better at monitoring running expenditures. Additionally, it requested that the highest-ranking Nigerian government officials work along with the oil and gas company's executives to create new regulations that would enhance efficiency while cutting expenses.

As the upstream hydrocarbon business in Nigeria dealt with declining crude oil prices and increasing exploration and production costs in 2020, Moses and Joshua studied the impact of cost-cutting strategies on workers in the sector. The study used quantitative methods to randomly analyze seven oil service companies. Only 60 out of 70 questionnaires were deemed valid replies. We used the Chi-square test to evaluate this data. In their pursuit of cost savings, Nigerian upstream oil and gas companies are not benefiting their stakeholders, the study found. The extensive content analysis conducted by Aneke and Eteyen (2024) aimed at enhancing real-time monitoring systems as viable options for reducing Non-Productive Time (NPT) during oil drilling in Nigeria. The purpose of this literature review was to investigate the impact of contemporary digital breakthroughs, such as the internet of things (IoT) and artificial intelligence (AI), on the effectiveness of exploratory operations. Some research suggests that predictive maintenance, drilling parameters, and operational issues might all be improved with realtime monitoring made possible by AI and the Internet of Things. A 30% decrease in non-productive time (NPT) may be the outcome. Learn more about the ever-changing oil and gas sector and get practical advice from this research. For example, it suggests ways Nigeria may improve its oil exploration methods to be more competitive internationally by investing in digital infrastructure and training its employees.

Keeping projects sustainable and profitable despite changing market circumstances was underlined by Akpe et al. (2024), who examined approaches for oil and gas engineering project cost management. The research assessed cost control utilizing a review-based technique over the whole project lifetime, from inception to completion. Valid financial management relies on accurate cost estimates, budget forecasts, and variance analysis, as shown by the results. Budgeting and decision-making may benefit from smart project management solutions, according to the report. These solutions include software that allows you to track spending in real-time and predictive analytics. We had to be well-prepared for the worst and conduct thorough risk assessments and other risk management activities if we were to keep expenses low. With the right execution, these tactics may enhance project management, reduce expenses, and boost profitability. Issues such as pricing fluctuations and changes to work area sizes necessitated compliance with the rules. The results demonstrate that oil and gas engineering projects may maintain reasonable prices with data-driven cost management, ongoing monitoring, transparent communication, and adaptable budgeting.

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Methodology

The purpose of this quantitative study was to examine, via the use of correlational and causal-comparative methodologies, how operational cost management affects the profitability of upstream oil and gas companies in Nigeria. The quantitative method is appropriate because it permits numerical variable measurement, objective correlation evaluation, and statistical generalization of results (Creswell & Creswell, 2018). In contrast to the causal-comparative approach, which aims to demonstrate that variations in cost control procedures do in fact lead to differences in financial performance among firms, the correlational design delves into the question of what kind of relationship exists between operational cost control dimensions and profitability indicators, as well as the direction of that relationship. Those who work in Nigeria's upstream oil and gas sector are all included in the study's population. The Department of Petroleum Resources indicated that around thirty (30) businesses nationwide has valid licenses to explore for and produce oil and gas (DPR, 2023). The study's primary emphasis is on operational, financial, and managerial staff engaged in cost management and strategic decision-making due to their extensive knowledge of operational procedures and profitability results. Ten (10) upstream oil and gas businesses with consistent and comprehensive financial and operational records were selected using a random sample approach for the years 2019–2023. This example technique could be more useful for selecting companies that fit certain criteria, such being involved in the upstream or providing audited financial records. In doing so, we ensure that the data is accurate and valuable (Etikan et al., 2016). We obtained the required information from the chosen organizations' accounting, finance, and operations departments. Audited financial statements (including income, balance sheet, and statement of financial position), operational budgets and reports, published annual reports, company websites, and, for publicly listed companies, the Nigerian Stock Exchange were among the primary sources of secondary data used in this study. Utilizing secondary data improves data accuracy and reduces response bias (Sekaran & Bougie, 2020) because it offers an impartial depiction of expenditures and income. In order to look for patterns and see whether the study's assumptions held water, the data was analyzed using descriptive and inferential statistics, including regression analysis and summary statistics.

Model Specification:

$P = \beta 0 + \beta_1 B\ C + \beta_2 C\ R + \beta_3 O\ E + \beta_4 E\ M + \epsilon$ Where:

P= Profitability

EM= Expenditure Monitoring

OP= Operational Efficiency

CR= Cost Reduction BC= Budgetary Control $\beta 0$= Intercept, $\beta 1 - \beta 4$= Regression coefficients, ϵ = Error term.

Descriptive Statistics of Study Variables Data presentation, Analysis and Discussion

Consequently, this supports the study's claim that Nigerian upstream oil and gas corporations might potentially boost their bottom lines by reducing operational expenses. The study's variables are analyzed using inferential

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and descriptive statistics to test the research hypotheses. In the outcomes analysis, previous empirical research is referenced.

A strong positive connection (R = 0.872) exists between profitability and cost containment. With a R^2 value of 0.760, we may deduce that EMR, BC, CRS, and OE account for 76% of the variance in NPM. Because the

ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	1625.45	4	406.36	38.43	0.000
Residual	513.25	45	11.40		
Total	2138.70	49			

Variable	B	Std. Error	Beta	t	Sig.(p-value)
(Constant)	12.543	2.312	5.43	0.000	

With a p-value below 0.05 and an F-Taken together, operational cost management's com Coefficients Table statistic of 38.43, the whole regression model is considered statistically significant. Opponents significantly impact bottom line results.

Number of predictors is included in the updated R^2 value of 0.743, the model fits well. There isn't much cause for alarm about autocorrelation if Durbin-Watson = 1.912.

Source: SPSSOUTPUT, 2026

Variable	N	Sum	Mean	Std. Deviation		Skewness		Kurtosis	
Budgetary Control (BC)	50	3850	77.00	8.50	0.21	2.05			
Cost Reduction Strategies (CRS)	50	3725	74.50	9.10	0.12	1.98			
Operational Efficiency (OE)	50	4000	80.00	7.25	-0.05	2.10			
Expenditure Monitoring (EMR)	50	3900	78.00	8.00	0.15	2.01			
Profitability (Net Profit Margin, NPM)	50	2750	55.00	6.50	-0.08	2.20			

Source: SPSSOUTPUT, 2026

Model Summary

Model	R	R Square	Adjusted R Square		Std. Error of the Estimate		Durbin-W atson
1	0.872	0.760	0.743	3.254	1.912		
Budgetary Control (BC)	0.295	0.084	0.312	3.51	0.001		
Cost Reduction Strategies (CRS)	0.248	0.091	0.257	2.73	0.009		
Operational Efficiency (OE)	0.367	0.082	0.401	4.48	0.000		
Expenditure Monitoring (EMR)	0.196	0.075	0.212	2.61	0.012		

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All independent factors are positively and statistically significantly related ($p < 0.05$). Better budget management, lower expenditures, simplified procedures, and careful expenditure monitoring all lead to increased profits. Net profit margin (Beta = 0.410) is a metric that places a premium on operational efficiency (OE). The constant (intercept) tells you the Net Profit Margin if you set all the independent variables to zero.

Discussion of Findings

Using four lenses—budgetary control, cost reduction methods, operational efficiency, and expenditure monitoring and reporting—the study analyzed how operational cost management affects the profitability of upstream oil and gas companies in Nigeria. If the net profit margin is any indication, reducing expenses may lead to a significant uptick in earnings.

Budgetary Control and Profitability: Careful budget management significantly increases profitability, as shown by the research. Our findings are in line with those of Akinleye and Olatunji (2025), who contended that upstream oil operations needed thorough budgeting procedures to prevent wasteful expenditure and make the most efficient use of available resources. Cost discipline allows businesses to increase their net profit margins by routinely comparing actual expenses with anticipated levels and making necessary adjustments.

Cost Reduction Strategies and Profitability: Cost reduction strategies were also found to have a major impact on your salary. After using systematic strategies to eliminate unnecessary expenditure via supply chain management, energy efficiency, and process optimization, companies saw an increase in their profit margins. Aneke and Eteyen (2024) argue that capital-intensive enterprises, like those in the upstream oil and gas sector, need to maintain costs low to stay stable, and these kinds of findings support their arguments. Businesses may improve their financial performance despite changes in oil prices by reducing expenses without affecting revenue.

Operational Efficiency and Profitability: Profitability is influenced by four aspects, the most significant of which is operational efficiency. Companies that increased operational efficiency, decreased waste, and made better use of resources had higher net profit margins, as shown in the study. The findings are in agreement with those of Rosemary et al. (2023), who emphasized operational efficiency as a key component impacting the profitability of oil exploration companies in Nigeria. Because it boosts their bottom line and decreases the cost of production per barrel, efficiency in operations is prioritized by companies in the upstream sector.

Expenditure Monitoring and Reporting and

Profitability: The study shows that keeping an eye on and reporting costs has a big effect on profits. Companies that were honest, quick, and explicit about how they spent their money were better at detecting mistakes, decreasing costs, and making wise financial decisions. Sylvester et al. (2022) say that managers can limit costs from going over budget and keep making money by continually keeping an eye on spending, particularly in the oil market, which is continuously changing.

Conclusion and Recommendations

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Examining potential avenues for improved cost management by Nigerian upstream oil and gas businesses was the driving force behind this study. Operating expense management has a significant impact on profitability, as shown by the outcomes. Prudent fiscal management, including reducing costs, simplifying operations, and keeping tabs on expenditure, may increase net profit margins. Efficiency in operations was paramount. This highlights the very necessary—and potentially expensive—need to optimize the use of resources, processes, and outputs in oil and gas operations. The study shows that when faced with external issues like new laws, changing crude oil prices, and higher operational costs, organizations with good cost management systems do better. Consistent with previous research, this one confirmed that systematic cost control may boost earnings and encourage long-term development even in the most cutthroat of markets. To sum up, in order for managers to do their responsibilities effectively and for the upstream oil and gas sector in Nigeria to achieve profitability, it is essential to reduce operating expenses. In light of all we've discovered, here are some recommendations:

1. Better Budget Control: In order to keep from going over budget, upstream oil companies should improve their techniques of budget planning and monitoring. Making ensuring resources are being utilized effectively may be achieved by checking for issues regularly and fixing them right away.
2. Look for methods to save money: Companies should assess their present spending patterns to find places to minimize costs. Methods like optimizing processes, making products more energy efficient, and using new technologies may help them reach this goal. They may save money on operations without lowering product quality by doing this.
3. Improve efficiency: Businesses could upgrade their equipment, educate their employees, and tweak their processes to make the most of what they have. Simplifying processes has the ability to greatly boost profit margins for upstream industries, which need large amounts of capital.
4. Advantage is better reporting and monitoring of expenses, which helps managers make better choices by giving them the most recent data on operational costs. For accurate, real-time spending tracking and rapid change detection, businesses should set up sophisticated monitoring systems.
5. Integrate strategic cost management into the company's values; cost awareness should permeate the whole organization, not just in relation to tools and processes. Everyone on staff should be able to see the apparent link between good cost management, streamlined processes, and financial success.

References

Ademola, G. T., & Bello, O. F. (2025). Operating Efficiency and Financial Performance of Nigerian Oil and Gas Firms. Iconic Research and Engineering Journals, 9(1), 796–804.

Tanko, A. A., Sani, I. N., Lawal, S. B., & Ibrahim, O. H. (2024). Development and Implementation of Cost Control Strategies in Oil and Gas Engineering Projects. Global Journal of Advanced Research and Reviews, 2(1), 1–22.

Okeke, A., & Ebiwari, O. E. (2024). Enhancing Operational Efficiency in Nigerian Oil Exploration: Impact of Real-Time Monitoring Technologies. Journal of Sustainable Development of Transport and Logistics, 9(2), 43–52.

Bradley, E. F., & Carter, M. C. (2021). Financial Management: Theory and Practice (16th ed.). Cengage Learning.

Anderson, J. W., & Thomas, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.). Sage Publications.

Nigerian Upstream Regulatory Commission (NURC). (2023). Annual Report on Oil and Gas Operations in Nigeria. Abuja: NURC.

Richardson, L. (2001). The Contingency Theory of Organizations. Sage Publications.

Ibrahim, S. A., Yusuf, M. A., & Bello, R. S. (2016). Comparison of Convenience and Purposive Sampling Techniques. American Journal of Theoretical and Applied Statistics, 5(1), 1–4.

Fielder, F. E. (1964). A Contingency Model of Leadership Effectiveness. Advances in Experimental Social Psychology, 1, 149–190.

Harrison, C. T., Smith, S. M., & Raj, P. (2019). Cost Accounting: A Managerial Emphasis (16th ed.). Pearson.

Jenson, M. C., & Marklin, W. H. (1976). Theory of the Firm: Managerial Behavior and Ownership Structure. Journal of Financial Economics, 3(4), 305–360.

Bassey, S. B., & Nnamdi, J. B. (2020). Impact of Cost Reduction Techniques on Stakeholders in Nigeria's Upstream Sector. International Journal of Innovative Research in Social Sciences, 7(1), 226–237.

Nwafor, U. N., Ikechukwu, I. I., & Okoli, A. B. (2023). Operational Expenses and Earnings of Oil and Gas Firms in Nigeria. Himalayan Journal of Economics and Business Management, 4(1), 1–9.

Sekoni, U., & Bamidele, R. (2020). Research Methods for Business: A Skill-Building Approach (8th ed.). Wiley.