



# Strategic innovation and sustainability in Indonesia's oil and gas industry: a hybrid systematic literature review and bibliometric analysis

Tandiarak Agustinus<sup>1</sup>, Purba John Tampil<sup>2</sup>

<sup>1,3</sup>Doctor of Management Study Program, Universitas Pelita Harapan, Jakarta, Indonesia

## ARTICLE INFO

### Article history:

Received Nov 04, 2025

Revised Nov 15, 2025

Accepted Dec 17, 2025

### Keywords:

Dynamic Capabilities;

Energy Transition;

Oil and Gas Industry;

Strategic Innovation;

Sustainability.

## ABSTRACT

This study explores how strategic innovation and sustainability converge in transforming Indonesia's oil and gas sector amidst the global energy transition. Using a hybrid methodology (Systematic Literature Review and bibliometric analysis of Scopus-indexed articles from 2014-2025), it maps significant research clusters, key contributors and emerging themes. A marked increase in publications following Indonesia's 2022 NDC update evidences growing alignment among dynamic capabilities, strategic innovation and sustainable practices (Cherepovitsyn & Rutenko, 2022; Nurhidayah et al., 2024). Yet, a persistent gap remains between corporate sustainability commitments and actual operational transformation. The paper's contribution lies in integrating Dynamic Capabilities Theory, Strategic Innovation Theory and Sustainability Transitions Theory into a unified framework to support a just, innovative and sustainable energy future.

This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.



## Corresponding Author:

John T Purba,

Doctor of Management Study Program,

Universitas Pelita Harapan,

Jalan M.H. Thamrin Boulevard No.1100, Klp. Dua, Kec. Klp. Dua, Kabupaten Tangerang, Banten, Jakarta,

15811, Indonesia,

Email: [John.Purba@uph.edu](mailto:John.Purba@uph.edu)

## INTRODUCTION

The global shift from fossil fuels toward renewables, low-carbon systems and energy efficiency is central to sustainability debates (Li et al., 2022; Temizel et al., 2024). Strategic innovation—via emerging technologies, novel market mechanisms, and adaptive business models—is fundamental in this transition (Chrysikopoulos et al., 2024; Hughes & Zabala, 2023; Munawar et al., 2025a; Safari et al., 2021), while sustainability demands balancing economic growth, environmental protection, and social equity (Ariyon et al., 2024; Gao et al., 2024).

In Indonesia's oil & gas sector, fossil fuels still supply over 80% of energy despite net-zero by 2060 commitments, which creates urgency for emission reduction, energy portfolio diversification, and resilience to regulatory and market shifts (Cherepovitsyn & Rutenko, 2022; Noguchi & Nobre, 2023; Rahman et al., 2021; Soemanto et al., 2023).

The institutional tension between longstanding fossil-fuel policies and decarbonization targets complicates firms’ strategic planning, often leading to incremental rather than transformational innovation; nonetheless, emerging niches such as circular bio-energy, digital energy systems, and institutionalized carbon reporting offer potential pathways forward (Kusuma et al., 2025; Rishanty et al., 2024; Sambodo et al., 2024; Sharaf-Addin, 2024).

Drawing on Dynamic Capabilities Theory (DCT), Strategic Innovation Theory (SIT), and Sustainability Transitions Theory (STT), this study uses a hybrid systematic literature review and bibliometric analysis to trace global trends and firm-level strategic responses, aiming to propose a robust framework for guiding Indonesia’s oil & gas sector through the energy transition under conflicting institutional pressures.

## RESEARCH METHOD

A systematic literature review using a bibliometric approach assesses trends, patterns, and key research entities within a discipline. Applying frameworks like PRISMA ensures the review is comprehensive and replicable (Chotisarn & Phuthong, 2025). The integration of a Systematic Literature Review (SLR) and bibliometric analysis is scientifically justified due to their complementary nature: SLR provides methodological rigor and conceptual depth, while bibliometric analysis enables objective mapping of research structures and trends. This combination enhances the accuracy of conceptual mapping by reducing bias and revealing relationships that may not be captured by a single method. Inclusion criteria were: (1) publications in English; (2) published by October 29, 2025; and (3) focused on energy transition, strategy, and sustainability. Bibliometric analysis using VOSviewer visualized citation networks, author collaborations, and keyword co-occurrences, clarifying the field’s intellectual structure and dynamics (Al Montaser et al., 2025; Passas, 2024). Together, these methods support a comprehensive understanding of the evolution and future direction of the study domain (Marzi et al., 2025).

The preliminary phase of this academic investigation involves the discovery of keywords, attainable through a macro method (top-down), progressing from general search avenues to more particular studies and topics. Consequently, after evaluating the limitations of prior research and the scarcity of studies addressing strategic innovation and sustainability in the context of the energy transition, this study incorporates the terms “energy transition,” “strategic innovation,” and “sustainability” as key components in the article’s title, abstract, and keyword sections. Additionally, researchers employ the Scopus database for other investigative purposes, including literature reviews, locating subject-matter experts, and monitoring research trends.

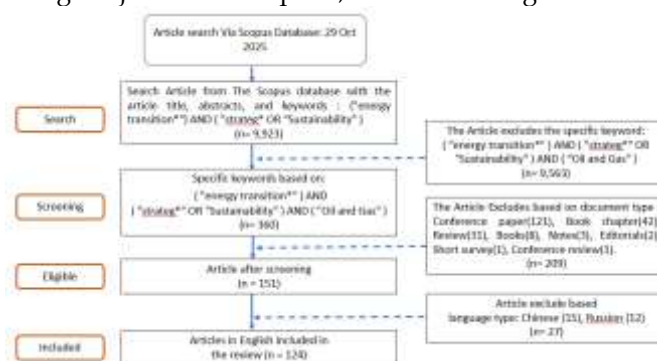


Figure1. Systematic Literature Review Information Flow using PRISMA

The PRISMA technique offers a systematic framework for the review and synthesis of literature, ensuring comprehensive inclusion of relevant studies in the oil and gas sector. The

findings of this analysis will provide valuable insights into the current research landscape and highlight effective ways for integrating sustainable technologies within the oil and gas industry.

The specified inclusion criteria were papers published till October 26, 2025. This timeframe allows for an in-depth examination of recent developments in sustainable practices and innovation management within the oil and gas sector. This analysis aims to provide a solid foundation for future research, emphasizing the need of aligning innovation management with sustainability goals in the oil and gas industry. This review, published in English, will contribute to the discussion on successful strategies for achieving a low-carbon future in the oil and gas sector, focusing on sustainability and innovation management. The assessment will analyze the implications of governmental policies and funding as critical drivers for low-carbon advancement in the sector.

On October 26, 2025, the Scopus database was accessed using the article title, abstract, and keywords, utilizing a structured search command with the query string "(("energy transition\*") AND ("strateg\*" OR "Sustainability"))" for document retrieval. This query was specifically designed to locate publications that encompass the themes of energy transition, strategic innovation, and sustainability across several academic disciplines. The investigation included all relevant documents published from 2000 to 2025, ensuring comprehensive coverage of historical developments and contemporary research trends. The total number of articles related to the given keywords is 9,923, with 360 pieces specifically addressing the oil and gas sector (see to Figure 1). Subsequent to these findings, a screening procedure categorizes documents based on their classification. Documents are omitted based on type: conference papers (121), book chapters (42), reviews (31), books (8), notes (3), editorials (2), brief surveys (1), conference reviews (1), and non-English documents (27) – notably Chinese (15) and Russian (12), culminating in a total of 236 items. The screening results, categorized by document types, yielded 124 articles. This document is subsequently assessed in this study to address research questions above.

## RESULTS AND DISCUSSION

The conclusions of this study are derived on an analysis of 124 documents sourced from the Scopus database, employing a specific search string related to strategic innovation, sustainability, and the energy transition in Indonesia's oil and gas industry. This dataset facilitates a comprehensive examination of publication frequency over time, significant contributing journals, distinguished authors and institutions, and the geographic dispersion of research. Furthermore, employing VOSviewer for bibliometric mapping enables the representation of the intellectual framework and dominant topic clusters within this field. The next sections thoroughly explain these findings to address the three research questions established in this study. RQ1: Is the research on strategic innovation and sustainability in the Indonesian oil and gas sector still a relevant subject for future academic inquiry in the light of the global energy transition?

Bibliometric statistics from the Scopus database indicate that study on strategic innovation and sustainability in the oil and gas sector, especially with energy transition, is significantly pertinent for future academic investigation. The continuous rise in annual publications from 2020 to 2025 highlights that academic interest in energy transition, strategic innovation, and sustainability has both endured and intensified in reaction to global decarbonization demands and Indonesia's climate obligations, including its Enhanced Nationally Determined Contributions (NDCs) (Dongo & Relvas, 2025; Nurhidayah et al., 2024).

The Country-Contribution Map (Figure 3) depicts a robust worldwide research environment for strategic innovation and sustainability in the oil and gas sector, highlighting significant contributions from the United Kingdom, United States, China, the Netherlands, and Canada. Indonesia's omission from the top-ranked nations in this dataset highlights a notable research gap and opportunity. Further insight into this intellectual dynamism is offered by Figure

4, which visualizes the co-authorship and collaboration network among scholars and institutions. The structure of this network exhibits increasing density and interconnectivity, particularly among authors from Asia-Pacific and Europe.

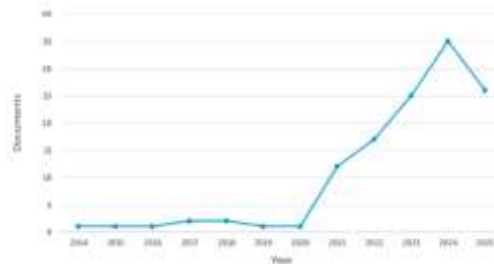


Figure 2. Number of publications by year,  
 Source : Processed by researcher from Scopus Database (2025)

In a resource-dependent country such as Indonesia, which must reconcile its dependence on fossil fuels with the necessity for low-carbon innovation, this gap underscores the importance and immediacy of targeted academic research into the strategic innovation and sustainability trajectories of its oil and gas sector.

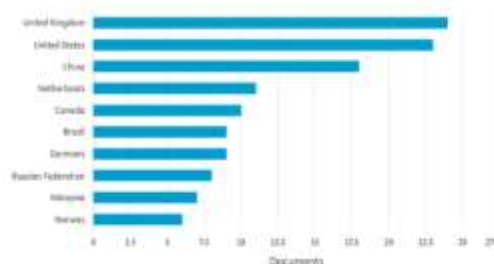


Figure 3. Number of articles by country or territory (top 10 countries)  
 Source : Processed by researcher from Scopus Database (2025)

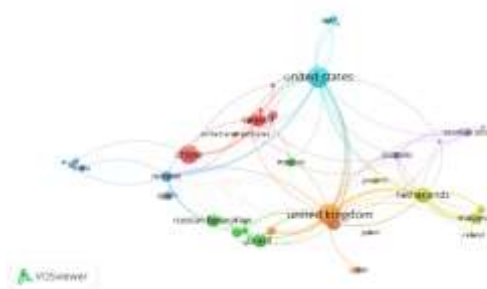


Figure 4 Network country visualization  
 Source : Output VOSviewer software

This clustering indicates the formation of persistent collaborative groups dedicated to sustainable energy systems, policy adaptation, and technological innovation (Munawar et al., 2025b; Rishanty et al., 2024). The enhancement of academic collaboration is a strong indicator of the intellectual vitality and future potential of the field. Research on energy transition and innovation is becoming increasingly interdisciplinary, merging engineering, management, and environmental policy to establish a holistic framework for sustainable industrial transformation (Gao et al., 2024; Semenova & Martínez Santoyo, 2024).

Figures 5 and 6 corroborate this conclusion by identifying the most prolific universities and the leading publications in this topic. Institutions such as the Research Institute of Petroleum Exploration and Development, Universidade Federal do Rio de Janeiro, Delft University of Technology, and Swinburne University of Technology Sarawak Campus exemplify active participation, indicating both regional and institutional dedication to sustainability-focused innovation research.

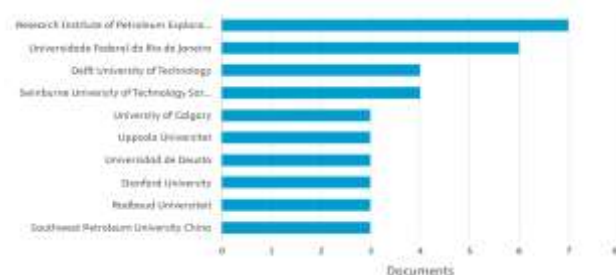


Figure 5. Number of articles by affiliation (top 10 affiliations)  
Source : Processed by researcher from Scopus Database (2025)

The existence of publications such as *Energies*, *Sustainability* (Switzerland), and *Energy Research & Social Science* as prominent publication venues validates the scientific credibility and interdisciplinary attractiveness of this domain (Ramos Farroñán et al., 2025). The prominence of these journals—each indexed in Scopus—demonstrates that research on this topic has achieved methodological sophistication and international recognition, reflecting enduring academic significance (Wong et al., 2022).

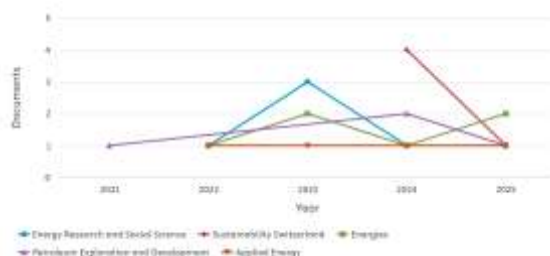


Figure 6. Number of articles by sources (top 10 sources)  
Source : Processed by researcher from Scopus Database (2025)

The growing volume of publications, expanding global collaboration, and increasing institutional engagement indicate that strategic innovation and sustainability in the oil and gas sector have become central to discussions on the global energy transition. Current research reflects a shift from descriptive accounts toward analytical frameworks emphasizing dynamic capabilities, innovation ecosystems, and governance transformation (Cherepovitsyn & Rutenko, 2022; Teece, 2018). This progression aligns with Indonesia's focus on renewable energy development, diversification, and carbon-neutral goals, positioning its oil and gas sector as a significant domain for academic inquiry and practical change. Findings for RQ1 confirm that the study of strategic innovation and sustainability in Indonesia's oil and gas industry is a dynamic and expanding field, strongly linked to the global transition agenda. The increasing publications, diverse international contributions, and strengthened research networks underscore its ongoing academic and policy relevance. As global energy systems evolve, this research area is expected to remain crucial in discussions of industrial adaptation, technological innovation, and sustainable economic transformation (Dongo & Relvas, 2025; Kusuma et al., 2025; Nosi et al., 2026; Nurhidayah et al.,

2024). RQ2: What is the existing intellectual and conceptual framework of research regarding strategic innovation and sustainability in Indonesia's oil and gas sector, as evidenced by publication trends, key contributors, and dominant research clusters?

The bibliometric and thematic analysis reveals that the intellectual framework of research on strategic innovation and sustainability in the oil and gas sector is shaped by an expanding and interconnected body of work. The term co-occurrence network (Figure 7) illustrates that research in this domain is organized into several interrelated conceptual clusters, including energy transition, sustainability, renewable energy, and the oil and gas industry. Notably, the research clusters indicate a clear shift in scientific focus from predominantly technology-oriented solutions toward a more integrated perspective that combines strategic innovation and sustainability governance. While earlier studies centered on renewables and efficiency improvements, more recent clusters link energy transition with dynamic capabilities, business model transformation, policy adaptation, and governance. This evolution reflects growing recognition that effective energy transition in the oil and gas industry depends not only on technological advancement but also on strategic and institutional innovation. These patterns reinforce the view that energy transition constitutes a systemic transformation toward low-carbon development rather than a purely technological change (Cherepovitsyn & Rutenko, 2022; Gao et al., 2024; Kang, 2025).

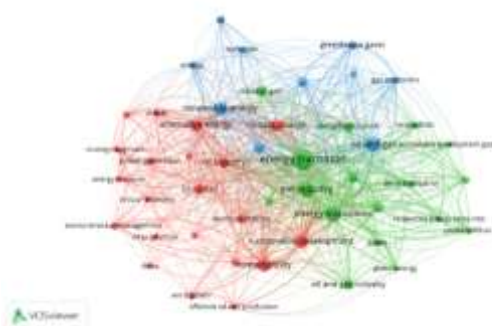


Figure 7 Co-occurrence framework and representation of key term  
 Source : Output VOSviewer software

The keyword-frequency table corroborates the previous result by emphasizing prominent terms such as “energy transition” (51 occurrences, link strength 76), “gas industry” (28, 67), and “sustainable development” (20, 52). These indicate that contemporary study extends beyond environmental issues to investigate the industrial and strategic ramifications of decarbonization (Dadd et al., 2023; Panait et al., 2024). The simultaneous presence of “renewable energy” and “oil industry” suggests an emphasis on integration rather than the complete phasing out of fossil fuel systems, indicating that the sector has evolved to reconcile energy security, corporate strategy, and sustainable innovation (Semenova & Martínez Santoyo, 2024; Sivonen & Kivimaa, 2023).

**Table 2.** The most frequently occurring keywords

Rank	Keyword	Occurrences	Total link strength
1	Energy transition	51	76
2	Gas Industry	28	67
3	Energy transitions	26	58
4	Sustainable development	20	52
5	Oil and gas	25	48
6	Renewable energy	19	46
7	Alternative energy	17	44
8	Sustainability	21	43

9	Renewable energies	13	38
10	Oil Industry	13	36

Source : Output VOSviewer software

Figure 8 illustrates the distribution of principal contributors, highlighting the increasing prominence of Asian scholars (e.g., How, B.S.; Liu, H.; Lam, H.L.) whose research on circular economy and technological innovation signifies a geographic transition in sustainability studies towards developing economies (Ilesanmi, 2024; Wong et al., 2022).

The institutional analysis (Figure 5) similarly emphasizes Asian institutions—such as Swinburne University of Technology Sarawak and the Research Institute of Petroleum Exploration and Development—indicating that a significant portion of new research on energy transition and sustainability now originates in the Asia-Pacific region, a trend of strategic importance for Indonesia.



Figure 8. Number of articles by author (top 10 authors)  
Source : Processed by researcher from Scopus Database (2025)

The journal distribution (Figure 6) indicates that prominent publications such as *Energies*, *Sustainability* (Switzerland), and *Energy Research & Social research* situate this domain at the convergence of environmental research, business strategy, and engineering innovation. This convergence signifies the theoretical amalgamation of Dynamic Capabilities Theory (Teece, 2018), Strategic Innovation Theory (Hamel, 2001), and Sustainability Transitions Theory (Geels, 2002), illustrating the field's progression from an emerging to a mature research domain (Kusuma et al., 2025; Munawar et al., 2025b; Rishanty et al., 2024).

The findings for RQ2 indicate that the domain's intellectual and thematic framework is characterized by: (1) a robust conceptual core focused on energy transition and sustainability; (2) a rising presence of Asian contributors; (3) interdisciplinary methodological foundations rooted in organizational and socio-technical theories; and (4) a unified international publication ecosystem demonstrating increasing global and regional integration. Collectively, these attributes affirm that the study of strategic innovation and sustainability within the oil and gas industry is both theoretically sound and thematically varied, establishing a strong foundation for additional theoretical and practical exploration. RQ3: What theoretical implications and practical strategies emerge for managing the energy transition in this sector—and what gaps remain?

This section draws implications from the thematic clusters identified in RQ2. The keyword-co-occurrence network highlights dominant themes such as “energy transition” and “sustainability,” alongside less-developed links involving “strategic innovation,” “governance,” and “policy adaptation.” These patterns suggest that although technological and environmental issues are well covered, the strategic and institutional dimensions—especially in developing contexts like Indonesia—remain insufficiently integrated (Nosi et al., 2026; Nurhidayah et al., 2024).

Three theoretical foundations are central: Dynamic Capabilities Theory (DCT), emphasizing firms' ability to reconfigure resources; Strategic Innovation Theory (SIT), focusing on business model renewal and stakeholder systems; and Sustainability Transitions Theory (STT), explaining socio-technical regime shifts (Geels, 2002; Hamel, 2001; Teece, 2018). Their limited

overlap in current research indicates a lack of comprehensive models linking organizational adaptation to systemic transition.

Oil and gas firms must advance from incremental sustainability efforts to transformative strategies involving renewable energy, circular economy practices, and governance reforms (Dadd et al., 2023; Gao et al., 2024). Innovation ecosystems – such as hydrogen, CCS, and smart grids – are critical enablers of decarbonization (Hughes & Zabala, 2023; Safari et al., 2021). Yet inconsistent regional implementation underscores the need in Indonesia for stronger alignment between corporate innovation, regulatory frameworks, and sustainable governance.

Research gaps persist in policy integration, stakeholder engagement, and sustainability-performance evaluation, offering opportunities for future studies using blended approaches such as bibliometrics, case analyses, and policy review (Salygin & Lobov, 2021; Semenova & Martínez Santoyo, 2024). Moreover, the link between strategic innovation and equity-oriented just transition remains underexplored despite its growing relevance (Ilesanmi, 2024; Panait et al., 2024).

In conclusion, findings for RQ3 show that although core theoretical frameworks exist, their contextualization for Indonesia's oil and gas sector remains limited. Key insights include: (1) the need to integrate dynamic capabilities with transition theories; (2) the rising importance of innovation-oriented governance; and (3) the role of collaborative networks in enabling systemic change. Strategic priorities involve building innovation ecosystems, expanding renewable energy investments, and reforming institutional governance to align climate goals with practical actions. The conceptual and empirical gaps identified affirm this domain as an essential and evolving area for further investigation into how strategic innovation can support Indonesia's energy transition.

### Conceptual Integration: Connecting Innovation, Sustainability, and Energy Transition

This study's theoretical synthesis is depicted in two interconnected diagrams, demonstrating the interaction of innovation, capabilities, and sustainability in shaping Indonesia's energy transition within the oil and gas sector. The initial framework (Figure 9) is based on three principal theories: Dynamic Capabilities Theory (DCT), which elucidates how firms cultivate, integrate, and reconfigure competencies to adapt to evolving environments (Teece, 2018); Strategic Innovation Theory (SIT), which highlights business-model transformation and stakeholder systems (Crossan & Apaydin, 2010); and Sustainability Transitions Theory (STT), which contextualizes firm-level dynamics within wider socio-technical systems (Geels, 2002). Collectively, they demonstrate that Indonesia's shift is a multifaceted interaction of internal competencies, strategic innovation, and systemic sustainability.

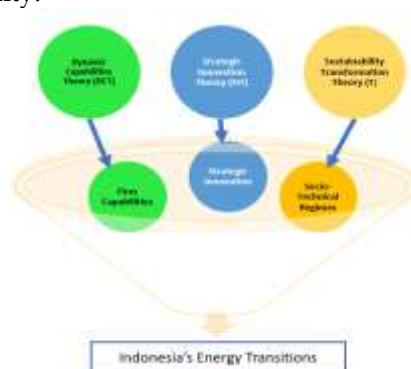


Figure 9 Theoretical Framework  
Source : created by researcher (2025)

Figure 10 translates this framework into a practical model: innovation (as the expression of organizational capabilities through technology adoption and business model transformation) augments sustainability (environmental conservation and long-term viability), which subsequently

facilitates the energy transition in the Indonesian oil and gas sector (Cherepovitsyn & Rutenko, 2022; Elkington, 2013). The initial diagram elucidates the reasons and mechanisms by which capacities and innovation influence sustainability transitions, while the subsequent diagram illustrates the practical implications of this relationship (Griffiths et al., 2025; Sovacool, 2016).



Figure 10 A Practical Conceptual Model  
Source : created by researcher (2025)

In conclusion, the integrated dual-framework models emphasize that dynamic capacities support innovation, which fosters sustainability, thereby facilitating a fair and effective energy transition. This multi-theoretical framework integrates bibliometric and systematic-review findings, elucidating how Indonesian oil and gas companies can strategically innovate, develop skills, and pursue sustainability-oriented transformations in response to global decarbonization efforts.

## CONCLUSION

This paper provides a multi-theoretical analysis of how strategic innovation, organizational capabilities, and sustainability collectively shape Indonesia's oil and gas sector in the global energy transition. Using a hybrid approach—systematic literature review and bibliometric analysis—it captures both broad scholarly patterns and firm-level strategic implications. The convergence of innovation, capabilities, and sustainability has become a central research domain aligned with global decarbonization efforts and Indonesia's energy priorities (Cherepovitsyn & Rutenko, 2022; Dongo & Relvas, 2025; Nurhidayah et al., 2024). The main contribution of this research is its integrated, multi-theoretical perspective linking strategic innovation, dynamic capabilities, and sustainability transitions in oil- and gas-dependent developing countries. Using a combined systematic literature review and bibliometric analysis, the study shows that energy transition is not only a technological issue but also a strategic and institutional transformation, offering a transferable framework for managing decarbonization in similar developing economy contexts.

For RQ1, increasing publication volume, expanding authorship networks, and international collaboration confirm the continued relevance of innovation and sustainability research in emerging oil and gas economies (Kusuma et al., 2025; Nosi et al., 2026). For RQ2, thematic clusters on energy transition, sustainability, renewables, innovation strategy, and digital transformation reveal a multidisciplinary foundation strengthened by rising Asia-Pacific contributions (Munawar et al., 2025b; Rishanty et al., 2024). For RQ3, the integration of Dynamic Capabilities Theory, Strategic Innovation Theory, and Sustainability Transitions Theory illustrates how firms progress through transition: capabilities foster innovation, innovation supports sustainability, and sustainability enables systemic change (Geels, 2002; Teece, 2018).

Managerially and institutionally, Indonesian oil and gas firms must evolve from compliance-driven sustainability to strategic transformation by developing dynamic capabilities, investing in renewables and digital systems, and adopting carbon-management practices, while policymakers strengthen innovation ecosystems and regulatory alignment (Dadd et al., 2023; Gao et al., 2024; Kusuma et al., 2025).

In conclusion, strategic innovation and sustainability function as interconnected drivers of Indonesia's energy transition. The shift from fragmented to integrated conceptual frameworks

signals a maturing knowledge base that links innovation, capabilities, and sustainability, offering direction for empirical research and strategic alignment between industrial competitiveness and long-term sustainability.

## References

- Al Montaser, M., Masha, M., Sujana, S., Hussein, A. H. M. A., Mohammad Abdullah, A. M., & Khaled, A. (2025). Trends in employee performance: A comprehensive review and bibliometric analysis using Scopus and WOS. *SA Journal of Human Resource Management*, 23, 1-13. <https://doi.org/10.4102/sajhrm.v23i0.2887>
- Ariyon, M., Putra, R. M., & Kausarian, H. (2024). Multidimensional Analysis of Sustainability and Integration of Sustainable Energy Practices in Petroleum Field Management. *International Journal of Energy Economics and Policy*, 14(4), 654-662. <https://doi.org/10.32479/ijeep.15571>
- Cherepovitsyn, A., & Rutenko, E. (2022). Strategic Planning of Oil and Gas Companies: The Decarbonization Transition. *Energies*, 15(17). <https://doi.org/10.3390/en15176163>
- Chotisarn, N., & Phuthong, T. (2025). Place Branding as a Soft Power Tool: A Systematic Review, Bibliometric Analysis, and Future Research Directions. *International Review of Management and Marketing*, 15(4), 123-142. <https://doi.org/10.32479/irmm.18519>
- Chrysikopoulos, S. K., Chountalas, P. T., Georgakellos, D. A., & Lagodimos, A. G. (2024). Decarbonization in the Oil and Gas Sector: The Role of Power Purchase Agreements and Renewable Energy Certificates. *Sustainability (Switzerland)*, 16(15). <https://doi.org/10.3390/su16156339>
- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47(6), 1154-1191. <https://doi.org/10.1111/j.1467-6486.2009.00880.x>
- Dadd, E., Kirou, V., Velasquez, J., Kalhori, S. K., & Galatro, D. (2023). Sustainability and future of the oil and gas industry: a mini-review. *DYNA (Colombia)*, 90(226), 130-138. <https://doi.org/10.15446/dyna.v90n226.105963>
- Dongo, D. F., & Relvas, S. (2025). Evaluating the role of the oil and gas industry in energy transition in oil-producing countries: A systematic literature review. *Energy Research and Social Science*, 120. <https://doi.org/10.1016/j.erss.2024.103905>
- Elkington, J. (2013). Enter the triple bottom line. *The Triple Bottom Line: Does It All Add Up*, 1(1986), 1-16. <https://doi.org/10.4324/9781849773348>
- Gao, L., Zhang, Y., & Lu, K. (2024). A Study on the Driving Mechanism of Chinese Oil and Gas Companies' Transition to Renewable Energy. *Sustainability (Switzerland)*, 16(18). <https://doi.org/10.3390/su16188260>
- Geels, F. W. (2002). Technological transitions as evolutionary reconfiguration processes: A multi-level perspective and a case-study. *Research Policy*, 31(8-9), 1257-1274. [https://doi.org/10.1016/S0048-7333\(02\)00062-8](https://doi.org/10.1016/S0048-7333(02)00062-8)
- Griffiths, S., Sovacool, B., Iskandarova, M., & Walnum, H. J. (2025). Bridging the gap between defossilization and decarbonization to achieve net-zero industry. *Environmental Research Letters*, 20(2). <https://doi.org/10.1088/1748-9326/adaed6>
- Hamel, G. (2001). Leading the revolution: *Strategy & Leadership*, 29(1), 4-10. <https://doi.org/10.1108/10878570110367141>
- Hughes, E., & Zabala, A. (2023). Net zero by choice? Oil and gas industry motivations for the energy transition and public policy in Scotland. *Climate Policy*, 23(9), 1115-1131. <https://doi.org/10.1080/14693062.2023.2262439>
- Ilesanmi, J. (2024). IMPORTANCE OF ECO-ENTREPRENEURSHIP AS A TOOL FOR CLIMATE ACTION AND LOW-CARBON TRANSITION IN DEVELOPING COUNTRIES: A CASE STUDY OF NIGERIA. *Journal of Sustainable Development Law and Policy*, 15(2), 298-327. <https://doi.org/10.4314/jsdlp.v15i2.11>
- Kang, Y. (2025). Sustainable Development Through Energy Transition: The Role of Natural Resources and Gross Fixed Capital in China. *Sustainability (Switzerland)*, 17(1). <https://doi.org/10.3390/su17010083>
- Kusuma, G., Sharmina, M., & Gallego-Schmid, A. (2025). Decarbonising the electricity sector in Indonesia: Contradictions in national policies. *Procedia CIRP*, 135, 1113-1118. <https://doi.org/10.1016/j.procir.2025.01.086>
- Li, M., Trencher, G., & Asuka, J. (2022). The clean energy claims of BP, Chevron, ExxonMobil and Shell: A mismatch between discourse, actions and investments. *PLOS ONE*, 17(2 February).

- <https://doi.org/10.1371/journal.pone.0263596>
- Marzi, G., Balzano, M., Caputo, A., & Pellegrini, M. M. (2025). Guidelines for Bibliometric-Systematic Literature Reviews: 10 steps to combine analysis, synthesis and theory development. *International Journal of Management Reviews*, 27(1), 81–103. <https://doi.org/10.1111/ijmr.12381>
- Munawar, A., Prabowo, H., Abdinagoro, S. B., & Alamsjah, F. (2025a). Dynamic Capabilities and Green Innovation in Oil and Gas Sector: The Mediating Effects of Strategic Agility. *International Journal of Innovation and Technology Management*, 22(2). <https://doi.org/10.1142/S0219877025500051>
- Munawar, A., Prabowo, H., Abdinagoro, S. B., & Alamsjah, F. (2025b). Dynamic Capabilities and Green Innovation in Oil and Gas Sector: The Mediating Effects of Strategic Agility. *International Journal of Innovation and Technology Management*, 22(2). <https://doi.org/10.1142/S0219877025500051>
- Noguchi, A., & Nobre, F. S. (2023). Oil and Gas Companies – Are They Shifting to Renewables? A Study of Policy Mixes for Energy Transition in Brazil. *BAR - Brazilian Administration Review*, 20(1). <https://doi.org/10.1590/1807-7692bar2023220087>
- Nosi, Wibowo, B., Suryanegara, E., Susanto, B., & Anggraeni, A. (2026). Who truly drives sustainability? A critical review of stakeholder marketing practices in Indonesia (2022–2025) through a Systematic Bibliometric Review. *Multidisciplinary Science Journal*, 8(4). <https://doi.org/10.31893/multiscience.2026259>
- Nurhidayah, L., Alam, S., Utomo, N. A., & Suntoro, A. (2024). Indonesia's Just Energy Transition: The Societal Implications of Policy and Legislation on Renewable Energy. *Climate Law*, 14(1), 36–66. <https://doi.org/10.1163/18786561-bja10047>
- Panait, M., Iacob, Ș., Voica, C., Iacovoivu, V., Iov, D., Mincă, C., & Teodorescu, C. (2024). Navigating through the Storm—The Challenges of the Energy Transition in the European Union. *Energies*, 17(12). <https://doi.org/10.3390/en17122874>
- Passas, I. (2024). Bibliometric Analysis: The Main Steps. *Encyclopedia*, 4(2), 0. <https://doi.org/10.3390/encyclopedia4020065>
- Rahman, A., Dargusch, P., & Wadley, D. (2021). The political economy of oil supply in Indonesia and the implications for renewable energy development. *Renewable and Sustainable Energy Reviews*, 144. <https://doi.org/10.1016/j.rser.2021.111027>
- Ramos Farroñán, E. V., Lizarzaburu Aguinaga, D. A., Cruz Salinas, L. E., Farfán Chilicaus, G. C., Otiniano León, M. Y., Mogollón García, F. S., & Pérez Nájera, C. (2025). Organizational Strategies for Energy Sustainability: Systematic Review of the Literature Spanning 2020–2024. *Sustainability (Switzerland)*, 17(12). <https://doi.org/10.3390/su17125252>
- Rishanty, A., Sambodo, M. T., Silalahi, M., & Hambali, E. (2024). Zero-Waste Bioenergy to Lower Energy Transition Risks in Indonesia – A Circular Economy Practice on Methane Capture in Biogas Production from POME. *Bioenergy Research*, 17(3), 1930–1942. <https://doi.org/10.1007/s12155-024-10754-3>
- Safari, A., Roy, J., & Assadi, M. (2021). Petroleum sector-driven roadmap for future hydrogen economy. *Applied Sciences (Switzerland)*, 11(21). <https://doi.org/10.3390/app112110389>
- Salygin, V. I., & Lobov, D. S. (2021). Defining major oil and gas companies' development strategies in the era of energy transition. *Vestnik MGIMO-Universiteta*, 14(5), 149–166. <https://doi.org/10.24833/2071-8160-2021-5-80-149-166>
- Sambodo, M. T., Silalahi, M., & Firdaus, N. (2024). Investigating technology development in the energy sector and its implications for Indonesia. *Heliyon*, 10(6). <https://doi.org/10.1016/j.heliyon.2024.e27645>
- Semenova, T., & Martínez Santoyo, J. Y. (2024). Economic Strategy for Developing the Oil Industry in Mexico by Incorporating Environmental Factors. *Sustainability (Switzerland)*, 16(1). <https://doi.org/10.3390/su16010036>
- Sharaf-Addin, H. H. H. (2024). Carbon Management Accounting System and Corporate Environmental Performance: A Conceptual Framework. *International Journal of Energy Economics and Policy*, 14(2), 304–310. <https://doi.org/10.32479/ijeeep.15595>
- Sivonen, M. H., & Kivimaa, P. (2023). Politics in the energy-security nexus: an epistemic governance approach to the zero-carbon energy transition in Finland, Estonia, and Norway. *Environmental Sociology*, 10(1), 55–72. <https://doi.org/10.1080/23251042.2023.2251873>
- Soemanto, A., Mohi, E., Indra Al Irsyad, M. I., & Gunawan, Y. (2023). The Role of Oil Fuels on the Energy Transition toward Net Zero Emissions in Indonesia: A Policy Review. *Evergreen*, 10(4), 2074–2083. <https://doi.org/10.5109/7160867>
- Sovacool, B. K. (2016). How long will it take? Conceptualizing the temporal dynamics of energy transitions. *Energy Research and Social Science*, 13, 202–215. <https://doi.org/10.1016/j.erss.2015.12.020>

- Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40–49. <https://doi.org/10.1016/j.lrp.2017.06.007>
- Temizel, C., Başer, A., Saracoglu, O., Tural, T., Saputelli, L., & Torsæter, O. (2024). Energy Transition in the Oil and Gas Industry. In *Energy Transition in the Oil and Gas Industry*. <https://doi.org/10.1201/9781003282273>
- Wong, F. W. M. H., Foley, A., Furszyfer-del Rio, D. F., Rooney, D., Shariff, S., Dolfi, A., & Srinivasan, G. (2022). Public perception of transitioning to a low-carbon nation: a Malaysian scenario. *Clean Technologies and Environmental Policy*, 24(10), 3077–3092. <https://doi.org/10.1007/s10098-022-02345-7>