Production-Sharing and Service Contracts in Nigeria's Upstream Petroleum Industry: How effective is its Chargeability, Cost Recovery and Financial Reporting Suitability

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ABSTRACT

Production-sharing contracts (PSCs) and risk service contracts are fundamental instruments for allocating financing risk, petroleum output, costs, and rewards between host governments and investors. A persistent accounting difficulty is how chargeable non-capital costs to current operations are recoverable under the governing contract. This article examines whether charging and recouping such costs in the current year produces effective accounting outcomes in the Nigerian upstream petroleum industry. It is a doctrinal and conceptual analysis—not a quantitative study—of Nigerian legislation, IFRS Accounting Standards and one illustrative historical petroleum contract. The analysis covers the Petroleum Industry Act 2021, a publicly available Nigerian PSC accounting procedure, International Financial Reporting Standards (IFRS), and relevant petroleum-fiscal literature. The article develops a dual-screen framework that separates (i) financial-reporting recognition from (ii) contractual recoverability. This distinction shows how a cost may qualify for recovery through cost oil or a service-contract payment without satisfying the criteria for recognition as an asset. Day-to-day operating costs are generally expensed when incurred. Exploration and evaluation, development, tangible production assets, borrowing costs, and decommissioning obligations are treated according to the applicable IFRS requirements and the facts of the transaction. The analysis finds that same-period recovery of properly verified non-capital costs can strengthen liquidity, matching, transparency, and investment incentives, and also create incentives for cost inflation, misclassification, affiliate overcharging, and premature recovery when contractual controls are weak. The paper therefore proposes a contract-to-ledger reconciliation architecture, cost-eligibility matrix, related-party benchmarking, and digital audit trail, with a clear separation of recoverability from capitalization decisions. The framework contributes to petroleum accounting by integrating contractual cost recovery, IFRS recognition, and Nigerian regulatory oversight in a single decision model.

Keywords: *production-sharing contract; risk service contract; non-capital costs; Oil cost; cost recovery; petroleum accounting; contract-to-ledger reconciliation; financial reporting; IFRS; Nigeria; and dual-screen accounting.*

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INTRODUCTION

Petroleum exploration and production are unusually capital intensive, technologically complex, and exposed to geological, commodity-price, political, environmental, and financing risks. Governments that own petroleum resources must therefore choose contractual and fiscal arrangements that attract capital and technical expertise while preserving public ownership and an equitable share of economic rent. Production-sharing contracts emerged as a response to the problem of an equitable share of economic rent. Under a typical PSC, the investor or contractor finances petroleum operations, bears substantial exploration risk, and, after commercial production, recovers eligible expenditures from an agreed portion of production before the balance is shared as petroleum profit. The precise mechanics vary by jurisdiction and by contract, but the pecuniary architecture of recovery of cost is central to the arrangement (Bindemann, 1999; Johnston, 1994; Lingard et al., 2020).

The article correctly places non-capital costs at the centre of this accounting problem. It identifies geological and geophysical activity, field operating expenses, intangible drilling costs, exploration and appraisal costs, abandonment-related charges, general office expenses, employee relocation, third-party and affiliate services, legal costs, head-office overheads, interest, insurance, duties and taxes as examples encountered in petroleum operations. Yet the accounting status of these items cannot be determined by a single ticket. Some may be current-period expenses; some may form part of exploration and evaluation assets; some may be directly attributable to qualifying tangible assets; some may create provisions or inventories; and others may be disallowed for contractual cost-recovery purposes even where they are legitimate financial-statement expenses. The key analytical task is therefore to separate the accounting question from the contractual reimbursement question.

Nigeria provides an important setting for this analysis. Section 85 of the Petroleum Industry Act (PIA) 2021 recognizes production-sharing contracts in which the financial risk-bearing party recovers costs from a share of production, and risk service contracts in which the risk-bearing party recovers costs through cash or in-kind payment from petroleum produced. This statutory distinction confirms that cost recovery is a contractual/fiscal mechanism and not, by itself, a rule for asset recognition or expense classification. The same cost may be recorded as an expense in the statement of profit or loss account while simultaneously qualifying for recovery through cost oil or a service-contract settlement, subject to the contract and applicable law. Contemporary Nigerian evidence reinforces the reporting dimension of this problem: IFRS 6 policy flexibility has been associated with inconsistent value relevance in listed oil-and-gas firms, while stronger IAS 37 recognition and disclosure compliance has been linked to higher financial-reporting quality (Kolawole et al., 2025; Olorunfemi & Tunji, 2025). Nigeria's 2024 roadmap for IFRS Sustainability Disclosure Standards also increases the need for traceable connections among operational expenditure, provisions and wider corporate reporting (Financial Reporting Council of Nigeria [FRCN], 2024). This article is a treatment of production-sharing accounting as a framework anchored in current IFRS principles and Nigeria's post-PIA lawful environment. It also clarifies that carried-interest accounting is a distinct contractual issue and should not be treated as synonymous with accounting for all PSCs.

Statement of the Problem

A recurring weakness in petroleum accounting is the tendency to use the words 'recoverable', 'recoupable', 'capital' and 'non-capital' as though they describe the same economic property. They do not. Financial reporting will always ask the question - whether expenditure meets the recognition and measurement requirements of a relevant accounting standard. A PSC accounting procedure asks whether the expenditure falls within a contractual recoverable cost category, whether it was incurred within the ring-fenced contract area, whether it was approved, whether it satisfies procurement and related-party rules, whether it is supported by documentation, and whether sufficient cost oil is available. Tax legislation may apply a third classification for deductibility or capital allowances. Confusing these layers can lead to over-capitalization, premature write-off, double recovery, understatement of costs, inflated cost oil, distorted profit oil and disputes between the contractor and the state. The historical Nigerian PSC reviewed for this article illustrates the source of the issue. Its accounting procedure defines non-capital costs as operating costs chargeable to current-year operations and provides that, for monthly cost-oil purposes, non-capital costs are the amounts recorded in the contractor's books for the month, with excess recoverable amounts carried forward where production proceeds are insufficient. Such contractual wording is economically important, but it does not replace IFRS recognition requirements. A contemporary accounting system must therefore reconcile contract accounts, statutory/fiscal accounts and IFRS general-ledger classifications.

Objectives and Research Questions

The general objective is to evaluate the effectiveness of accounting for current year charging and recovery of non-capital costs under production-sharing and service-contract arrangements, with reference to Nigeria. The specific objectives are to:

1. clarify the economic and accounting meaning of non-capital costs, cost oil and service-contract cost recovery;
2. distinguish contractual recoverability from IFRS capitalization or expense recognition;
3. identify the principal categories of current-period petroleum costs and the accounting standards that govern them;
4. assess the benefits and risks of same-period cost recoupment from the perspectives of operators, government and financial-statement users; and
5. develop a practical control and reconciliation framework for transparent recognition, verification and recovery of petroleum costs.

The article addresses four research questions:

(1) When should petroleum expenditure be treated as a current-period expense rather than an asset?
(2) When can an expense nevertheless be recoverable under a PSC or risk service contract?
(3) What makes same-year recovery effective or ineffective? and
(4) What accounting and governance controls can reduce misclassification and cost-inflation risk?

Conceptual Foundations

Production-sharing contracts

A PSC is a contractual structure in which the state retains sovereign ownership of petroleum resources while a contractor supplies finance, technology and operating capability. In broad form, production is first subjected to contractual or statutory allocations such as royalty petroleum; an agreed portion is then used to recover eligible costs; and the residual production is shared between the government and contractor as profit petroleum. The architecture shifts much of the exploration and financing risk to the contractor while allowing the host state to participate directly in production or its value. The economic literature emphasizes that the balance between cost recovery, profit sharing, royalties and taxation determines the progressivity, investment attractiveness and government take of the system (Bindemann, 1999; Johnston, 1994; Okoro et al., 2021; Pereira et al., 2023).

Risk service contracts and ordinary service contracts

A risk service contract differs from a PSC because the contractor's compensation is principally a service fee and reimbursement mechanism rather than an ownership share of petroleum profits. Under section 85 of the PIA 2021, the financial risk-bearing party under a risk service contract may recover costs by cash or in-kind payment from petroleum produced. In ordinary upstream service contracts—such as seismic acquisition, marine logistics, aviation, security, well services, facility maintenance and specialist engineering the service provider ordinarily recognizes revenue under IFRS 15 (IFRS Foundation, 2024b) as performance obligations are satisfied, while the oil-and-gas operator accounts for the purchased service according to the nature and purpose of the expenditure.

Cost oil, profit oil and the meaning of recoverability

Cost oil is not an accounting asset category. It is the portion of petroleum production, or the proceeds from that production, allocated under a PSC to reimburse eligible costs. Profit oil is the residual production available for sharing after the contractual sequence of deductions or allocations. Recoverability is therefore a right or mechanism created by contract and law. It says that a cost may be recouped; it does not necessarily say whether the original expenditure should be expensed, capitalized, inventoried, provided for, or recognized as another asset or liability in the financial statements.

Non-capital costs

In petroleum-contract terminology, non-capital costs commonly refer to operating costs chargeable to current operations rather than costs recovered through a multi-year capital-cost mechanism. The concept can be useful for cost-oil administration, but a modern accounting analysis must examine the substance of each cost. For example, routine repairs are normally expensed under IAS 16 (IFRS Foundation, 2024c), whereas a replacement component that satisfies asset-recognition criteria may be capitalized. Exploration expenditure may fall within an entity's IFRS 6 policy; interest directly attributable to a qualifying asset may be capitalized under IAS 23 (IFRS Foundation, 2024d) even when general interest would otherwise be expensed; and decommissioning obligations are recognized under IAS 37 (IFRS Foundation, 2024e) with related asset consequences where appropriate. Thus, 'non-capital' in a PSC schedule is not a universal financial-reporting conclusion. The distinction between financial-statement recognition, PSC cost recoverability, risk service cost recovery and tax treatment is summarized in Table 1.

Literature Review

The literature on petroleum fiscal systems consistently identifies cost recovery as a defining feature of PSC design. Johnston (1994) shows that PSC economics depends on the interaction of royalty, cost recovery, profit sharing, and tax provisions. Bindemann (1999) develops an economic analysis of production-sharing agreements that highlights risk allocation and the principal-agent relationship between host governments and foreign oil

Table 1: Core distinctions among petroleum contract and accounting concepts

Concept	Primary question	Typical accounting/fiscal consequence
Financial-statement recognition	What asset, liability, income, or expense is recognized under IFRS?	Determines statement of financial position and profit or loss presentation.
PSC cost recoverability	Is the expenditure eligible for reimbursement from cost petroleum under the contract?	Determines contractor entitlement and timing of cost recovery.
Risk service cost recovery	Is the expenditure reimbursable in cash or in kind under the service arrangement?	Determines reimbursement/fee settlement and potential receivable.
Tax deductibility/capital allowance	How is the expenditure treated under applicable tax law?	Determines current/deferred tax and fiscal liability.

Table 2: Benchmarking the dual-screen framework against recent Nigerian reporting literature

Recent source	Primary framework/focus	Relationship to this paper	Distinct contribution here
Kolawole et al. (2025)	IFRS 6 options and value relevance; firm-level econometric evidence.	Supports the need to control discretion in E&E accounting.	Adds a separate contract-eligibility screen and transaction-level reconciliation.
Olorunfemi & Tunji (2025)	IAS 37 recognition/disclosure compliance and reporting quality.	Supports disciplined provisions and transparent disclosures.	Separates provisions from cash recovery and contract claims.
Danujuma et al. (2025)	Integrated/ESG disclosure and financial performance.	Broadens accountability beyond conventional financial statements.	Links recoverable-cost evidence to ledger controls and audit trails.
Ucho et al. (2026)	PIA effects on PSC cost recovery and management budgeting.	Closest Nigerian focus on PIA-era recovery.	Formally combines IFRS recognition and contractual recovery as independent screens.

companies. These foundational studies explain why cost recovery is not a minor bookkeeping issue: its definition and timing directly affect both contractor cash flow and government petroleum revenue. More recently, scholars focus on the design and governance of cost-recovery systems. Lingard et al. (2020), comparing Southeast Asian jurisdictions, observe that local law and the PSC specify exploration, development, production, operating, decommissioning, and abandonment costs as recoverable. Pereira et al. (2023) document the evolution of production-sharing and cost-recovery systems across jurisdictions and emphasize that ownership and cost allocation distinguish PSCs from service-contract models. These studies support a contract-specific approach and caution against assuming that one country's cost-recovery categories can be transplanted mechanically into another system.

Nigerian scholars have concentrated principally on fiscal design, government takes, legal reform and contract administration. Okoro et al. (2021) evaluate the effects of Nigeria's deep-offshore PSC fiscal rules on contractor take, while Charles and Gloria (2021) examine legal and fiscal implications of Nigerian PSC arrangements. More recently, Ucho, Eze and Ezeh (2026) discuss the PIA's implications for PSC cost recovery and management budgeting in the Niger Delta. The literature shows sustained interest in the fiscal allocation of petroleum value, but there remains room for a clearer integration of contractual cost recovery with IFRS recognition and the accounting treatment of current-year non-capital expenditure. That gap is important because the accounting literature on extractive industries remains diverse. IFRS 6 permits (IFRS Foundation, 2024a) entities to develop accounting policies for exploration and evaluation expenditure within its scope, and the IASB decided in 2023 not to replace or substantially amend IFRS 6 recognition and measurement requirements. Consequently, entities may continue to apply different accounting policies for exploration and evaluation expenditure, making transparent policy disclosure, consistency and contract-to-ledger reconciliation especially important. Recent Nigerian studies sharpen this concern. Kolawole, Alabi, and Awotomilusi (2025) report that the accounting options permitted by IFRS 6 can weaken comparability and value relevance. Olorunfemi and Tunji (2025) find that IAS 37 recognition compliance and, especially, disclosure quality improve financial-reporting quality among listed Nigerian oil-and-gas companies. Danujuma, Ayogu, and Aloba (2025) extend the reporting lens to integrated environmental, social, and governance disclosure, while the FRCN (2024) roadmap signals a national shift toward connected financial and sustainability information. These works address disclosure quality, market relevance or corporate performance; none supplies a transaction-level method for keeping IFRS recognition separate from contractual cost recovery. Table 2 benchmarks the proposed dual-screen framework against recent Nigerian reporting literature and highlights its distinct contribution.

Methodology

The study adopts a qualitative doctrinal and conceptual research design. It does not claim to estimate a causal relationship from company-level data and does not fabricate empirical observations that were absent from the source manuscript. Primary legal and normative materials comprise the Petroleum Industry Act 2021, relevant IFRS Accounting Standards, and a publicly available Nigerian production-sharing contract and accounting procedure. Secondary materials comprise books and peer-reviewed or professionally reviewed literature on petroleum fiscal systems, PSC cost recovery, Nigerian petroleum regulation and extractive-industry accounting. The analytical procedure has four stages. First, the article extracts the contractual meaning of non-capital and recoverable costs. Second, it maps representative cost categories to the applicable IFRS recognition principles. Third, it evaluates same-period cost recovery using five effectiveness criteria: faithful representation, timing/liquidity, auditability, incentive compatibility and revenue neutrality between the state and contractor. Fourth, it develops a dual-screen control framework that can be implemented in petroleum accounting systems.
Because actual PSCs differ and many contractual schedules are confidential, the article's numerical example is illustrative rather than a representation of the commercial terms of any current Nigerian PSC. Contract-specific legal and tax advice remains necessary for an actual operation.

Nigerian Legal and Contractual Framework

Petroleum Industry Act 2021

The PIA 2021 modernized Nigeria's petroleum governance and expressly accommodates several contractual forms. Section 85 authorizes model contractual provisions for production-sharing contracts, profit-sharing contracts, risk service contracts, concession arrangements, and internationally recognized variations. Under the PSC, the financial risk-bearing party recovers costs from a share of production as established in the contract. Under a risk service contract, the risk-bearing party recovers costs by cash or in-kind payment from petroleum produced. Statutory language makes contractual recovery a core element of both forms while preserving a different compensation architecture. For new acreage, the PIA's fiscal schedules also impose rules that affect the amount and timing of recoverable petroleum. These provisions reinforce the need for accurate cost classification because every amount admitted to the cost-recovery pool potentially changes the residual petroleum available for government revenue and contractor profit sharing. Cost verification is therefore both an accounting-control issue and a public-finance issue.

Historical Nigerian PSC accounting procedure

A publicly available 1994 PSC between the Nigerian National Petroleum Corporation and Ashland Oil (Nigeria) Company Unlimited (Nigerian National Petroleum Corporation & Ashland Oil [NNPC–Ashland], 1994) provides a useful historical illustration. Its accounting procedure defines operating costs as comprising non-capital and capital costs; defines non-capital costs as costs chargeable to current-year operations; and, for monthly cost-oil allocation, treats the non-capital amount recorded in the contractor's books for the month as recoverable subject to the procedure. It also provides for unrecovered amounts to be carried forward when monthly proceeds are insufficient. The NNPC–Ashland (1994) historical procedure demonstrates why the original manuscript associated non-capital expenditure with current-year chargeability and recoupment.
However, this historical contract should not be read as the current Nigerian accounting standard. Modern financial statements must comply with applicable IFRS requirements, and contemporary PIA-era contracts may contain different cost limits, approval requirements, exclusions, ring-fencing rules, and audit procedures. The historical PSC is therefore used here as evidence of contractual terminology rather than as a substitute for current law or a universal model.

IFRS Accounting Framework for Petroleum Costs

IFRS 6: Exploration and evaluation expenditure

IFRS 6 applies to exploration and evaluation expenditures incurred after the entity has obtained legal rights to explore a specific area and before the technical feasibility and commercial viability of extraction are demonstrable. It permits an entity to develop an accounting policy for exploration and evaluation assets without applying all of the hierarchy otherwise required by IAS 8. This flexibility means that geological and geophysical expenditure, exploration drilling and related costs cannot simply be declared current expenses or capital costs without reference to the entity's established IFRS 6 policy and the stage of the project. Exploration and evaluation assets must also be tested for impairment when specified facts and circumstances indicate that carrying amount may exceed recoverable amount.

IAS 16: property, plant and equipment

IAS 16 requires capitalization when expenditure forms part of the cost of an item of property, plant and equipment that satisfies the recognition criteria. By contrast, day-to-day servicing costs are recognized in profit or loss as incurred. Routine labor, consumables, small replacement parts, repairs and maintenance therefore ordinarily remain current expenses. Major inspections, significant replacement components and directly attributable construction costs may be capitalized when the standard's criteria are satisfied. For petroleum operations, the accounting distinction depends on the nature and purpose of the work rather than on the contract's shorthand label.

IAS 38: intangible expenditure

IAS 38 requires expenditure on an intangible item to be expensed unless the recognition criteria for an intangible asset are satisfied. Research expenditure is recognized as an expense when incurred, whereas development expenditure is capitalized only when specified criteria are demonstrated. Petroleum exploration and evaluation within IFRS 6 is addressed under that standard, but other software, licenses and internally developed systems may require IAS 38 analysis.

IAS 23: Borrowing costs

IAS 23 requires borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset to be included in the cost of that asset. Other borrowing costs are expensed. Accordingly, a PSC schedule that lists 'interest expense' among potentially recoverable operating costs cannot determine the IFRS treatment by itself. The accountant must first determine whether the borrowing cost is directly attributable to a qualifying asset; the contract administrator must then determine whether that cost is recoverable under the contract.

IAS 37 and decommissioning obligations

Decommissioning and site-restoration obligations illustrate the importance of precise terminology. IAS 37 requires a provision where there is a present legal or constructive obligation, an outflow of resources is probable, and a reliable estimate can be made. The initial recognition of a decommissioning liability may also affect the cost of the related asset under other standards. A 'provision for abandonment' is therefore not simply an annual operating expense that can be recouped merely because it appears in a contractual list; its recognition and subsequent measurement must follow IAS 37 and, where relevant, IFRIC 1.

IFRS 15 and service-contract revenue

For specialized upstream service providers, IFRS 15 governs revenue from contracts with customers. Revenue is recognized when or as performance obligations are satisfied. Many recurring services are recognized over time where the customer simultaneously receives and consumes the benefits as the provider performs. The operator purchasing the service separately decides whether the cost is an operating expense, an exploration and evaluation cost, part of a production asset, inventory-related cost or another category. Table 3 summarizes the indicative financial-reporting treatment, contractual recovery considerations and key cautions associated with common petroleum cost categories.

Table 3: Indicative treatment of common petroleum cost categories

Cost category	Likely financial-reporting starting point	PSC/service-contract recovery question	Key caution
Routine field operations and maintenance	Expense as incurred unless a replacement/major inspection qualifies for capitalization under IAS 16.	Recoverable if contract permits and documentation/approval requirements are met.	Do not capitalize routine servicing merely because it is recoverable.
Geological/geophysical surveys	Assess under IFRS 6 policy and project stage; some entities expense, others capitalize eligible E&E costs.	May be recoverable as exploration cost, subject to contract.	Contract classification does not override IFRS 6 policy.
Exploratory/appraisal drilling	Assess under IFRS 6 until technical feasibility and commercial viability are demonstrable.	Usually subject to exploration/appraisal cost provisions and ring fence.	Dry-hole and successful-well outcomes may have different policy consequences.
Development of drilling and production facilities	Capitalize qualifying development/PPE expenditure when recognition criteria are met.	Often recovered through capital-cost mechanism rather than immediate non-capital pool.	Avoid misclassifying tangible equipment as current expense.
Third-party/affiliate services and overhead	Expense or capitalize according to the activity provided; allocate shared costs only where supportable.	Recoverability depends on approved scope, procurement evidence, contract ceilings and arm's-length tests.	Service invoices do not decide classification; related-party charges require enhanced audit.
Borrowing costs/interest	Capitalize only when IAS 23 criteria for a qualifying asset are satisfied; otherwise, expense.	Recoverability depends on contract and may be restricted.	Do not equate financing charge with recoverable operating cost.
Insurance, legal and administrative costs	Usually, expense unless directly attributable to creating/constructing an asset.	May be recoverable if petroleum-operation related and not excluded.	General corporate costs require allocation discipline.
Decommissioning/abandonment	Recognize provision under IAS 37 when criteria are met; related asset treatment may apply.	Recovery/funding depends on contract and decommissioning regime.	The provision is not the same as cash expenditure.
Taxes, duties and levies	Expense, capitalize into asset cost, or account under relevant tax standard depending on nature.	Contract may exclude or separately allocate certain taxes/royalties.	Avoid double recovery through both cost oil and tax/royalty mechanisms.

The Dual-Screen Framework: Recognition First, Recoverability Second

The principal contribution of this article is a dual-screen framework. Every petroleum expenditure should pass through two independent but reconciled decision screens. The first is the financial-reporting screen; the second is the contractual-recovery screen. A third tax screen may be layered onto the process where necessary, but tax treatment should likewise remain analytically separate. The resulting recognition and recoverability sequence is illustrated in (Figure 1).

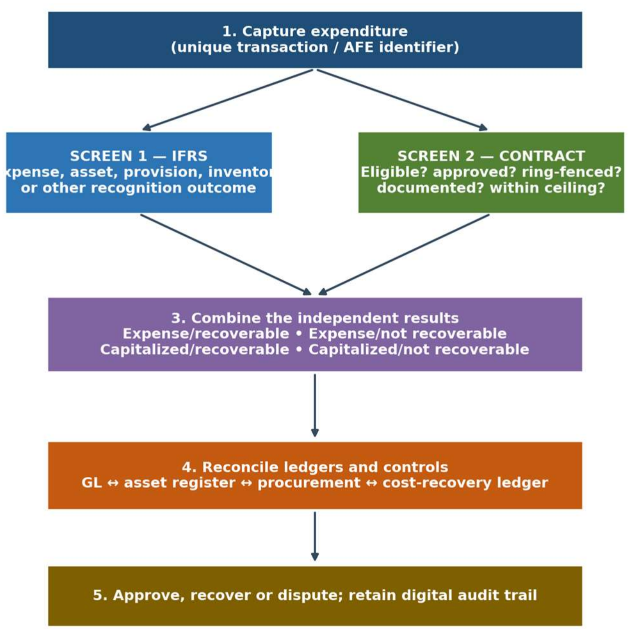

Figure 1: Dual-screen decision process for petroleum expenditure

Screen A: Financial-reporting recognition

1. Identify the nature of the expenditure and the activity that generated it: exploration, evaluation, development, production, maintenance, administration, financing, decommissioning or service delivery.
2. Identify the applicable IFRS standard or accounting policy: IFRS 6, IAS 16, IAS 38, IAS 23, IAS 37, IFRS 15, IAS 2 or another standard as appropriate.
3. Determine whether the expenditure satisfies asset-recognition criteria, creates a liability/provision, belongs in inventory, or should be recognized in profit or loss.
4. Determine the appropriate measurement basis, depreciation/depletion/amortization, and impairment for disclosure consequences.

Screen B: Contractual recoverability

1. Confirm that the cost falls within the definition of petroleum operations and an eligible cost category under the PSC or service contract.
2. Confirm that the expenditure relates to the correct contract area and accounting period and respects ring-fencing rules.
3. Verify work programme and budget approval, procurement compliance, authority-for-expenditure documentation and any management-committee approval thresholds.
4. Test affiliate charges, overhead allocations, foreign-exchange components, interest, insurance and taxes against contract-specific restrictions or ceilings.
5. Determine the amount currently recoverable, the applicable cost-recovery limit, and any balance to carry forward to future periods.

The two screens generate four possible outcomes: (1) expense and recoverable; (2) expense and non-recoverable; (3) capitalized and recoverable; and (4) capitalized and non-recoverable. These outcomes demonstrate why a binary capital/non-capital classification is insufficient for contemporary petroleum accounting. The four possible combinations of financial-reporting treatment and contractual recoverability are presented in Table 4.

Accounting for Current-Year Non-Capital Cost Recovery

Expense recognition does not disappear because reimbursement is expected

Where an expenditure is a current-period operating expense under IFRS, an expected contractual recovery does not normally transform the expenditure into property, plant and equipment. The gross expense remains classified according to its nature or function, while the recovery mechanism is accounted for according to the rights created by the contract and the entity's presentation policy. Depending on the arrangement, the recovery may affect entitlement to production, revenue allocation, receivables, contract balances or the measurement of the entity's net petroleum entitlement. The precise journal entries depend on whether the entity is accounting for gross production, net entitlement, a reimbursement receivable or another contractual structure.

Timing and matching

Same-period recovery can improve economic matching when the cost is incurred to produce the current period's output, and the contract permits immediate recovery from that output. It can reduce the contractor's working-capital exposure and lower the financing burden of field operations. However, accounting matching is not a

Table 4: Dual-screen outcome matrix

Financial-reporting result	Contract result	Illustrative consequence
Expense	Recoverable	Charge profit or loss under IFRS; record/settle contractual recovery entitlement according to the arrangement; maintain an audit trail.
Expense	Not recoverable	Charge profit or loss; contractor bears cost economically unless another reimbursement right exists.
Capitalized	Recoverable	Recognize qualifying assets and recover cost according to contractual mechanism/timing; do not accelerate depreciation simply because reimbursement occurs.
Capitalized	Not recoverable	Recognize assets if IFRS criteria are met, but the contractor finances the cost without PSC/service reimbursement; assess economics and impairment normally.

license to defer or capitalize ordinary costs. IFRS recognition takes precedence; the cost-recovery ledger then determines how the economic burden is shared in the contract.

Carry-forward of unrecovered costs

The cost may be contractually eligible yet not recoverable in the same month or year because cost petroleum is insufficient, a cost limit applies, production is interrupted, or the expenditure awaits audit resolution. Contractual carry-forward should therefore be tracked separately from asset carrying amount. An unrecovered cost schedule is a contract-administration record and does not automatically constitute an IFRS financial asset. Recognition of any receivable or other asset depends on the enforceable contractual right and applicable recognition requirements.

Carried Interests: A Related but Distinct Issue

The original manuscript referred to the 'carrying party' as the principal focus of PSC accounting. That proposition requires qualification. A carried interest is a specific arrangement in which one party funds another party's share of exploration, development, or operating costs and is compensated for additional production, cash flows or other agreed considerations. It may arise within a joint arrangement or petroleum venture, but it is not an inherent feature of every PSC. Accounting for carried interests depends on the facts and circumstances. Professional extractive-industry guidance notes that the carrying party may capitalize costs associated with the carried interest in some structures and recover them through an additional share of production, while financing-like arrangements may require different treatment. Consequently, the article retains the useful concept from the source draft but repositions it as a separate accounting issue rather than a universal PSC principle.

Service-Contract Accounting

The service provider

Specialized upstream contractors frequently perform seismic acquisition, drilling support, aviation and marine transport, security, facility maintenance, equipment supply, logistics, engineering, well services and general mobilization. The service agreement should specify scope, performance obligations, pricing, currency, payment milestones, reimbursable costs, variations, taxes, duration, termination, and dispute resolution. Under IFRS 15, the service provider identifies the contract and performance obligations, determines and allocates the transaction price, and recognizes revenue when or as the promised services transfer to the customer.

The operator/customer

The oil-and-gas operator records the purchased service based on what the service accomplishes. A seismic contractor's invoice may be included in exploration and evaluation expenditure under the operator's IFRS 6 policy; a maintenance contractor's invoice may be recorded as a current operating expense; an engineering contractor's invoice may be directly attributable to the construction of a production facility and capitalized under IAS 16 (IFRS Foundation, 2024c); and legal services may be expensed unless they are directly attributable to an asset or transaction for which another standard requires inclusion in cost. Payment currency, whether naira, US dollars, or a split arrangement, does not determine the classification, although foreign-exchange accounting and contract valuation may affect measurement.

Risk service contracts

In a risk service contract, the contractor may finance upstream work and recover costs plus an agreed remuneration mechanism. This creates heightened importance for defining the boundary between reimbursable costs and the service fee. If both are poorly specified, the parties may double count overhead, finance costs or profit elements. A publishable accounting policy should therefore disclose how reimbursable pass-through costs, variable consideration, performance-based fees and foreign-currency components are identified and measured.

Table 5: Illustrative contract-to-ledger reconciliation (US$ million)

Item	IFRS treatment	Current contract recovery	Comment
Routine field operations – 1.8	Expense	1.8	Classic expense-and-recoverable outcome.
Geological/E&E activity – 0.4	Per IFRS 6 policy	0.4	Recognition policy and recoverability assessed separately.
Development expenditure – 0.8	Capitalized	0.2	Only contractual current-period recovery amount enters cost-oil claim.
Total	Mixed	2.4	Cost-oil total is a contract measure, not a single financial statement expense.

Illustrative Numerical Application

Consider a hypothetical PSC for one monthly accounting period. The example is deliberately simplified and does not reproduce the fiscal terms of any current Nigerian PSC. Assume gross petroleum proceeds of US$10.0 million. After contractual royalty and other prior allocations of US$1.0 million, US$9.0 million remains. During the month, the contractor incurs US$1.8 million of routine field operating expenditure that is both expensed under IFRS and contractually recoverable; US$0.4 million of eligible geological expenditure treated under its IFRS 6 policy; and US$0.8 million of development expenditure capitalized under IAS 16 (IFRS Foundation, 2024c)/industry policy, of which only US$0.2 million is recoverable in the current month under the contract's capital-cost schedule. Assume the contract permits a maximum current cost-oil allocation of US$3.0 million.

The current contractual recovery claim is US$2.4 million (US$1.8m + US$0.4m + US$0.2m), leaving US$0.6 million of unused cost-oil capacity. The financial statements do not record all US$2.4 million as a single 'cost-oil expense.' Instead, the operating component is recognized in profit or loss; the geological component follows the entity's IFRS 6 policy; and the development component remains capitalized and is depreciated/depleted according to the relevant accounting policy. Contract accounts separately show US$2.4 million as eligible for current recovery. If only US$2.0 million of cost oil were available, US$0.4 million would be carried forward contractually, but that carry-forward would not by itself justify recording a new IFRS asset unless an enforceable right satisfying the applicable recognition criteria exists. The contract-to-ledger reconciliation arising from this illustrative example is presented in Table 5.

When Is Same-Year Recovery Effective?

Liquidity and investment efficiency

Same-year recovery is economically effective when it reduces unnecessary financing of routine petroleum operations and preserves the contractor's capacity to fund exploration, maintenance and production. The contractor bears substantial upfront risk in a PSC; timely recovery of valid operating expenditure can therefore lower working-capital pressure and the effective cost of capital. This is particularly important in mature or technically difficult fields where operating expenditure is substantial.

Faithful representation and matching

The mechanism is accounting-effective when current production bears the current operating costs that generated it, while capital expenditure remains associated with future economic benefits. Effectiveness declines when the contract ledger drives financial-statement classification—for example, when recoverability induces management to capitalize an expense or to expense a development asset merely to accelerate cost oil. The strongest system is one in which IFRS and contract accounting are reconciled but never conflated.

Auditability and public-revenue protection

Cost recovery reduces the petroleum available for government allocation. Every ineligible or inflated dollar admitted to the recovery pool therefore has a distributive consequence. Effective same-year recovery requires timely verification, clear documentation, standardized chart-of-account mappings, audit rights, procurement controls and dispute-resolution procedures. Weak controls create the possibility of 'gold-plating'—unnecessary or inflated expenditure designed to increase cost recovery—and can delay government revenue.

Incentive compatibility

A well-designed cost-recovery system reimburses efficient petroleum operations without guaranteeing reimbursement of waste. Expenditures outside approved work programs, excessive affiliate charges, uncompetitive procurement, penalties, avoidable losses or non-petroleum corporate costs may need to be excluded or capped even if they are genuine accounting expenses. This aligns the contractor's incentive to minimize costs with the state's interest in maximizing the value of petroleum resources.

Table 6: Risk-control matrix for current-year cost recovery

Risk	How it arises	Recommended control
Cost misclassification	Capital/development expenditure is moved into the non-capital pool to accelerate recovery.	Automated mapping between AFE/work breakdown structure, fixed-asset register and cost-recovery ledger; technical/accounting joint review.
Affiliate overcharging	Related party bills for services above arm's-length rates or layers profit onto overhead.	Related-party register, transfer-pricing support, rate benchmarking, contract caps and audit access.
Duplicate recovery	The same amount is recovered through cost oil, tax oil, reimbursement, insurance, or another mechanism.	Unique cost identifiers and cross-ledger duplicate testing.
Unapproved expenditure	Costs are incurred outside approved work program or procurement authority.	Pre-approval workflow and exception reporting; emergency-cost protocol.
Weak period cut-off	Invoices and accruals are shifted between periods to maximize available cost of oil.	Month-end cut-off controls, service-entry sheets, goods-received evidence and accrual reversal testing.
Unsupported overhead allocation	Corporate costs are spread to petroleum operations using arbitrary bases.	Documented causal allocation keys were reviewed annually and tested against contract limits.
Foreign-exchange distortion	Mixed-currency contracts create inconsistent translation or recovery amounts.	Contract-specific FX policies were reconciled to IAS 21 and approved valuation rules.
Abandonment provision confusion	Accounting provision is claimed as if it were current cash expenditure.	Separate liability measurement, funding mechanism, actual expenditure, and recoverability schedules.

Transparency and dispute reduction

The most effective systems define recoverable and non-recoverable costs before expenditure is incurred, specify approval thresholds, provide objective allocation keys for shared services, and establish audit time limits and escalation mechanisms. Transparency reduces retrospective disputes and improves both corporate reporting and public accountability. The principal risks associated with current-year cost recovery and the corresponding control measures are summarized in Table 6.

Principal Risks in Non-Capital Cost Recovery

Non-capital cost recovery faces risks of cost misclassification, affiliate overcharging, duplicate recovery, unapproved expenditure, weak period cut-off, unsupported overhead allocation, and foreign-exchange errors. These risks may inflate recoverable costs, reduce government revenue, and create disputes. Effective controls include proper cost classification, pre-approval, related-party benchmarking, accurate documentation, automated reconciliation, and continuous auditing.

Discussion of Analytical Findings

First, the category 'non-capital cost' remains useful for petroleum-contract administration, but it is not sufficiently precise for IFRS financial reporting. The proper accounting treatment is transaction-specific and stage-specific. This is especially important for geological and geophysical work, drilling, borrowing costs, and abandonment obligations, all of which may be treated differently depending on facts, policy, and applicable standards. Second, contractual recoverability and accounting recognition are conceptually independent. The current operating expense can be fully recoverable through cost oil, while a qualifying capital asset can be contractually recoverable over a different period. Conversely, either an expense or an asset may be non-recoverable if it fails contract-eligibility rules. The central analytical error is therefore to infer accounting classification from reimbursement status. Third, same-period recovery can be effective. It supports contractor liquidity, reduces the financing burden of routine field operations, improves economic matching, and can promote continuity of production. Its effectiveness, however, depends on strong ex ante cost definitions and ex post audit. Without those controls, rapid recovery can weaken cost discipline and shift excessive expenditure to the state through reduced petroleum profits. Fourth, service contracts require symmetrical but separate accounting. The service provider applies IFRS 15 to revenue, whereas the petroleum operator classifies the purchased service based on the activity served. The currency and payment structure of the service agreement affect measurement and settlement, but do not by themselves determine whether the operator has an expense or an asset. Fifth, Nigeria's PIA-era framework makes cost verification increasingly important. By expressly recognizing PSC and risk service structures, the law preserves cost recovery as a fundamental allocation mechanism. This raises the value of integrated digital contract accounting, regulator access, transparent approval workflows, and reconciliation between financial accounts and petroleum entitlement statements.

Recommendations

1. Adopt a formal dual-screen accounting policy. Every petroleum cost should receive a documented IFRS classification and a separate contractual recoverability

determination, and should have separate reconciliation codes rather than merging them into one classification.

2. Create a contract-specific cost-eligibility matrix. The matrix should list each cost family, required approval, supporting documents, allocation basis, recoverability ceiling, related-party rule, currency rule, and carry-forward treatment.
3. Integrate the general ledger, AFE/work-program system, procurement platform, fixed-asset register and cost-recovery ledger. A single expenditure identifier should follow each cost from commitment to payment and recovery.
4. To strengthen related parties and head-office overhead controls, affiliate rates should be benchmarked, disclosed mark-ups, allocation documented drivers, and contract ceilings tested automatically.
5. To separate provisions from cash costs, decommissioning and abandonment provisions should be accounted for under IAS 37 (IFRS Foundation, 2024e)/IFRIC 1 and reconciled separately to any contractual decommissioning fund or recoverable cash expenditure.
6. Use continuous auditing rather than retrospective auditing for high-risk cost categories. Digital access to invoices, contracts, service-entry sheets, time sheets and procurement approvals can identify disputed costs before they accumulate.
7. Disclose significant accounting judgments. Where IFRS 6 policy choices, cost allocation, impairment judgments or carried-interest structures materially affect the accounts, transparent disclosure should explain the policy and its consequences.
8. Align service-contract drafting with accounting requirements. Contracts should separately identify base service fees, reimbursable pass-through costs, variable consideration, taxes, foreign exchange rules and performance milestones.
9. Provide joint training for accountants, petroleum economists, engineers, procurement officers, lawyers and regulators. Many cost-recovery disputes arise because technical and accounting classifications are made in isolation.
10. Review contract language periodically. Cost definitions for older operating models should constantly be updated for digital services, integrated projects, decarbonization expenditure, methane control, cybersecurity, shared infrastructure and modern decommissioning requirements.

Contribution, Limitations and Areas for Further Research

The article contributes a practical conceptual model that integrates three domains often analyzed separately: IFRS recognition, petroleum-contract recoverability and Nigerian regulatory oversight. The dual-screen framework can be incorporated into accounting manuals, PSC audit programs, regulator cost-verification procedures and graduate petroleum-accounting instruction. The study is limited by its conceptual design and by the confidentiality of many contemporary PSC accounting procedures. It does not test company-level cost data or quantify the relationship between rapid cost recovery and production performance. Future research could use anonymized operator data to compare disputed-cost ratios, audit adjustment rates, recovery lags and government take across fields. Researchers could also examine whether digital invoice analytics and continuous auditing reduce cost-oil disputes, and how energy-transition expenditures should be treated in petroleum cost-recovery systems.

Conclusion

Non-capital cost recovery is effective only when two questions are answered correctly and independently: what is the proper accounting treatment of the expenditure, and is the expenditure recoverable under the petroleum contract? Current-year chargeability is not a substitute for IFRS recognition, and contractual recoupment is not synonymous with capitalization. The most defensible approach is therefore to recognize each transaction according to its economic substance and the applicable accounting standard, then apply the PSC or service-contract rules to determine who ultimately bears the cost and when reimbursement occurs. For Nigeria, this distinction is especially relevant under the Petroleum Industry Act 2021, which expressly accommodates both production-sharing and risk service structures. Same-year recovery of genuine operating costs can enhance liquidity and sustain petroleum operations, but it must be protected by clear eligibility rules, rigorous approvals, related-party controls, accurate cut-off, audit rights and transparent reconciliation. When these safeguards are present, cost recovery can support both investor viability and public-revenue integrity. When they are absent, the same mechanism can encourage misclassification, cost inflation and avoidable disputes. The proposed dual-screen framework provides a coherent basis for achieving the former outcome.

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