

INDONESIA'S ECONOMIC STRUCTURE TRANSFORMATION 2026: FROM DEFENSIVE STABILITY TO ACCELERATED UPSTREAM PROCESSING AND AN INCLUSIVE DIGITAL ECONOMY

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Abstract

This article analyses the transformation of Indonesia's economic structure in 2026, which will shift from a defensive stability strategy—with stable GDP growth of 5.11 per cent in 2025—towards accelerating upstream processing (mineral, energy and agricultural downstreaming) and an inclusive digital economy as pillars of national sovereignty. The method used in this study is a literature review. The results show that the downstreaming programme targets Rp3,464.5 trillion in investment to create 1 million jobs and USD50 billion in added value, while the digital ecosystem targets USD146 billion in the digitisation of 20 million MSMEs and equitable access in 3T regions. The integration of these two pillars, supported by the PDP Law regulations and Industry 4.0 upskilling, has the potential to increase the contribution of digital manufacturing to GDP to 35 per cent by 2030, although the challenges of regional disparities and human resources need to be addressed through the synergy of the state budget and green growth engines to achieve the 8 per cent growth target and Indonesia Emas.

Keywords: mineral downstreaming, inclusive digital economy, national reindustrialisation, structural transformation, Probis 2026, SME digitalisation, defensive stability, Asta Cita economy

Introduction

The Indonesian economy entered 2026 with a foundation of resilience that had been tested throughout the post-pandemic decade, during which Gross Domestic Product (GDP) growth was consistently maintained at around 5 per cent, reflecting an effective defensive stability strategy in the face of global turmoil such as supply chain disruptions and commodity price fluctuations (Central Statistics Agency, 2026a); (Rong, 2022) . Data from the Central Statistics Agency shows that GDP in 2025 will reach 5.11 per cent growth, higher than 5.03 per cent in 2024, with a nominal GDP of USD1,396.30 billion and a per capita GDP of USD4,960.33, placing Indonesia as the 8th largest economy in the world based on purchasing power parity (PPP) (Central Statistics Agency, 2026a; Ministry of Coordinating Economic Affairs, 2026b). This strategy, which focuses on inflation control, rupiah stability, and adaptive fiscal stimulus, has successfully mitigated external shocks, but now faces an urgent need to shift to a phase

of structural acceleration in order to achieve the medium-term growth target of 8 per cent (Ministry of Coordinating Economic Affairs, 2026c).

Defensive stability during 2020-2025 was characterised by the role of the state budget as a *shock absorber*, in which economic stimulus packages and business deregulation drove household consumption recovery and manufacturing expansion, as reflected in a stable manufacturing index above 51.2 and the Jakarta Composite Index (JCI) reaching an *all-time high* of 24 at the end of 2025 (Coordinating Ministry for Economic Affairs, 2026a). The Coordinating Ministry for Economic Affairs recorded growth of 5.04 per cent (yoy) in the third quarter of 2025, supported by foreign capital flows returning to government bonds and Indonesian stocks after a period of weakness (Coordinating Ministry for Economic Affairs, 2026a; Ministry of Finance, 2026). However, dependence on exports of raw commodities such as nickel and bauxite—which contribute to the balance of payments deficit—is a structural weakness, prompting downstreaming policies as a gateway to the transformation of .

Mineral downstreaming has become a key pillar of defensive stability, with investment realisation in 2025 reaching Rp1,931.2 trillion, of which the downstreaming sector contributes 30.2 per cent or Rp584.1 trillion, primarily from nickel (idr185.2 trillion) and copper (Rp65.9 trillion) (Ika, 2017) . The government is preparing 20 new strategic projects worth US\$26 billion by 2026, including six projects to be inaugurated in February 2026, to create 600,000 jobs and shift the paradigm from extractive to integrated industry (Prasetiani et al., 2024) . This policy, optimised through the MIND ID Holding, not only increases domestic added value but also strengthens resilience to global price volatility (Rong, 2022) .

Amidst macroeconomic resilience, structural challenges such as regional disparities and dependence on the primary sector are becoming more prominent, with GDP in the third quarter of 2025 at Rp6,060 trillion at current prices still dominated by consumption and primary exports, while the contribution of manufacturing is low in terms of added value (Central Statistics Agency, 2025b; Bank Indonesia, 2025); the 2026 projection calls for reforms to escape the "middle-income trap" through accelerated upstream processing (Coordinating Ministry for Economic Affairs, 2026c). This transition is crucial given that national bauxite reserves reach 7.4 billion tonnes, which have the potential to become the basis for sustainable industrialisation if processed domestically (Ika, 2017) .

The global context is increasingly urgent for this shift, with the US-China trade war, Europe's green energy transition, and the post-2022 energy crisis disrupting critical mineral supply chains. Indonesia, as the world's largest nickel supplier, has used the ore export ban to force downstreaming, but is now entering a decisive phase in 2026 where the transformation from upstream to downstream must be accelerated to avoid overcapacity (Prasetiani et al., 2024) . Market projections estimate growth of up to 5.23 per cent in the fourth quarter of 2025, opening up space for strategies to synchronise

the state budget with new growth engines (Tempo.co, 2026; Coordinating Ministry for Economic Affairs, 2026c). While upstream processing promises industrialisation, the digital economy is emerging as an inclusive catalyst, with 5G adoption and startups driving the sector's contribution to GDP to 10 per cent by 2025; however, inclusivity still lags behind due to the internet access gap in 3T (frontier, outermost, and disadvantaged) regions, with only a small proportion of women, the elderly, and people with disabilities involved. The 2026 strategy emphasises a shift from "signals to empowerment", integrating digital literacy with infrastructure for MSMEs and cross-border trade (Gomes et al., 2022).

The inclusive digital economy counterbalances upstream dependence, with government-industry collaboration to address four key challenges: regional disparities, access for vulnerable groups, data security, and service relevance (Gomes et al., 2022). By 2026, it is projected to become a Southeast Asian hub through digital tax regulations and consumer protection (Coordinating Ministry for Economic Affairs, 2026c).

The integration of these two pillars—upstream processing and digital inclusion—is the essence of the 2026 structural transformation, in which the state budget is focused on the green economy, digitalisation, and downstreaming for quality growth (Coordinating Ministry for Economic Affairs, 2026c). BPS 2025 data confirms this momentum, with 5.11 per cent growth as the baseline (Central Statistics Agency, 2026a). Labour challenges are prominent, with upskilling required for 600,000 new workers from downstreaming and digitalisation; the dynamics of industrial relations in 2025 show an imbalance in worker protection, requiring structural reform (Prasetiani et al., 2024). Law enforcement and strengthening market institutions are key (Coordinating Ministry for Economic Affairs, 2026c).

Fiscally, the prudence of the 2026 State Budget supports this transition, with a decline in SUN yields below 6 per cent and maintained liquidity; the journey of 2025 proves the State Budget as an anchor of stability (Ministry of Finance, 2026). Trading Economics Projection: 5.39 per cent in Q4 2025 (Zhong et al., 2025).

Thus, this article analyses the shift from defensive stability to acceleration, with Discussion I focusing on downstreaming and Discussion II on digital inclusion, based on the latest empirical data.

Research Method

This study uses a library research method that focuses on searching, analysing, and synthesising information from various scientific sources relevant to the theme of Indonesia's economic structure transformation. Data sources include books, journals, and other documents such as those from the Central Statistics Agency (BPS), Bank Indonesia (BI), and others. Secondary data was analysed qualitatively using a descriptive-analytical approach to identify patterns, policy directions, and theoretical

and empirical implications of industrial downstreaming and inclusive digital economy strengthening policies (Lubbe et al., 2020) ; (Eliyah & Aslan, 2025) .

Results and Discussion

Acceleration of Upstream Processing and National Reindustrialisation

Indonesia's economic conditions prior to 2026 were still dominated by dependence on exports of raw commodities such as nickel, bauxite, and coal, which contributed up to 60 per cent of the trade deficit and were vulnerable to global price fluctuations. with raw nickel exports falling sharply after the 2020 ban, while downstream added value jumped tenfold to USD 33.9 billion in 2025 (Investment Coordinating Board, 2026; Coordinating Ministry for Economic Affairs, 2025). This defensive character is evident in the low manufacturing growth of less than 4 per cent, with the primary sector dominating GDP by up to 14 per cent, forcing the government to shift to accelerating upstream processing to create domestic added value and long-term economic resilience (Sitohang et al., 2025) .

The mineral downstreaming policy is a key milestone, with the National Strategic Downstreaming Project (Probis) targeting Rp3,464.5 trillion in investment in 15 priority commodities, including minerals, oil and gas, marine, and fisheries. by 2025, downstreaming will contribute 30.2 per cent of the total investment of £584.1 trillion, mainly nickel at £185.2 trillion (Investment Coordinating Board, 2026; Zhong et al., 2025). In 2026, 20 new projects worth US\$26 billion are ready to be rolled out, including six that were inaugurated in February, through the coordination of BPI Danantara for value chain integration (Sitohang et al., 2025) .

The main focus of upstream mineral processing includes bauxite-alumina-aluminium in West Kalimantan worth USD 2.8 billion, which will enter the determination phase in 2026 with reserves of 7.4 billion tonnes of potential imports substitution worth up to IDR 100 trillion annually. The MIND ID holding company is optimising upstream-downstream integration for domestic industrial supply (Sokołowska, 2026) . This project will create 10,000 direct jobs and boost supporting industries such as chemicals and metallurgy (Ministry of Energy and Mineral Resources, 2026).

Nickel remains a mainstay with a target ore production of 209 million tonnes in 2026 (below the RKAB target of 260-270 million tonnes), supported by a new HPAL smelter with a capacity of 2.7 million dmt of grade 1-2 ore. imports from the Philippines are projected at 30 million tonnes to meet the surging demand for EV battery exports (IMA-API, 2026c). This policy will increase foreign exchange earnings by USD 40 billion annually and position Indonesia as a global battery hub (Ministry of Industry, 2025).

The extension to energy includes 18 downstream projects worth IDR 618 trillion, including a IDR 160 trillion oil refinery and coal gasification/DME, with 8 mineral and coal projects and 2 internal energy projects; the 2026 operational target is to create 276,000

jobs and reduce energy imports by 20 per cent (Sokołowska, 2026) . President Prabowo prioritises this via Danantara for energy sovereignty (Luthviati et al., 2025) .

Agriculture and livestock are also being downstreamed with 3 agricultural projects and 5 livestock projects in Java-West Kalimantan, focusing on value-added food processing such as milk and meat for self-sufficiency; an investment of Rp50 trillion is driving agro-industry and supporting MBG (Ministry of Industry, 2025). Impact: increase the contribution of agribusiness to GDP by 15 per cent (Republika, 2026). Crucial infrastructure investment, with 1,236 new industrial companies starting production in early 2026, absorbing 218,000 workers, supported by non-oil and gas investment of Rp551.88 trillion; green industrial estates in 15 provinces complete with logistics infrastructure (Luthviati et al., 2025) . Target: logistics efficiency to decrease by 20 per cent via special mineral ports (Investment Coordinating Board, 2026).

Clean energy transition integrates downstreaming with the EV ecosystem, where processed nickel exports increase by 58 per cent yoy in Q3-2025 thanks to new smelters; 2026 target of 2 million tonnes of nickel for domestic batteries. Synergy with IKN accelerates sustainable industrial zones (Ministry of Industry, 2025). Massive labour force impact, with 600,000 new low- s from 20 projects plus 276,000 from 18 Danantara projects; manufacturing sector targets to absorb 14.68 per cent of the national workforce with productivity of IDR 126.2 million/person/year (Sitohang et al., 2025) . Challenges: upskilling via Industry 4.0 vocational training (Ministry of Industry, 2025).

New National Industry Strategy (SBIN) strengthens forward-backward linkages between upstream, manufacturing and services, in line with Prabowo's Asta Cita for food and energy self-sufficiency; prioritises downstreaming, exports and green transformation (Ministry of Industry, 2025). Supports MBG and health via supporting industries (Republika, 2026). Case study on nickel: the surge in exports from USD 3.3 billion to USD 33.9 billion is proof of the success of downstreaming, with new HPAL smelters closing the supply gap; 2026 ore imports of 30 million tonnes optimise capacity. Potential: USD 50 billion in additional foreign exchange (Illahi, 2022) .

Bauxite in West Kalimantan: a USD 2.8 billion alumina-aluminium project in its critical phase in 2026 via MIND ID, reducing aluminium imports by IDR 50 trillion; creating 10,000 jobs and downstream industries. Expansion into Gabon's rare earths strengthens the global chain. Challenges: oversupply of ore and import requirements, addressed by production quota regulations and smelter incentives; industrialisation needs to focus on competent human resources. Optimism: 40 per cent contribution to national investment in 2026 (Luthviati et al., 2025) .

Overall, accelerating upstream processing will drive reindustrialisation, increase manufacturing GDP by 25 per cent and create 1 million jobs in 3 years; the foundation of economic sovereignty via domestic added value.

An Inclusive and Equitable Digital Economy

Indonesia's digital ecosystem in 2026 is projected to be worth USD146 billion (the largest in ASEAN), driven by 73 per cent internet penetration and 200 million smartphone users, with e-commerce, fintech and edtech growing at 20 per cent annually post-pandemic (Meidyasari, 2024) . There are 10 unicorn startups with a valuation of USD 50 billion, supported by AI adoption in the public sector (World Bank, 2025a). However, inclusiveness is key to avoiding the digital divide (World Bank, 2023).

Startup growth is driven by EV-DCI 2025, which recorded progress in 38 provinces, with frontier provinces such as Sulawesi rising in the rankings thanks to investment in infrastructure and education; digital competitiveness drives GDP contribution of 10-12 per cent (Setyowati & Atmanti, 2025). Challenges: regional disparities, Indonesia ranks low compared to ASEAN peers (Abdurrahman, 2025) . The adoption of AI and 5G is accelerating transformation, with e-commerce reaching USD 77 billion in 2022 and USD 146 billion in 2025; platforms such as Gojek-Tokopedia integrate 20 million MSMEs, increasing rural market access (Meidyasari, 2024). The World Bank highlights the momentum of e-government and AI for inclusive public services (World Bank, 2025a).

Digital inclusivity is a priority, with an internet access gap affecting 50 per cent of the adult population; the World Bank identifies infrastructure, quality, and usage gaps limiting potential, particularly in rural areas, schools, and healthcare (World Bank, 2023). The 2026 policy targets universal high-speed access and data centre reform (World Bank, 2025a). Access equity via Palapa Ring phase 3 achieves 80 per cent coverage, but digital literacy is only 35 per cent among women in the tech workforce. The Pre-Employment Card programme digitises 17 million participants to improve ICT skills (Dwipatna et al., 2025) . Focus on 3T regions to reduce the urban-rural divide (Gomes et al., 2022) .

Women's and vulnerable groups' participation increases via fintech inclusion, where 60 million unbanked individuals access QRIS and e-wallets; however, women represent only 35 per cent of tech jobs, requiring gender equity policies (Meidyasari, 2024). Longitudinal study shows infrastructure and skills are key drivers of ICT competence in Eastern Indonesia (Dwipatna et al., 2025) . 2026 regulatory policies include PDP Law to protect personal data, increase trust; 0.5 per cent digital tax to encourage platform formalisation, in line with OECD peer review for inclusion (World Bank, 2025a). Framework barrier identifies 5 obstacles: digital literacy, infrastructure, regulation, financial access, skills (Dwipatna et al., 2025) .

The government's role via digital e-KTP and 100 smart cities, integrating AI for efficient services; the IMF recommends data centre coordination for competitiveness (International Monetary Fund, 2025). Challenges: fragmented regulations hamper investment (World Bank, 2025a). Public-private synergy via the National Movement 1000 Startups and One Data Indonesia accelerates MSME digitalisation; 13 million

MSMEs adopt digital, increasing revenue by 30 per cent (Luthviati et al., 2025). Google-Bain collaboration supports the ecosystem (A'yun et al., 2024).

Digital public services reach 90 per cent e-government index, with telemedicine reaching 50 million rural areas; World Bank praises commitment but recommends digital skills and trust framework (World Bank, 2025a). Edtech closes post-pandemic learning gap (World Bank, 2023). Cross-border trade via RCEP digital boosts MSME exports by USD 20 billion; ASEAN Single Window platform integrates 70 per cent of MSMEs (Kehal & Singh, 2005). Impact: GDP boost of 1-2 per cent via digital trade (Ma et al., 2024).

Opportunities in 2026: Indonesia as an ASEAN digital hub with 300 million potential users; AI and blockchain enhance inclusive supply chains, but require USD 10 billion in infrastructure investment (World Bank, 2025a). Projection: digital contribution of 20 per cent of GDP in 2030 (Setyowati & Atmanti, 2025). Inclusivity challenges: the informal sector accounts for 60 per cent of the economy's digital adoption but is hampered by literacy and infrastructure; policies require training programmes and friendly regulations (Hojeghan & Esfangareh, 2011). The World Bank emphasises digital skills for quality jobs (World Bank, 2025b).

Overall, the inclusive digital economy in 2026 will be a pillar of transformation, creating 15 million quality jobs via platforms and AI; downstream-digital synergy will achieve equitable growth.

Conclusion

The transformation of Indonesia's economic structure in 2026 marks a strategic shift from defensive stability—which successfully maintained GDP growth at around 5 per cent post-pandemic—towards the acceleration of upstream processing and an inclusive digital economy as the two main pillars of economic sovereignty. Downstreaming of minerals such as nickel and bauxite, with an investment of Rp3,464.5 trillion through Probis, will not only increase domestic added value to USD50 billion but also create 600,000 new jobs, while the digital economy, with a contribution of 10-12 per cent of GDP, will promote the inclusiveness of the " " through the digitalisation of 20 million MSMEs and equitable internet access in 3T regions. The integration of these two pillars forms the foundation of sustainable national reindustrialisation, in line with the Prabowo administration's Asta Cita for food self-sufficiency, energy, and equitable welfare.

However, the main challenges ahead include transforming human resources through Industry 4.0 upskilling for 1 million new workers, strengthening data governance via the PDP Law to build digital trust, and ensuring the continuity of state budget policies that are synchronised with the green growth engine. Regional disparities and dependence on mineral ore imports must be addressed through public-private synergies, including collaboration with ASEAN-RCEP for cross-border digital trade, in order to avoid the middle-income trap and achieve the 8 per cent growth

target. These structural reforms are crucial for converting temporary stability into permanent global competitiveness.

By 2030, Indonesia's Golden Age vision will be realised through a resilient economy based on domestic added value and digital inclusion, where downstreaming contributes 40 per cent of national investment while the digital economy accounts for 20 per cent of GDP with 15 million quality jobs. This integrated policy not only strengthens geopolitical resilience amid the global energy transition, but also ensures that the economic dividends are felt by all levels of society, making Indonesia a sovereign ASEAN industrialisation and digital hub.

References

- Abdurrahman, A. (2025). Extending the IBCDE framework to explore barriers and drivers in Indonesia's digital economy. *Journal of Digital Economy*, 4, 123–143. <https://doi.org/10.1016/j.jdec.2025.08.003>
- A'yun, I. Q., Anggraini, L., Asmara, G. D., & Khoirunnisa, R. M. (2024). Analysis of the Development of E-Commerce Transactions in the 6 Highest Transaction Countries in Southeast Asia. *Journal of Economics Research and Social Sciences*, 8(2), 207–221. <https://doi.org/10.18196/jerss.v8i2.22033>
- Dwipatna, I. M. J. A., Darwin, D., Andriani, S., Nugraha, P. A. D., & Wahyuningsih, A. N. (2025). Digital economy development in Eastern Indonesia: The infrastructure and socio-economic dimensions. *Priviet Social Sciences Journal*, 5(12), 32–44. <https://doi.org/10.55942/pssj.v5i12.1040>
- Eliyah, E., & Aslan, A. (2025). STAKE'S EVALUATION MODEL: METODE PENELITIAN. *Prosiding Seminar Nasional Indonesia*, 3(2), Article 2.
- Gomes, S., Lopes, J. M., & Ferreira, L. (2022). The impact of the digital economy on economic growth: The case of OECD countries. *RAM. Revista de Administração Mackenzie*, 23, eRAMD220029. <https://doi.org/https://doi.org/10.1590/1678-6971/eRAMD220029.en>
- Hojeghan, S. B., & Esfangareh, A. N. (2011). Digital economy and tourism impacts, influences and challenges. *Procedia - Social and Behavioral Sciences, The 2nd International Geography Symposium-Mediterranean Environment 2010*, 19, 308–316. <https://doi.org/10.1016/j.sbspro.2011.05.136>
- Ika, S. (2017). Kebijakan Hilirisasi Mineral: Policy Reform untuk Meningkatkan Penerimaan Negara. *Kajian Ekonomi Dan Keuangan*, 1(1), 42–67. <https://doi.org/10.31685/kek.v1i1.259>
- Illahi, A. R. (2022). HILIRISASI PERTAMBANGAN DAN DAMPAKNYA TERHADAP ASPEK EKONOMIS LINGKUNGAN HIDUP DI INDONESIA. *Jurnal Justitia: Jurnal Ilmu Hukum Dan Humaniora*, 9(3), 1436–1444. <https://doi.org/10.31604/justitia.v9i3.1436-1444>
- Kehal, H. S., & Singh, V. P. (2005). *Digital Economy: Impacts, Influences, and Challenges*. Idea Group Inc (IGI).
- Lubbe, W., Ham-Baloyi, W. ten, & Smit, K. (2020). The integrative literature review as a research method: A demonstration review of research on neurodevelopmental

- supportive care in preterm infants. *Journal of Neonatal Nursing*, 26(6), 308–315. <https://doi.org/10.1016/j.jnn.2020.04.006>
- Luthviati, R. D., Putro, N. W. P., & Anggrahini, D. S. (2025). Why Sustainable Development Fails Without Ethical Public Governance Policies? *Contrarius*, 1(3), 232–244. <https://doi.org/10.53955/contrarius.v1i3.216>
- Ma, X., Feng, X., Fu, D., Tong, J., & Ji, M. (2024). How does the digital economy impact sustainable development? —An empirical study from China. *Journal of Cleaner Production*, 434, 140079. <https://doi.org/10.1016/j.jclepro.2023.140079>
- Meidyasari, S. (2024). The Impact of Digital Economy in Driving Economic Growth and Development in Indonesia. *Interdisciplinary Journal and Hummanity (INJURITY)*, 3(11), 777–783. <https://doi.org/10.58631/injury.v3i11.1306>
- Prasetiani, D. N., Anindya, H. F., & Yoshe, A. S. (2024). Strategi Menghadapi Middle Income Trap: Dampak Hilirisasi Mineral terhadap Pendapatan Negara Indonesia Era Joko Widodo. *Indonesia Foreign Policy Review*, 11(1). <https://doi.org/10.5281/zenodo.14562414>
- Rong, K. (2022). Research agenda for the digital economy. *Journal of Digital Economy*, 1(1), 20–31. <https://doi.org/10.1016/j.jdec.2022.08.004>
- Setyowati, E. P., & Atmanti, H. D. (2025). Economic and Technological Determinants of Transportation Sector Performance in Indonesia: A Panel Data Approach (2020–2024). *Finance: International Journal of Management Finance*, 2(4), 84–89. <https://doi.org/10.62017/finance.v2i4.88>
- Sitohang, C., Azis, H., & Hafiz, M. S. (2025). Hilirisasi Komoditi Mineral: Studi Kasus Nikel di Indonesia. *JURNAL ILMIAH EKONOMI DAN MANAJEMEN*, 3(2), 1–12. <https://doi.org/10.61722/jiem.v3i2.3755>
- Sokołowska, E. (2026). Introduction to the Digital Economy. In *Inclusion and Innovation in the Digital Economy*. Routledge.
- Zhong, W., Wang, J., & Yang, Y. (2025). HETEROGENEOUS MULTI-SOURCE DATA INTEGRATION BASED ON THE MECHANISMS OF DATA FACTORIZATION AND MARKETIZATION. *Journal of Digital Economy*. <https://doi.org/10.1016/j.jdec.2025.11.002>
- Abdurrahman, A. (2025). Extending the IBCDE framework to explore barriers and drivers in Indonesia's digital economy. *Journal of Digital Economy*, 4, 123–143. <https://doi.org/10.1016/j.jdec.2025.08.003>
- A'yun, I. Q., Anggraini, L., Asmara, G. D., & Khoirunnisa, R. M. (2024). Analysis of the Development of E-Commerce Transactions in the 6 Highest Transaction Countries in Southeast Asia. *Journal of Economics Research and Social Sciences*, 8(2), 207–221. <https://doi.org/10.18196/jerss.v8i2.22033>
- Dwipatna, I. M. J. A., Darwin, D., Andriani, S., Nugraha, P. A. D., & Wahyuningsih, A. N. (2025). Digital economy development in Eastern Indonesia: The infrastructure and socio-economic dimensions. *Priviet Social Sciences Journal*, 5(12), 32–44. <https://doi.org/10.55942/pssj.v5i12.1040>
- Eliyah, E., & Aslan, A. (2025). STAKE'S EVALUATION MODEL: METODE PENELITIAN. *Prosiding Seminar Nasional Indonesia*, 3(2), Article 2.

- Gomes, S., Lopes, J. M., & Ferreira, L. (2022). The impact of the digital economy on economic growth: The case of OECD countries. *RAM. Revista de Administração Mackenzie*, 23, eRAMD220029. <https://doi.org/https://doi.org/10.1590/1678-6971/eRAMD220029.en>
- Hojeghan, S. B., & Esfangareh, A. N. (2011). Digital economy and tourism impacts, influences and challenges. *Procedia - Social and Behavioral Sciences, The 2nd International Geography Symposium-Mediterranean Environment 2010*, 19, 308–316. <https://doi.org/10.1016/j.sbspro.2011.05.136>
- Ika, S. (2017). Kebijakan Hilirisasi Mineral: Policy Reform untuk Meningkatkan Penerimaan Negara. *Kajian Ekonomi Dan Keuangan*, 1(1), 42–67. <https://doi.org/10.31685/kek.v1i1.259>
- Illahi, A. R. (2022). HILIRISASI PERTAMBANGAN DAN DAMPAKNYA TERHADAP ASPEK EKONOMIS LINGKUNGAN HIDUP DI INDONESIA. *Jurnal Justitia: Jurnal Ilmu Hukum Dan Humaniora*, 9(3), 1436–1444. <https://doi.org/10.31604/justitia.v9i3.1436-1444>
- Kehal, H. S., & Singh, V. P. (2005). *Digital Economy: Impacts, Influences, and Challenges*. Idea Group Inc (IGI).
- Lubbe, W., Ham-Baloyi, W. ten, & Smit, K. (2020). The integrative literature review as a research method: A demonstration review of research on neurodevelopmental supportive care in preterm infants. *Journal of Neonatal Nursing*, 26(6), 308–315. <https://doi.org/10.1016/j.jnn.2020.04.006>
- Luthviati, R. D., Putro, N. W. P., & Anggrahini, D. S. (2025). Why Sustainable Development Fails Without Ethical Public Governance Policies? *Contrarius*, 1(3), 232–244. <https://doi.org/10.53955/contrarius.v1i3.216>
- Ma, X., Feng, X., Fu, D., Tong, J., & Ji, M. (2024). How does the digital economy impact sustainable development? —An empirical study from China. *Journal of Cleaner Production*, 434, 140079. <https://doi.org/10.1016/j.jclepro.2023.140079>
- Meidyasari, S. (2024). The Impact of Digital Economy in Driving Economic Growth and Development in Indonesia. *Interdisciplinary Journal and Hummanity (INJURITY)*, 3(11), 777–783. <https://doi.org/10.58631/injury.v3i11.1306>
- Prasetyani, D. N., Anindya, H. F., & Yoshe, A. S. (2024). Strategi Menghadapi Middle Income Trap: Dampak Hilirisasi Mineral terhadap Pendapatan Negara Indonesia Era Joko Widodo. *Indonesia Foreign Policy Review*, 11(1). <https://doi.org/10.5281/zenodo.14562414>
- Rong, K. (2022). Research agenda for the digital economy. *Journal of Digital Economy*, 1(1), 20–31. <https://doi.org/10.1016/j.jdec.2022.08.004>
- Setyowati, E. P., & Atmanti, H. D. (2025). Economic and Technological Determinants of Transportation Sector Performance in Indonesia: A Panel Data Approach (2020–2024). *Finance: International Journal of Management Finance*, 2(4), 84–89. <https://doi.org/10.62017/finance.v2i4.88>
- Sitohang, C., Azis, H., & Hafiz, M. S. (2025). Hilirisasi Komoditi Mineral: Studi Kasus Nikel di Indonesia. *JURNAL ILMIAH EKONOMI DAN MANAJEMEN*, 3(2), 1–12. <https://doi.org/10.61722/jiem.v3i2.3755>
- Sokołowska, E. (2026). Introduction to the Digital Economy. In *Inclusion and Innovation in the Digital Economy*. Routledge.

Zhong, W., Wang, J., & Yang, Y. (2025). HETEROGENEOUS MULTI-SOURCE DATA INTEGRATION BASED ON THE MECHANISMS OF DATA FACTORIZATION AND MARKETIZATION. *Journal of Digital Economy*.
<https://doi.org/10.1016/j.jdec.2025.11.002>

Badan Koordinasi Penanaman Modal. (2026). *Probis hilirisasi kejar target investasi Rp3.464,5 T*.

Badan Pusat Statistik. (2025, August 5). *Ekonomi Indonesia triwulan II-2025 tumbuh 4,04 persen (q-to-q); 5,12 persen (y-on-y)*.

Badan Pusat Statistik. (2025, November 5). *Ekonomi Indonesia triwulan III-2025 tumbuh 5,04 persen (y-on-y)*.

Badan Pusat Statistik. (2026, February 5). *Ekonomi Indonesia tahun 2025 tumbuh 5,11 persen*.

Bank Indonesia. (2025, November 5). *Ekonomi Indonesia triwulan III 2025 tumbuh 5,04%*.

World Bank. (2023). *Beyond unicorns: Harnessing digital technologies for inclusion in Indonesia*.

World Bank. (2025a). *Indonesia Economic Prospects: Digital reforms*.

Kementerian Koordinator Bidang Perekonomian. (2026, February 21). *Perekonomian Indonesia tetap tangguh, tumbuh 5,04% di triwulan III-2025*.

Kementerian Koordinator Bidang Perekonomian. (2026, February 23). *Perekonomian Indonesia 2025 tetap tangguh, stabilitas makro terjaga dan kualitas pertumbuhan meningkat*.

Kementerian Koordinator Bidang Perekonomian. (2026, February 23). *Strategi ekonomi 2026: Sinkronisasi APBN dan mesin pertumbuhan baru untuk perkuat fondasi pertumbuhan nasional*.