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The Theoretical Foundation of Strategic Procurement: Mitigating Cost Overruns and Delays in Petroleum Exploration and Production Projects

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Abstract

Petroleum exploration and production (E&P) projects are high-stakes megaprojects that are notoriously susceptible to cost overruns and delays. This paper posits that a fundamental shift from a traditional, transactional procurement model to a strategic approach can serve as a powerful mechanism for mitigating these systemic issues. The study develops a conceptual framework by synthesising four key theoretical perspectives. Transaction Cost Economics (TCE) explains how strategic procurement's structured processes reduce the administrative and operational costs associated with complex transactions.

Agency Theory addresses the principal-agent problem, demonstrating that robust Supplier Relationship Management (SRM) can align interests and mitigate opportunistic behaviour, a primary driver of project failure. The Resource-Based View (RBV) re-frames procurement as a source of sustainable competitive advantage by developing inimitable capabilities, such as advanced IT systems and strong supplier relationships, that are difficult for competitors to replicate.

Finally, Behavioural Economics provides a crucial psychological lens, showing how data-driven procurement practices can counteract cognitive biases like the planning fallacy and optimism bias that lead to initial underestimations and flawed project budgets. By integrating these theoretical arguments, this paper provides a robust foundation for understanding how strategic procurement can be a proactive tool for enhancing project performance and ensuring financial and operational resilience in the volatile E&P sector.

Keywords: *Strategic Procurement, Petroleum Exploration and Production (E&P), Cost Overruns, Project Delays, Supply Chain Management, Supplier Relationship Management (SRM), Transaction Cost Economics, Agency Theory, Resource-Based View (RBV), Behavioural Economics, Risk Mitigation.*

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1.0 INTRODUCTION TO THE RESEARCH PROBLEM

1.1. The Strategic Importance of Petroleum E&P Projects

Petroleum exploration and production (E&P) projects represent some of the most complex and capital-intensive ventures in the global economy. The oil and gas industries

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are foundational to global economic stability, driving technological advancements, influencing geopolitics, and directly impacting financial markets. The scale of these projects, often classified as "megaprojects," demands robust and efficient management practices to navigate their inherent complexities and the volatile, high-risk environments in which they operate. The success or failure of these massive undertakings has far-reaching consequences, affecting not only a company's financial performance but also national economies and the global energy supply chain. Therefore, understanding and improving the management of E&P projects is a critical area of study for researchers and practitioners alike.

1.2. The Enduring Challenge of Cost Overruns and Delays in E&P Megaprojects

Despite their critical importance, E&P projects are notoriously susceptible to cost overruns and schedule delays. These issues are not isolated incidents but a systemic problem that has plagued large-scale projects for decades, with studies indicating that actual costs can average 28% higher than initial estimates. The causes of these failures are multifaceted and span the entire project lifecycle, from initial planning to final execution.

A primary source of the problem lies in the pre-execution phase, often rooted in flawed planning and design. Projects frequently proceed with an insufficiently defined Front-End Engineering Design (FEED) package, which lacks the final drawings and quantity takeoffs needed to procure equipment and materials accurately. This ambiguity leads to inaccurate contractor cost estimates, with contractors potentially underestimating bids to win the contract. Another significant cause is an inadequate design basis for production rates and properties, which necessitates costly and time-consuming design changes later in the project.

Beyond initial planning, managerial and operational inefficiencies contribute significantly to project failure. These include poor contractor planning and site management, inadequate management of contractor interfaces, and inconsistent resource allocation. Mismanagement of critical resources, including machines, workforce, materials, and money, is a recurring theme in the literature, which highlights it as a major contributor to cost overruns.

Contractual and financial issues further compound the problem. Ambiguous contract documents frequently lead to disputes over technical specifications, cost control, and change order management. Contractors may intentionally submit minimal information to obscure progress, later attempting to shift blame for cost and schedule issues onto the project owner. Financial constraints, such as unreliable funding or a contractor's cash flow difficulties, can also trigger delays and cost increases.

An analysis of these documented causes reveals that many of the problems that manifest later in a project's lifecycle are predetermined by fundamental flaws in the initial planning and estimation stages. For instance, the ambiguity in the FEED package is not a minor oversight; it is a critical root cause that forces contractors to make assumptions, leading to lump-sum bids that are almost certain to be underestimated. When the project moves into the execution phase, the original design must be modified, leading to "large change orders, cost overruns, and delays".

This initial planning failure creates a domino effect, manifesting as managerial and contractual problems down the line. The situation is further exacerbated by the

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phenomenon referred to as the "liars' contest". This describes a competitive environment where both internal managers and external contractors may present overly optimistic or even deceptive cost estimates to get a project approved or to win a contract. This institutional pressure ensures that many projects begin with a built-in deficit, a financial and temporal liability that is almost certain to result in overruns. The problem of cost overruns and delays is therefore not merely a collection of isolated errors but a deeply systemic issue rooted in a failure to establish a sound foundation in the earliest stages of a project's life.

1.3. The Evolving Role of Procurement: From Transactional to Strategic

Historically, procurement has been viewed as a back-office, transactional function focused on securing the lowest possible price on a per-transaction basis. In this traditional model, the primary objective is short-term cost savings, with little consideration for broader factors like total cost of ownership, quality, or long-term supplier relationships. This reactive, siloed approach often leaves significant potential cost savings and operational efficiencies untapped, contributing to the very problems outlined in the previous section.

In contrast, a modern, strategic approach to procurement is a systematic, data-driven methodology designed to align purchasing activities with an organisation's overall goals and objectives. Strategic procurement shifts the focus from simple price negotiations to a comprehensive view that considers quality, sustainability, risk management, and the development of long-term, mutually beneficial supplier partnerships. This approach is designed to transform procurement from a reactive cost centre into a proactive value driver that creates measurable, sustained improvements across the entire supply chain.

1.4. Problem Statement and Research Questions

The persistence of cost overruns and delays in E&P projects necessitates a paradigm shift in how these ventures are managed. While many factors contribute to project failure, the upstream procurement process represents a critical and often underdeveloped area for intervention. This research is premised on the belief that a fundamental change from a traditional to a strategic procurement model can significantly mitigate the issues of cost overruns and delays by addressing their underlying causes systematically and holistically.

The core research question guiding this thesis is: How do the theoretical tenets of strategic procurement impact the mitigation of cost overruns and delays in Petroleum E&P projects? This question will be explored by examining the foundational theories that underpin strategic procurement and analysing how their practical application can transform project outcomes.

2.0 CONCEPTUALIZING STRATEGIC PROCUREMENT

2.1. Defining the Strategic Procurement Construct

2.1.1. Distinction between Traditional and Strategic Procurement

The shift from traditional to strategic procurement represents a fundamental change in organisational philosophy. Traditional procurement is a reactive function focused on processing purchase orders and negotiating prices for specific transactions.

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Its time horizon is short-term, and success is typically measured by simple metrics such as unit cost reduction. Supplier relationships are often adversarial, with the primary goal being to secure the lowest bid, which can lead to a "liars' contest" where both parties are not fully transparent. Risk analysis is minimal, and supplier issues are addressed only when they arise.

In contrast, strategic procurement is a proactive, analytical process that views the procurement function as a critical tool for achieving organisational goals. It takes a long-term, holistic view, focusing on the total cost of ownership (TCO) rather than just the initial price. This involves considering all costs associated with a product or service over its entire lifecycle, including maintenance, quality, and disposal. Supplier relationships are transformed into long-term, collaborative partnerships aimed at mutual benefit and continuous improvement. Risk mitigation is a central activity, as the process involves proactively assessing supplier stability and implementing contingency plans to ensure supply chain resilience. This approach allows the procurement function to create a competitive advantage by driving innovation, enhancing efficiency, and aligning with the company's broader strategic objectives.

The distinctions between these two approaches are summarised in the table below:

Dimension	Traditional Procurement	Strategic Procurement
Focus	Unit price, short-term cost savings	Total cost of ownership, long-term value creation
Time Horizon	Reactive, per-transaction	Proactive, structured, long-term
Supplier Relationship	Adversarial, transactional	Collaborative, long-term partnerships (SRM)
Key Metrics	Price negotiation, one-time savings	KPIs, performance tracking, TCO
Risk Management	Minimal, addresses issues only when they arise	Proactive risk mitigation, resilience, contingency planning

2.1.2. Core Pillars and Activities

Strategic procurement is built on four interconnected pillars that form a systematic approach to sourcing and managing supply chains :

- *Spend Analysis:* This is the foundational step, involving the collection, categorisation, and analysis of an organisation's purchasing data. By transforming raw data into actionable insights, spend analysis provides a clear understanding of past spending patterns, supplier performance, and opportunities for cost savings. For example, a spend analysis might reveal that a company is purchasing similar items from multiple suppliers at different prices, indicating an opportunity for consolidation and renegotiation.

- *Sourcing:* This pillar involves identifying, evaluating, and selecting qualified suppliers who align with an organisation's needs for cost, quality, delivery, and innovation. The process goes beyond simply issuing a request for proposal (RFP); it involves thorough market research and a detailed evaluation of supplier responses based on a set of predetermined criteria. Effective sourcing balances

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cost optimisation with other critical factors, such as supplier reliability and quality.

- *Contract Management:* This pillar focuses on overseeing and administering agreements with suppliers to ensure compliance, mitigate risk, and maximise value. It is a critical activity in a project's lifecycle, as ambiguities in contracts can lead to disputes and delays. Activities include negotiating clear contract terms, monitoring supplier performance against key performance indicators (KPIs), and managing renewals and amendments.
- *Supplier Relationship Management (SRM):* SRM is a strategic practice that focuses on collaborating with key suppliers to drive mutual benefits, continuous improvement, and innovation. It involves building trust, fostering open communication, and aligning goals between the buyer and supplier. Case studies in the energy, oil, and gas sectors demonstrate that strategic supplier management leads to improved cost control, enhanced project timelines, and minimised risks. SRM transforms the supplier from a transactional provider into a strategic partner who contributes to the long-term success of the organisation.

3.0 THEORETICAL FOUNDATIONS

The relationship between strategic procurement and project performance can be best understood by drawing upon several foundational theories from economics and management. This chapter will outline four primary theoretical lenses that provide the explanatory power for the impact of strategic procurement on mitigating cost overruns and delays in E&P projects.

3.1. Transaction Cost Economics (TCE): Explaining Governance and Transactional Efficiency

3.1.1. Core Tenets of TCE

Transaction Cost Economics (TCE) is a seminal theory that addresses the fundamental "make-or-buy" decision—whether a firm should produce a good or service in-house (vertical integration) or outsource it to an external supplier. At its core, TCE posits that the most efficient governance structure for a transaction is the one that minimises the associated transaction costs. These costs are the operational and administrative expenses involved in sourcing and purchasing goods, extending beyond the unit price to include legal fees, labour, and coordination expenses.

TCE is built on the behavioural assumptions of bounded rationality and the risk of opportunistic behaviour, which is defined as self-interest seeking with guile. It focuses on the various hazards that can arise when a buyer engages an external supplier. Transaction costs are categorised into three primary types :

- *Search and Information Costs:* Expenses incurred when identifying potential suppliers, researching their capabilities, and comparing product specifications.

- *Bargaining Costs:* The time and effort involved in negotiating pricing, terms, and service levels.

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- *Policing and Enforcement Costs:* The costs of monitoring supplier performance, ensuring contract compliance, and resolving disputes after a contract is in place.

3.1.2. Application to E&P Procurement

The application of TCE to E&P projects is particularly relevant due to the high levels of asset specificity, uncertainty, and complexity inherent in the sector. These characteristics generate significant transaction costs. For instance, the search for highly specialised drilling equipment or engineering services incurs substantial search and information costs. The intricate, long-term nature of E&P projects leads to extensive bargaining costs during the negotiation of complex contractual agreements. Similarly, the potential for disputes over change orders, performance metrics, and technical specifications results in high policing and enforcement costs.

From a TCE perspective, the move towards more collaborative procurement arrangements in the E&P sector, such as partnering or joint ventures, can be explained as a rational response to these challenges. These hybrid governance structures are a means of reducing the risks associated with pure market-based transactions, where opportunistic behaviour is more likely to occur.

The core pillars of strategic procurement are, in effect, a practical and systematic application of TCE's principles to reduce transaction costs. For example, "Spend Analysis" and "Sourcing" directly address the search and information costs by providing a structured, data-driven methodology for understanding spending and identifying the most suitable suppliers. "Contract Management" and "Supplier Relationship Management" directly tackle the bargaining, policing, and enforcement costs by creating robust agreements and long-term partnerships that reduce the need for constant, costly dispute resolution. This theoretical framing demonstrates that strategic procurement is not merely a collection of best practices but a coherent, theoretically-driven approach designed to minimise the very costs that contribute to project overruns.

3.2. Agency Theory: Understanding Principal-Agent Relationships

3.2.1. Core Tenets of Agency Theory

Agency Theory provides a framework for analysing the relationship between two parties: a principal, who delegates authority to another party, the agent, to act on their behalf. In the context of E&P projects, the project owner acts as the principal, while the contractors and suppliers are the agents. The central problem in this relationship is the potential for a conflict of interest, where the agent, motivated by self-interest, may not always act in the best interest of the principal. This issue is exacerbated by information asymmetry, where the agent possesses more knowledge about their own actions than the principal.

3.2.2. Application to E&P Procurement

The E&P project environment is rife with agency problems. A classic example is the "liars contest," where contractors, in their role as agents, submit unrealistically low bids to win a contract. They may do so with the full knowledge that project design documents are ambiguous, which will allow them to submit a series of change orders

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later to increase their profit at the principal's expense. This opportunistic behaviour directly contributes to project cost overruns and delays.

Agency theory suggests that to mitigate these risks, principals must implement mechanisms to align the agent's interests with their own. This is where strategic procurement becomes a crucial tool. The SRM pillar, for instance, is a direct mechanism for mitigating agency risk by fostering transparency, building trust, and aligning goals through collaborative efforts. Proactive supplier performance monitoring and clear communication, which are integral to strategic procurement, reduce information asymmetry and make it harder for opportunistic behaviour to go unnoticed.

A significant finding from a related study is the "double deviation effect," which underscores the importance of addressing systemic issues rather than treating each failure as an isolated event. This effect explains that while a single supply chain failure might be forgiven, repeated failures by a supplier are perceived not as bad luck, but as indicators of "systemic supplier vulnerability". This perception drastically erodes trust and can lead to the termination of the relationship, regardless of the financial costs involved.

The implication for procurement is that a reactive, per-incident approach is insufficient. Strategic procurement, through robust SRM and proactive risk management, can provide the buyer with the necessary visibility and data to identify and address underlying process shortfalls with a supplier before they become a chronic issue that signals a fundamental breakdown in the principal-agent relationship.

3.3. The Resource-Based View (RBV): Leveraging Internal Capabilities for Competitive Advantage

3.3.1. Core Tenets and the VRIN/VRIS Framework

The Resource-Based View (RBV) is a strategic management theory that posits a firm's sustainable competitive advantage comes from its unique internal resources and capabilities rather than from external market positioning. Resources can be either tangible (e.g., machinery, equipment) or intangible (e.g., brand reputation, specialised knowledge). For a resource to be a source of sustained competitive advantage, it must meet the VRIN criteria, meaning it must be **V**aluable, **R**are, **I**nimitable, and **N**on-substitutable. The ability to leverage these unique resources allows a firm to outperform its competitors by doing things differently and more effectively.

3.3.2. Application to E&P Procurement

The RBV provides a compelling argument for why strategic procurement is more than just a cost-saving function; it can be a source of enduring competitive advantage. By applying the RBV lens, the procurement function is no longer viewed as a necessary cost centre, but as a strategic asset. The intangible resources created through strategic procurement—such as robust supplier relationships, a highly efficient distribution network, and advanced IT systems for data-driven decision-making—can meet the VRIN criteria. These capabilities are often developed over time through experience, are specific to the firm's context, and are difficult for competitors to imitate quickly or cheaply.

An organisation's ability to effectively manage its supply chain and mitigate risk through procurement is a core competence that enables it to not only reduce costs but also to "drive innovation, efficiency, and growth". For example, by fostering close

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collaboration with a strategic supplier, a procurement team can jointly identify opportunities for process optimisation or new product development. This re-frames procurement's role from a reactive cost manager to a proactive value creator. This conceptual shift is crucial, as it elevates the purpose of the thesis from focusing on how to prevent problems to one of demonstrating how procurement can be a central driver of organisational success and a source of competitive advantage in the volatile E&P sector.

3.4. Behavioural Economics and Cognitive Biases

3.4.1. The Planning Fallacy and Optimism Bias as Drivers of Cost Overruns

While the previous theories provide a rational, economic perspective, behavioural economics offers a psychological lens for understanding project overruns. A key concept is the planning fallacy, which is the pervasive tendency to underestimate the time, cost, and resources needed to complete a future task, even when aware that similar past tasks have taken longer than planned. This fallacy is a manifestation of optimism bias. On this cognitive bias, individuals tend to believe that their own outcomes will be better than the average, while underestimating the likelihood of adverse events.

This bias is a direct driver of cost overruns in E&P projects, as a significant cause is "initial underestimation, through the use of optimistic estimates". Project sponsors, managers, and even contractors may knowingly or naively provide optimistic forecasts to make a project seem more viable, a phenomenon driven by "wishful thinking" or the need to "sell" a project to upper management. This results in projects reaching a "point of no return" before the actual costs are acknowledged, making it nearly impossible to course-correct.

3.4.2. The Interplay of Behavioral and Organizational Factors

The planning fallacy is not merely a personal psychological flaw; institutional and organisational pressures frequently exacerbate it. As noted earlier, the "liars contest" is a perfect example of this. When managers are competing for limited internal capital or are pressured to meet aggressive timelines, they may be incentivised to present overly optimistic estimates. This institutional pressure transforms a personal cognitive bias into a systemic organisational problem that directly impacts a project’s financial viability from the very beginning.

Strategic procurement, with its emphasis on data-driven decision-making and rigorous analysis, provides a crucial institutional counter-balance to these behavioural tendencies. The use of data analytics and historical data from past projects (a practice known as "Reference Class Forecasting") can anchor a project's estimates in reality, making them less susceptible to optimism bias. By introducing objective, quantitative measures and formal risk assessment processes, strategic procurement can help organisations avoid the pitfalls of the planning fallacy and build a more realistic foundation for project success.

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4.0 THE IMPACT OF STRATEGIC PROCUREMENT ON PROJECT PERFORMANCE

4.1. The Direct Influence on Cost and Schedule

The adoption of strategic procurement practices has a direct and measurable influence on mitigating cost overruns and delays in E&P projects. Research indicates that strategic supplier management leads to "improved cost control, enhanced project timelines, and minimised risks". This is achieved by moving beyond the simple price of goods to focus on the total cost of ownership and the entire supply chain. By optimising the management of the "5 Ms"—machines, workforce, materials, money, and management—strategic procurement ensures that resources are allocated efficiently to meet project objectives, thereby reducing the common causes of overruns and delays.

4.2. The Role of Supplier Relationship Management (SRM) as a Strategic Lever

Supplier Relationship Management (SRM) is a critical lever within the strategic procurement framework. A robust SRM strategy involves several key steps that contribute to project success:

- *Supplier Segmentation:* Categorising suppliers based on their strategic importance and risk level allows for the effective allocation of resources.
- *Clear Expectations:* Establishing clear communication of roles, responsibilities, and performance requirements from the outset builds a foundation of trust and transparency.
- *Performance Monitoring:* Continuous monitoring of supplier performance against KPIs helps to identify and address issues proactively, reducing the risk of errors and delays.
- *Collaboration and Communication:* Fostering open communication and collaboration throughout the partnership enables both parties to address challenges jointly and drive mutual benefits.

SRM is essential for mitigating a wide range of supplier-related risks, including supply chain disruptions, financial instability, and poor performance. By actively monitoring and managing these relationships, organisations are not caught off guard by unexpected issues and can implement contingency plans before problems escalate.

4.3. The Influence of E-Procurement and Digitalisation

The integration of technology, particularly e-procurement solutions, is a vital component of strategic procurement. E-procurement leverages technology to streamline processes, improve efficiency, and reduce costs in the E&P industry. These digital tools provide real-time visibility into every step of the procurement process, allowing organisations to track vendor performance and collaborate effectively with suppliers.

Furthermore, e-procurement platforms are instrumental in reducing transaction costs. They simplify workflows, manage high volumes of data, and facilitate data-driven decision-making, leading to enhanced efficiency and cost reduction. By automating core processes and providing greater supply chain transparency, e-procurement supports

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the goals of strategic procurement by freeing up capacity for higher-value initiatives like supplier innovation and risk mitigation.

4.4. The Impact of Robust Risk Management Strategies

Strategic procurement is fundamentally linked to a broader operational risk management (ORM) framework. In the E&P sector, which is defined by complex global supply chains, political instability, and intricate regulatory landscapes, a proactive risk management approach is essential for maintaining operational resilience and protecting profitability. Strategic procurement activities, such as thorough supplier due diligence, diversifying supplier portfolios, and implementing contingency planning, are critical for mitigating a range of risks, including supply chain disruptions, compliance issues, and financial instability. This systematic approach ensures that risks are identified and addressed before they can negatively impact project operations, service delivery, or strategic objectives.

5.0 PROPOSED CONCEPTUAL FRAMEWORK AND RESEARCH PROPOSITIONS

5.1. A Synthesised Theoretical Model Linking Strategic Procurement to Project Performance

Based on the theoretical and empirical evidence presented, this study proposes a conceptual framework that links strategic procurement to project performance. The model posits that strategic procurement, through its core pillars and activities, is a primary mechanism for mitigating cost overruns and delays. The four theoretical lenses provide the explanatory power of this relationship—TCE, Agency Theory, the Resource-Based View, and Behavioural Economics—each of which explains a distinct but interconnected causal pathway. This framework moves beyond a simple correlation to demonstrate the underlying mechanisms at play.

5.2. Hypotheses and Research Propositions

The proposed framework allows for the generation of a series of testable hypotheses for future empirical research. These propositions are designed to provide a clear, falsifiable basis for testing the theoretical model in practice.

- *Proposition 1:* The implementation of strategic procurement practices, as a means of reducing transactional costs in a high-uncertainty environment (TCE), is negatively correlated with the magnitude of cost overruns in E&P projects.

- *Proposition 2*: The implementation of robust Supplier Relationship Management practices, as a means of mitigating information asymmetry and opportunistic behaviour (Agency Theory), is positively correlated with on-time project completion.
- *Proposition 3:* A firm's strategic procurement capability, developed as a valuable, rare, and inimitable resource (RBV), is positively correlated with superior project performance and sustainable competitive advantage.

- *Proposition 4:* The use of data-driven strategic procurement practices, such as spend analysis and e-procurement platforms, is negatively correlated with the magnitude of cost overruns by mitigating the effects of the planning fallacy and optimism bias (Behavioural Economics).

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The following table synthesises the theoretical lenses, their explanatory power, and the specific strategic procurement solutions they inform.

Theoretical Lens	Core Principle	Problem in E&P	Strategic Procurement Solution	Impact on Project Performance
Transaction Cost Economics	Minimise operational and administrative costs of transactions	High search, bargaining, and policing costs due to complexity and uncertainty	Spend Analysis, Sourcing, and Contract Management to reduce transaction costs	Reduced total cost of ownership and enhanced transactional efficiency
Agency Theory	Align principal and agent interests to manage risk	Information asymmetry and opportunistic behaviour (e.g., "liars contest" and change orders)	Supplier Relationship Management (SRM) to foster transparency and build trust	Enhanced supplier performance, mitigated the risk of supplier failure, and ensured on-time delivery
Resource-Based View	Sustainable competitive advantage from unique internal resources	Procurement is viewed as a cost centre, not a strategic asset	Developing procurement as a VRIN capability (e.g., IT systems, supplier relationships)	Creation of a competitive advantage through innovation, efficiency, and risk resilience
Behavioral Economics	Cognitive biases influence decision-making.	Optimism bias and planning fallacy lead to initial underestimation and project underfunding.	Data-driven decision-making, reference class forecasting, and structured risk assessment	More realistic cost estimates and schedules, reduced likelihood of cost overruns and delays

6.0 CONCLUSION

6.1. Synthesis of Theoretical Arguments

This theoretical foundation demonstrates that strategic procurement is a multi-dimensional construct that can significantly mitigate cost overruns and delays in E&P projects. The report has synthesised four distinct but complementary theoretical perspectives to explain the causal mechanisms at play. Transaction Cost Economics provides an economic rationale for reducing the administrative costs of complex E&P transactions. Agency Theory describes how a proactive approach to managing supplier relationships can mitigate the behavioural hazards that lead to disputes and cost increases.

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The Resource-Based View re-frames the procurement function as a source of inimitable competitive advantage, moving it from a reactive cost centre to a proactive value driver. Finally, Behavioural Economics provides a crucial psychological dimension, explaining how strategic procurement's data-driven practices can serve as an institutional counter-balance to the cognitive biases that often plague large-scale project planning.

6.2. Implications for Academic Research and Industry Practice

The implications of this research are significant for both the academic community and industry practitioners. For researchers, this report provides a novel, integrated conceptual framework that can be tested empirically to provide a deeper, more nuanced understanding of the link between procurement strategy and project performance. Future studies could focus on quantifying the impact of each theoretical tenet on project outcomes.

For the E&P industry, the article underscores the urgent need to move beyond traditional, cost-focused procurement. Project leaders and corporate executives must recognise procurement not as a support function but as a critical strategic lever for risk mitigation and value creation. The implementation of robust strategic procurement frameworks, supported by digital technologies and a focus on building long-term supplier relationships, is essential for improving project performance, protecting profitability, and ensuring long-term sustainability in a volatile market.

6.3. Limitations and Future Research Directions

While this theoretical foundation is comprehensive, it is essential to acknowledge its limitations. The primary challenge lies in the empirical measurement of intangible resources and capabilities, such as trust and knowledge integration, which are central to the RBV and Agency Theory.

Future research could focus on developing a robust, multi-dimensional instrument for measuring the maturity of a strategic procurement function within E&P organisations. Additionally, the role of emerging technologies, such as blockchain for enhancing transparency and AI for predictive analytics, on each of the theoretical tenets could be explored as a fertile avenue for future research.

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