

Integrating Environment, Social, and Governance in Oil and Gas: Balancing Profitability and Sustainability

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Abstract

This study examines the integration of Environmental, Social, and Governance (ESG) practices and their impact on organizational performance within Saudi Arabia's oil and gas sector. The main objective was to determine how environmental initiatives, social responsibility programs, and governance mechanisms influence financial performance, shareholder value, and competitiveness amid the country's sustainability transformation. ESG dimensions were treated as independent variables, while organizational performance was identified as the dependent variable. A quantitative research design was used, employing a structured survey distributed to professionals across various segments of the oil and gas value chain. The instrument was validated through expert review and pilot testing to ensure reliability. Descriptive statistics (frequency, mean, and standard deviation) were used to summarize adoption levels, while Spearman correlation tested the relationships among ESG dimensions and profitability. Results revealed that environmental practices were partially adopted, emphasizing energy efficiency over carbon capture and renewable integration, yet showed a moderate positive correlation with profitability ($r = 0.437$, $p = 0.001$). Social practices achieved the highest adoption and demonstrated the strongest relationship with profitability ($r = 0.614$, $p = 0.001$), particularly through health, safety, and inclusion initiatives. Governance practices were moderately implemented but significantly associated with profitability ($r = 0.558$, $p = 0.001$). Respondents identified high operational costs and regulatory ambiguity as main barriers, while opportunities emerged in innovation and investor confidence. In conclusion, ESG adoption positively contributes to financial and organizational performance. While environmental initiatives remain underdeveloped, social and governance dimensions drive measurable business value. ESG integration thus represents a strategic approach for achieving both profitability and sustainability in the evolving global energy landscape, supported by national policy frameworks such as Saudi Vision 2030 and the Saudi Green Initiative.

Keywords: ESG integration, sustainability, profitability, organizational performance, governance, social responsibility, environmental practices, oil and gas sector



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INTRODUCTION

The accelerating global transition toward sustainability has elevated Environmental, Social, and Governance (ESG) principles as critical determinants of business legitimacy, competitiveness, and long-term profitability. Once considered optional, ESG integration is now a strategic imperative for industries facing the dual pressures of global climate commitments and stakeholder accountability. In the oil and gas sector traditionally scrutinized for its environmental impact ESG has redefined how corporate performance is measured, blending financial results with environmental responsibility, social welfare, and governance transparency.

In the Kingdom of Saudi Arabia, this shift aligns with Vision 2030 and the Saudi Green Initiative, both designed to diversify the economy, accelerate low-carbon energy adoption, and institutionalize good governance. These initiatives compel oil and gas companies to invest in clean technologies, enhance employee welfare, and strengthen corporate integrity to maintain competitiveness in a rapidly evolving global energy landscape. As global investors increasingly prioritize ESG-driven companies, understanding the link between ESG practices and profitability has become essential for strategic sustainability management.

Despite growing awareness of ESG's potential, many oil and gas companies in Saudi Arabia

face persistent challenges in achieving full ESG integration. Environmental initiatives often demand high capital investment and lack consistent policy guidance. Social programs are implemented but not always embedded in strategic planning, while governance frameworks differ widely in scope and rigor, especially in areas of board oversight and ESG reporting standards.

These gaps lead to a central research question: To what extent do ESG dimensions Environmental, Social, and Governance contribute to organizational performance and profitability in Saudi Arabia's oil and gas sector, under the moderating influence of regulatory and market pressures?

The study focuses exclusively on the Saudi Arabian oil and gas industry, analyzing the ESG practices of professionals involved in planning, compliance, or management functions. Respondents represented diverse functional areas such as operations, finance, legal, risk management, and sustainability. The study assessed ESG adoption levels, implementation challenges, and perceived effects on financial outcomes. Direct financial audits or environmental impact measurements were excluded. The study's timeframe (2024–2025) captures an era of active regulatory reform and sustainability alignment, ensuring the findings reflect current industrial realities.

In line with the research objectives, the following hypotheses were formulated and tested using correlation analysis:

H₁: There is a significant relationship between environmental practices and organizational profitability and overall performance in oil and gas companies in Saudi Arabia.

H₂: There is a significant relationship between social practices including employee welfare, diversity, and community engagement and organizational profitability and stakeholder trust.

H₃: There is a significant relationship between governance practices such as ethical

leadership and board-level ESG oversight and organizational profitability, corporate transparency, and long-term competitiveness.

Theoretical and Conceptual Framework. This study is anchored on Stakeholder Theory (Freeman, 1984) and the Resource-Based View (RBV) (Barney, 1991). Stakeholder Theory posits that long-term organizational success depends on balancing the interests of employees, investors, customers, communities, and regulators. The Resource-Based View, meanwhile, emphasizes that ESG-related capabilities such as transparency, ethical leadership, and sustainability innovation serve as unique and inimitable resources that yield competitive advantage.

Building upon these theoretical foundations, the study's Conceptual Framework (Figure 1) illustrates that Environmental (E), Social (S), and Governance (G) factors function as the independent variables (IVs) directly influencing Organizational Performance (DV). These ESG dimensions collectively represent the strategic pillars through which oil and gas companies enhance profitability, operational efficiency, and stakeholder trust.

While regulatory and market pressures are not treated as a statistically tested moderating variable, they remain key external influencers that shape how organizations design and implement ESG strategies. Within the Saudi context, these external drivers—such as Vision 2030 sustainability policies, the Saudi Green Initiative, and global investor expectations—create an enabling environment that encourages companies to integrate ESG principles into their governance and operations. Thus, the conceptual model reflects direct ESG–performance linkages situated within a broader policy and market ecosystem that supports national competitiveness and sustainable transformation.

The framework illustrates Environmental, Social, and Governance (ESG) dimensions as Independent Variables (IVs) directly influencing Organizational Performance as the Dependent Variable (DV). Regulatory and market pressures

are positioned as external contextual influencers supporting ESG implementation within the Vision 2030 sustainability agenda.

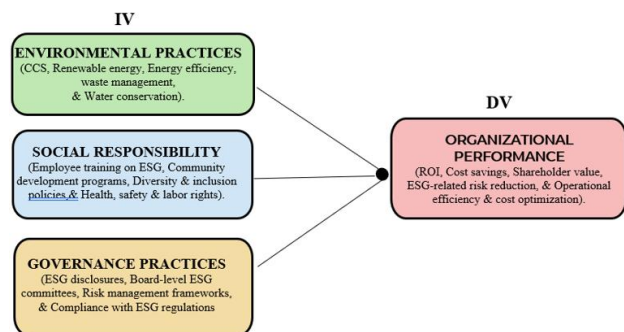


Figure 1
Conceptual Framework

Figure 1 demonstrates how the Environmental, Social, and Governance (ESG) dimensions directly influence organizational performance within Saudi Arabia's oil and gas industry. The framework assumes that firms integrating ESG practices are better positioned to achieve sustainable competitiveness, operational efficiency, and profitability objectives aligned with Vision 2030.

The “Environmental” dimension underscores initiatives such as renewable energy adoption, emission control technologies, and waste reduction programs demonstrating a firm's commitment to ecological responsibility and long-term sustainability. The “Social” dimension encompasses corporate social responsibility (CSR), employee welfare and training, diversity and inclusion, and community engagement enhancing workforce capability and stakeholder trust. The “Governance” dimension focuses on leadership accountability, ethical conduct, transparency, and compliance with sustainability standards, ensuring that ESG priorities are embedded in strategic and operational decisions.

Collectively, these three dimensions (IVs) reinforce one another to improve Organizational Performance (DV), reflected in profitability, innovation, market resilience, and stakeholder satisfaction. Positioned within a policy-driven ecosystem shaped by the Saudi Green Initiative and Vision 2030, this framework highlights how ESG integration supports both

corporate success and the nation's transition toward a sustainable economy.

LITERATURES

The global energy landscape is undergoing one of the most profound transformations in modern history. Long dominated by fossil fuels, the oil and gas sectors now stand at the center of a sustainability revolution. Environmental, Social, and Governance (ESG) principles once regarded as voluntary add-ons have evolved into strategic imperatives that determine resilience, profitability, and legitimacy in a rapidly changing world. Within this context, the literature paints a compelling picture of how ESG integration shapes organizational performance, particularly for oil and gas companies navigating the ambitions of Saudi Arabia's Vision 2030.

Environmental Dimension of ESG. The Environmental dimension of ESG represents the sector's journey from compliance to competitiveness. Once criticized for its contribution to emissions and environmental degradation, the industry is increasingly recognized as a potential catalyst for global sustainability. Studies reveal that integrating renewable energy, carbon capture and storage (CCS), and energy-efficiency practices not only reduce emissions but also enhance long-term profitability (Esiri et al., 2024a; Dhali et al., 2023). Aligning operations with the United Nations Sustainable Development Goals, especially SDG 7 on clean energy and SDG 13 on climate action has become both an ethical duty and a strategic differentiator. In this new era, sustainability is not a cost but a source of value creation. Jerab (2025) and Alotaibi and Al-Dubai (2024) argue that firms embedding sustainability within their strategy strengthen their market position and investor appeal. Environmental stewardship, once viewed as moral obligation, is now synonymous with innovation and operational efficiency.

Social Dimension of ESG. Equally essential is the “social pillar,” the human face of the energy transition. Research shows that corporate social responsibility (CSR), employee welfare,

and community engagement have become decisive factors in maintaining legitimacy and stakeholder trust. Benni (2023) emphasizes that inclusive community development, fair labor practices, and safety initiatives cultivate social cohesion and prevent conflict in resource-dependent regions. Yucel and Yucel (2024) further highlights that genuine CSR builds investor confidence and long-term loyalty when it is embedded into business strategy rather than deployed as public relations. In Saudi Arabia, this ethos aligns naturally with Vision 2030's focus on human capital and inclusive economic growth. By treating social responsibility as a strategic investment, energy firms secure not only community goodwill but also sustainable operational continuity.

Governance Dimension of ESG. The third dimension, governance, forms the backbone that transforms these commitments into measurable results. Robust governance ensures that ESG goals translate into credible corporate behavior. Studies link diverse boards, independent oversight, and transparent disclosure systems with improved financial performance and investor confidence (Markovskaya et al., 2021; Rojo-Suárez et al., 2024). Effective governance empowers organizations to anticipate regulation, manage risk, and maintain integrity in complex markets. Olawale and Obinna (2023) and Dsouza and Krishnamoorthy (2024) further contend that ESG governance is not merely compliance; it is a decision-making philosophy that balances profitability with ethical responsibility. Under Vision 2030 reforms, Saudi companies are increasingly adopting international governance standards to enhance transparency and accountability an essential step in attracting global capital.

The literature on ESG and financial performance delivers an increasingly confident answer to a persistent question: does sustainability pay? Evidence indicates that companies integrating ESG principles outperform peers in return on investment, cost optimization, and risk management (Le, 2024; Gutman et al., 2024). Green finance through instruments such as

green bonds and ESG-linked loans—is opening new capital streams, but credibility depends on rigorous reporting and third-party assurance (Gilchrist et al., 2021). At the same time, advances in analytics are reshaping how performance is measured. Alsayyad and Fadel (2024) demonstrate that machine-learning models can predict ESG scores using financial indicators, showing that environmental and financial health are increasingly intertwined. These findings strengthen the case that ESG integration generates tangible economic value rather than symbolic virtue.

Beyond compliance, ESG has become a powerful source of competitive advantage. Ali et al. (2023) show that vertically integrated firms those controlling multiple stages of the energy value chain are better positioned to enforce sustainability standards and reduce supply-chain risks. Ranases (2020) finds that aligning ESG initiatives with core business strategy builds resilience against market shocks and regulatory change. Transparent sustainability reporting and strong board oversight signal reliability to investors and partners (Umoren & Ukpong 2022; Güngör & Şeker 2022). In an era where stakeholder perception directly influences access to capital, ESG is both a shield and a springboard protecting firms from risk while propelling innovation.

Ultimately, investors now evaluate companies not just by profits but by purpose. Studies show that firms with credible ESG credentials command stronger investor confidence and more stable valuations (Naeem & Çankaya 2022; Cardoni et al. 2019). Saudi Arabia's Vision 2030 amplifies this shift by embedding ESG principles within national policy, urging firms to expand renewable portfolios, enhance governance, and lead in decarbonization efforts. Frameworks like the Global Reporting Initiative (GRI) have become vital tools for accountability, enabling comparability and transparency across the energy sector (Okoye et al., 2021). In this light, ESG is not a Western import but a universal framework for resilience.

Taken together, the reviewed literature underscores a clear message: ESG integration

transforms sustainability from an obligation into a strategic advantage. Environmental initiatives drive efficiency and innovation; social responsibility nurtures trust and legitimacy; governance ensures accountability and ethical leadership. Collectively, these forces improve profitability, competitiveness, and shareholder value. Yet despite the global surge in ESG research, empirical studies focusing on Saudi Arabia's oil and gas sector remain limited. Most existing analyses isolate single ESG dimensions or rely on Western contexts, overlooking how environmental, social, and governance factors interact within Saudi Arabia's distinctive regulatory and market environment.

This gap defines the contribution of the present study. By examining how ESG practices under the moderating influence of regulatory and market pressures affect organizational performance in Saudi Arabia's oil and gas industry, the research bridges theory and practice. It offers new evidence on how energy firms can transform ESG from a reporting exercise into a strategic engine of sustainable competitiveness, aligning national ambitions with global sustainability goals.

METHODS

This study applied a systematic and transparent methodological framework to explore how Environmental, Social, and Governance (ESG) practices influence organizational performance within Saudi Arabia's oil and gas sector. Built upon quantitative principles and a positivist worldview, the research was designed to generate reliable, empirical evidence on the intersection of sustainability and profitability in one of the world's most critical energy markets. Through a clear, step-by-step process, the study examined how environmental responsibility, social inclusion, and governance transparency contribute to the strategic success of energy firms adapting to the demands of Vision 2030 and the global sustainability agenda.

A quantitative, descriptive-correlational research design was adopted to capture both the patterns and statistical relationships among

ESG dimensions and financial performance. This design allowed for objective measurement and correlation testing, ensuring that findings were grounded in data rather than perception. Anchored in the positivist paradigm, the study assumed that reality could be objectively observed and quantified through numerical indicators. It followed a deductive approach, deriving hypotheses from established theoretical foundations—particularly Stakeholder Theory and the Resource-Based View (RBV)—and empirically testing them within the context of Saudi Arabia's oil and gas industry. The methodological choice not only ensured alignment with existing literature but also provided a robust structure for validating how ESG practices create tangible business value.

Descriptive statistics, including mean, frequency, and standard deviation, were used to summarize responses across all ESG dimensions. The survey utilized a five-point Likert scale, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. This scale enabled consistent interpretation of the results, linking statistical averages to specific response levels and allowing for clearer differentiation of agreement and adoption intensity across environmental, social, and governance variables.

To obtain reliable and contextually rich data, purposive sampling was employed. Participants were deliberately selected based on their expertise and active involvement in ESG initiatives within their organizations. This approach ensured that the data reflected informed professional perspectives rather than random opinions. A total of sixty-nine respondents participated in the study, representing diverse organizational roles such as corporate services, legal and compliance, finance, operations, and sustainability management. Notably, 77.8 percent of participants were from downstream operations, reflecting distribution and marketing areas most directly affected by ESG implementation. More than half of the organizations (57.1 percent) had established ESG departments, and

the majority had practiced ESG adoption for four years or more, reflecting maturity in sustainability integration.

Data collection was conducted through an online structured survey administered via Google Forms, a practical choice that enabled professionals to respond conveniently without disrupting their daily responsibilities. The questionnaire combined closed-ended Likert scale items with open-ended prompts. Closed-ended questions provided the quantitative foundation, measuring the level, frequency, and effectiveness of ESG initiatives, while open-ended responses captured qualitative insights on challenges, experiences, and organizational attitudes toward sustainability. The instrument underwent pre-testing and revisions to ensure clarity, reliability, and alignment with the study's objectives. This mixed method approaches quantitative in design but enriched by qualitative insights produced a balanced dataset that revealed both numerical trends and contextual depth.

The research instrument was developed to comprehensively measure the three pillars of ESG Environmental, Social, and Governance alongside indicators of organizational performance. Environmental metrics evaluated practices such as energy efficiency, renewable energy integration, waste management, and water conservation. Social measures assessed employee welfare, workplace safety, diversity, and corporate social responsibility (CSR) programs. Governance indicators explored oversight, transparency, ethical leadership, and compliance with regulatory standards. Financial outcomes were gauged through perceived profitability, operational efficiency, shareholder value, and risk mitigation. Responses were measured using four- and five-point Likert scales, allowing for standardization and statistical comparability across variables. The survey design was informed by internationally recognized ESG frameworks, including the Global Reporting Initiative (GRI) and the United Nations Global Compact, ensuring theoretical and methodological alignment with global standards while maintaining local relevance.

The instrument underwent expert validation and pilot testing to ensure clarity, reliability, and alignment with the study's objectives. Reliability analysis using Cronbach's Alpha yielded coefficients above the acceptable threshold of 0.70 for all ESG dimensions, confirming strong internal consistency of the self-made instrument.

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics—mean, percentage, frequency, and standard deviation were used to profile respondents and summarize ESG adoption patterns across organizations. To test the hypotheses, Spearman's rank correlation analysis was applied to examine the strength and direction of relationships between ESG dimensions and financial performance. This non-parametric technique was appropriate given the ordinal nature of the data and allowed robust interpretation even when normality assumptions were not fully met. Preliminary normality tests, including Shapiro-Wilk and Kolmogorov-Smirnov, were conducted to confirm the reliability of the chosen methods. The combination of descriptive and inferential analyses provided both a holistic overview and statistically validated conclusions, forming the empirical foundation for the subsequent discussion of results.

Throughout the research process, strict ethical standards were maintained to ensure participant trust and data integrity. Each respondent was informed of the study's purpose, assured of voluntary participation, and granted the right to withdraw at any time. Anonymity and confidentiality were rigorously upheld; no identifying details were collected, and all responses were securely stored. Survey questions were carefully worded to avoid bias and respect cultural sensitivities, particularly given the professional and organizational context of the participants. The commitment to transparency and honesty extended to data reporting both strengths and weaknesses were disclosed to preserve the objectivity of findings. These ethical safeguards reinforced the study's academic integrity and strengthened its

contribution to the evolving field of sustainability research.

In essence, this study's methodology was designed to ensure both scientific rigor and practical relevance. By combining a data-driven quantitative approach with expert-based sampling and ethical precision, the research produced credible and replicable insights into how ESG practices affect financial and organizational outcomes in Saudi Arabia's oil and gas sector. This structured yet flexible design not only aligns with global sustainability research standards but also provides a valuable blueprint for future studies seeking to understand the economic impact of ESG integration in emerging energy markets.

RESULTS AND DISCUSSION

This chapter presents the consolidated results of the study using descriptive and inferential statistics to assess the impact of Environmental, Social, and Governance (ESG) practices on organizational performance in Saudi Arabia's oil and gas sector. Data were drawn from 69 respondents occupying key operational and strategic roles, ensuring that the findings reflect both practical realities and policy-level insights.

This study analyzed respondents from Saudi Arabia's oil and gas sector using SPSS, combining descriptive and inferential statistics to assess the impact of Environmental, Social, and Governance (ESG) practices on organizational performance. The study sample revealed the following profile characteristics as shown in Table 1. Respondents were distributed across diverse corporate services (25.4%), legal/regulatory (23.8%), finance (14.3%), operations/trading (12.7%), ESG specialists (6.3%), and executive/top management (4.8%)—with 77.8% working in downstream operations. Over half (54%) of participants had been engaged in ESG activities for more than four years, indicating a growing maturity of sustainability integration within the industry.

The descriptive findings align with earlier studies such as Esiri et al. (2024b) and Jerab

(2025), which emphasize that environmental practices like energy efficiency and carbon capture directly enhance organizational productivity and long-term competitiveness.

Table 1
Profile of Respondents

	Frequency	Percent
Role in the oil and gas industry		
Corporate Services (HR, Admin, IT, PR, Secretarial & Support Functions)	16	25.4
ESG or Sustainability Specialist	4	6.3
Executive/Top Management	3	4.8
Finance & Accounting	9	14.3
Legal, Risk Management & Regulatory Compliance	15	23.8
Mid-Level Management	8	12.7
Operations, Trading & Supply	8	12.7
Which part of the oil and gas value chain best describes your work		
Claims	1	1.6
Downstream (Refining, Marketing & Petrochemicals)	49	77.8
Drilling and Workover	1	1.6
Internal Control	1	1.6
Midstream (Transportation & Storage)	3	4.8
Service/Technology Provider	5	7.9
Upstream (Exploration & Production)	3	4.8
How long has your company been integrating ESG policies		
Less than 1 year	1	1.6
1-3 years	5	7.9
4-6 years	34	54.0
More than 6 years	17	27.0
Not actively implementing ESG policies	6	9.5
Does your company have a dedicated ESG department or sustainability team		
In Development	20	31.7
No	7	11.1
Yes	36	57.1

Similarly, the strong adoption of social initiatives observed in this study reinforces the conclusions of Benni (2023) and Yucel and Yucel (2024), who argue that employee welfare and inclusive community engagement significantly strengthen stakeholder trust and corporate legitimacy. Moreover, the governance results support Markovskaya et al. (2021) and Rojo-Suárez et al. (2024), confirming that transparent board oversight and compliance mechanisms are key drivers of investor confidence and

profitability. These findings collectively demonstrate that the results of this research are consistent with global ESG literature, validating that sustainability integration contributes not only to ethical responsibility but also to financial performance.

Table 2
Environmental Aspect

	Mean	SD	Interpretation
Carbon capture and storage (CCS)	2.03	0.72	Partially Adopted
Renewable energy integration (e.g., solar, wind, hydrogen)	2.03	0.65	Partially Adopted
Energy efficiency programs	2.68	0.74	Fully Adopted
Sustainable waste management	2.49	0.84	Partially Adopted
Water conservation and treatment initiatives	2.21	0.83	Partially Adopted
Overall	2.29	0.80	Partially Adopted

	Mean	SD	Interpretation
How effective have these initiatives been in reducing your company's environmental impact	2.35	0.77	Partially Effective

	Frequency	Percent
Biggest Obstacles to Implementing Environmental Sustainability in Company		
High Capital Investment	40	63.5
Unclear regulatory frameworks	26	41.3
Resistance to change in corporate culture	19	30.2
Lack of Technological infrastructure	12	19.0
Level of Compliant with Environmental Laws and Sustainability Standards		
Fully Compliant with International Standards	28	44.4
Partially compliant but improving	28	44.4
Compliance efforts are in early stages	3	4.8
Not compliant	4	6.3

Table 2 presents the level of ESG adoption in terms of environmental aspect. ESG environmental practices were “partially adopted” overall ($M = 2.29$, $SD = 0.80$). Energy efficiency programs scored highest ($M = 2.68$), while carbon capture and renewable integration were lowest ($M = 2.03$). Effectiveness in reducing environmental impact was rated “partially effective” ($M = 2.35$). Barriers included high capital investment (63.5%), unclear regulations (41.3%), and corporate resistance (30.2%). Nonetheless, 44.4% reported full compliance with international standards.

Table 3
Social Aspect

	Mean	SD	Interpretation
Employee training on ESG and sustainability]	2.52	0.82	To a moderate extent
Community development programs]	2.52	0.82	To a moderate extent
Diversity and inclusion policies]	3.10	0.86	To a moderate extent
Health, safety, and labor rights improvements]	3.45	0.72	To a great extent
Overall	2.90	0.90	To a moderate extent

	Frequency	Percent
How does your company engage with stakeholders regarding ESG initiatives		
Public ESG reports and disclosures	34	54.0
Community outreach programs	32	50.8
Employee engagement programs	31	49.2
Partnerships with environmental organizations	33	52.4
None of the above	7	11.1
How important social responsibility (CSR) is in your company's ESG strategy		
Not Important	4	6.3
Slightly important	2	3.2
Moderately important	10	15.9
Very Important	42	66.7
Extremely Important	5	7.9
What challenges does your company face in improving social sustainability efforts		
Lack of budget for social programs	4	6.3
Resistance from company leadership	30	47.6
Limited employee engagement	31	49.2
Lack of clear government regulations on CSR	26	41.3
How does your company measure the impact of its social sustainability initiatives		
Employee and community feedback surveys	14	22.2
Regular ESG performance assessments	33	52.4
Social impact reports and key performance indicators (KPIs)	41	65.1
Third-party audits and certifications	19	30.2

Social sustainability scored higher ($M = 2.90$, $SD = 0.90$) as shown in Table 3. Health, safety, and labor rights led ($M = 3.45$) followed by diversity/inclusion ($M = 3.10$). Stakeholder engagement was strong, with public ESG reports (54%), community outreach (50.8%), and partnerships (52.4%) widely used. CSR was rated “very/extremely important” by 74.6% of respondents. Challenges included limited employee engagement (49.2%), leadership

resistance (47.6%), and weak regulatory support (41.3%). Companies most frequently measured social impact using Key Performance Indicators (65.1%) and ESG performance assessments (52.4%).

Table 4
Governance Aspect

	Mean	SD	Interpretation
How transparent is your company in reporting ESG performance	2.77	0.80	Moderately transparent
ESG disclosures in financial reports]	2.46	0.80	To a small extent
Board-level ESG committees]	2.43	0.78	To a small extent
Risk management frameworks for ESG]	2.73	0.77	To moderate extent
Compliance with ESG regulations (e.g., SEC, EU Green Deal)]	3.10	0.98	To moderate extent
Overall	2.70	0.86	To moderate extent
	Mean	SD	Interpretation
Do you believe stronger ESG governance improves investor trust in oil and gas companies	3.94	0.90	Agree
	Frequency	Percent	
What challenges does your company face in ESG governance			
Lack of standardized ESG reporting frameworks	32	50.8	
Limited availability of ESG data	46	73.0	
Investor skepticism about ESG claims	20	31.7	
Internal resistance to disclosure	15	23.8	

Governance practices were moderate ($M = 2.70$, $SD = 0.86$), with compliance to ESG regulations highest ($M = 3.10$), but board-level ESG committees ($M = 2.43$) and disclosures ($M = 2.46$) lower as revealed in Table 4. Respondents widely agreed ESG governance improves investor trust ($M = 3.94$). Barriers included limited ESG data (73%), lack of standardized reporting (50.8%), investor skepticism (31.7%), and internal resistance (23.8%). This highlights gaps in transparency and oversight despite growing institutional frameworks.

Table 5
Organizational Performance

	Mean	SD	Interpretation
Do you believe ESG adoption improves your company's long-term profitability	2.98	0.69	Perceived as Favorable
Has your company observed an increase in investor interest after ESG adoption?	2.98	0.58	Moderately Positive Growth

Since the study measures perceived outcomes rather than audited financial data, the interpretations "Perceived as Favorable," "Moderately Positive," and "Perceived as Healthy" were used to accurately reflect respondents' perceptions and avoid implying objective financial verification.

Table 6
ESG Related Financial Indicators, Challenges, and Opportunities

Financial Performance Indicators			
	Mean	SD	Interpretation
Return on Investment (ROI)	2.76	0.76	Healthy
Cost Savings from Sustainable Practices	2.64	0.73	Healthy
Shareholder Value	2.84	0.61	Healthy
ESG-related Risk Reduction	2.66	0.68	Healthy
Operational Efficiency and Cost Optimization	2.92	0.73	Healthy
Overall	2.76	0.71	Perceived as Healthy
	Frequency	Percent	
What are the biggest challenges your company faces in balancing ESG compliance with profitability			
High operational costs	41	65.1	
Regulatory uncertainty	42	66.7	
Resistance from investors or stakeholders	15	23.8	
Difficulty in measuring ESG impact	31	49.2	
What opportunities do you see for ESG-driven growth in the oil and gas industry			
Attracting ESG-conscious investors	41	65.1	
Improved regulatory compliance leading to business stability	51	81.0	
Technological innovations in clean energy	49	77.8	
Strengthened brand reputation and customer trust	34	54.0	

As revealed in Table 5, respondents agreed ESG adoption improves long-term profitability and investor interest ($M = 2.98$ each). In Table 6, financial indicators were rated "healthy": operational efficiency/cost optimization ($M = 2.92$), shareholder value ($M = 2.84$), ROI ($M = 2.76$), and ESG-related risk reduction ($M = 2.66$). Opportunities cited include improved regulatory compliance (81%), technological innovation (77.8%), attracting ESG-conscious investors (65.1%), and strengthened brand reputation (54%). Challenges remained high operational

costs (65.1%), regulatory uncertainty (66.7%), and difficulty measuring ESG impact (49.2%).

The moderating influence of Regulatory and Market Pressures was not statistically tested in this study due to methodological limitations. The correlation analysis focused solely on the direct associations among ESG dimensions and organizational performance. However, theoretical considerations support that external regulations and market dynamics likely shape how ESG practices translate into financial results, suggesting a potential area for future investigation.

Table 7
Spearman Correlation Between ESG Dimensions and Organizational Profitability

	Spearman r	p value	Decision	Conclusion
Environmental Aspect	0.437	0.001	Reject Ho	Significant
Social Aspect	0.614	0.001	Reject Ho	Significant
Governance Aspect	0.558	0.001	Reject Ho	Significant

Table 7 shows the correlation analysis between ESG dimensions and organizational profitability. Spearman's correlation revealed significant positive relationships ($p = 0.001$):

- Environmental Aspect ($r = 0.437$): moderate positive
- Social Aspect ($r = 0.614$): strong positive
- Governance Aspect ($r = 0.558$): moderate-strong positive

This confirms that ESG practices especially social initiatives significantly enhance organizational profitability and competitiveness. Governance reinforces investor trust and operational stability, while environmental initiatives, though less mature, contribute to performance improvement.

Integrated Findings. Across all dimensions, the results reveal a comprehensive picture of how Environmental, Social, and Governance (ESG) practices collectively drive organizational performance in Saudi Arabia's oil and gas sector. The "Social" aspect emerged as the strongest and most influential contributor to financial performance. High engagement in

employee welfare, diversity and inclusion, health and safety, and community development initiatives created measurable organizational benefits, reinforcing that socially responsible practices directly enhance productivity, reputation, and stakeholder trust. This strong alignment between social commitment and profitability underscores the transformative role of human capital and ethical responsibility as strategic assets.

Meanwhile, the "Governance" dimension provided the structural foundation that ensured accountability, transparency, and regulatory compliance. Governance mechanisms were found to support investor confidence and operational stability, though results also highlighted the need for more robust data management systems, standardized reporting frameworks, and stronger board-level oversight. These gaps indicate that while governance structures exist, further institutionalization is needed to sustain ESG momentum and ensure accountability at all organizational levels.

The "Environmental" dimension, although progressing, remains the most challenging. Initiatives such as carbon management, waste reduction, and energy efficiency were only moderately adopted due to high implementation costs, regulatory ambiguity, and limited access to sustainable technologies. Nonetheless, the moderate positive correlation between environmental practices and profitability suggests that when strategically managed, environmental sustainability can transition from a cost burden to a long-term investment in innovation, resilience, and market competitiveness.

Taken together, these findings validate ESG as more than a compliance framework it is a strategic enabler of value creation. The evidence reinforces both Stakeholder Theory and the Resource-Based View (RBV), demonstrating that organizations integrating ESG effectively leverage internal resources (people, systems, and processes) to meet external stakeholder expectations. This alignment not only enhances legitimacy and

competitiveness but also strengthens resilience in a rapidly evolving energy landscape. Ultimately, ESG integration in the Saudi energy sector signifies a paradigm shift where sustainability and profitability are no longer opposing goals but complementary pathways toward enduring business success.

Theoretical Implications. The strong correlation for social practices validates the Stakeholder Theory, emphasizing that meeting the needs of the most salient stakeholders' employees, communities, and investors—creates measurable benefits such as increased productivity, trust, and organizational legitimacy. This alignment demonstrates that socially responsible practices are not peripheral but central to achieving sustainable competitive advantage.

The positive correlation across all ESG dimensions, particularly governance, supports the Resource-Based View (RBV). Transparency, ethical leadership, and structured ESG systems act as inimitable organizational resources that generate a long-term competitive edge, such as improved investor attraction, regulatory compliance, and operational efficiency. Together, these findings reinforce that ESG integration strengthens both tangible and intangible assets, positioning sustainability as a core driver of strategic value creation.

Conclusions and Recommendations. This study demonstrates that integrating Environmental, Social, and Governance (ESG) practices in Saudi Arabia's oil and gas sector shows a significant positive relationship or association with organizational performance. While the findings reveal that ESG practices correlate positively with profitability and competitiveness, these results do not imply direct causation but rather indicate a statistically significant relationship. Environmental initiatives, particularly energy efficiency programs, show moderate effects on profitability but remain constrained by cost and regulatory gaps. Social practices emerge as the strongest driver of competitiveness, shareholder value, and investor trust, while governance structures reinforce operational

stability but still lack consistent board-level oversight.

Across all three ESG dimensions, the findings confirm that sustainability is no longer a peripheral activity but a strategic lever for financial performance and long-term resilience. Specifically, the Spearman correlation results confirm significant positive correlations between ESG dimensions (Environmental, Social, and Governance) and organizational profitability and competitiveness. The research also highlights cost, data, and regulatory challenges that hinder full ESG adoption but at the same time identifies clear opportunities in compliance, technological innovation, and attracting ESG-conscious investors. Together, these results validate stakeholder theory and the resource-based view, positioning ESG as both a compliance mechanism and a competitive advantage.

The strategic recommendations arising from the findings emphasize the need for a comprehensive and sustained approach to ESG integration within Saudi Arabia's oil and gas sector. Environmentally, companies should scale up initiatives focused on carbon reduction, renewable energy integration, and energy efficiency programs, targeting measurable progress within two years. On the social dimension, organizations are encouraged to institutionalize inclusive, health, and safety practices aimed at achieving a 90 percent employee satisfaction rate within three years. In terms of governance, strengthening ESG oversight at the board level is essential to ensure full compliance by 2027 while enhancing transparency and accountability frameworks. Addressing challenges and opportunities, companies should work toward reducing financial and regulatory barriers to ESG implementation by 40 percent through targeted policy reforms and government incentives by 2026. Finally, for long-term ESG integration, it is recommended that organizations embed ESG metrics into strategic planning and link executive performance bonuses to ESG outcomes by 2028, ensuring that sustainability

becomes a core driver of both operational excellence and financial success.

Finally, given the study's limited sample and geographic focus on Saudi Arabia's oil and gas industry, future research should adopt larger and more diverse cross-country samples, enabling comparative analysis across different economic, regulatory, and cultural contexts. Longitudinal designs are also recommended to capture the evolving nature of ESG implementation and its long-term financial and societal effects. Moreover, employing mixed-method approaches combining quantitative analysis with qualitative insights such as interviews or case studies can uncover the deeper behavioral, cultural, and institutional factors shaping ESG adoption. This expanded research direction will not only enhance the generalizability of findings but also contribute to a more holistic understanding of how sustainability practices can accelerate the global energy transition toward a low-carbon and socially responsible future.

Additionally, this study did not include an empirical test of the moderating variable Regulatory and Market Pressures, which future research may examine using regression or multi-group analysis to further validate its moderating influence on ESG-performance relationships.

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