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INTEGRATION OF THE DIGITAL ECONOMY INTO THE NATIONAL LONG TERM DEVELOPMENT PLAN

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ABSTRACT: The implementation of digitalization within the framework of Indonesia's national development faces significant challenges and opportunities. One of the main obstacles is the imbalance in access and connectivity between regions, especially in 3T (underdeveloped, frontier, and outermost) areas, which requires cross-sector coordination and long-term investment for equitable digital infrastructure. In addition, the low level of digital literacy among the public and small and medium-sized enterprises (SMEs) is an obstacle to promoting widespread and inclusive technology adoption. In vision, which targets per capita income of USD 23,000–30,300 and a 18% contribution of the digital sector to GDP by 2030. Digitization is expected to improve the efficiency of public services, strengthen data-based governance, and reduce poverty levels by 0.5–0.8 percent and reduce income inequality at all levels of education is a priority in order to create a generation that is able to compete in the digital economy era.

Keywords: *Digital economy, digital infrastructure, economic development*

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INTRODUCTION

The development of digital technology has become a transformative force in the global economy. Digitalization has changed the way humans interact, produce, and transact, as well as creating new business models that are more efficient and inclusive. Amidst the tide of the 4.0 industrial revolution and society 5.0, the digital economy has become a key pillar in driving sustainable and highly competitive economic growth. Indonesia, as the fourth most populous country in the world and the largest economy in Southeast Asia, has enormous potential to leverage the digital economy as an engine of national development (Aini & Ardiani, 2020).

In this context, the 2025–2045 National Long-Term Development Plan (RPJPN) establishes the digital economy as one of the strategic foundations for realizing Indonesia Emas 2045. The grand vision of the RPJPN is to make Indonesia a developed country that is sovereign, sustainable, and influential at the global level. To achieve this vision, economic transformation through digitalization is a necessity, not an option. The integration of the digital economy in the RPJPN reflects the government's awareness of the importance of adapting to technological changes and economic globalization (Suhendra et al., 2025).

The digital economy encompasses various digitized sectors, such as e-commerce, digital financial services (fintech), technology-based creative industries, and the utilization of big data, artificial intelligence (AI), and the Internet of Things (IoT). According to a report by the Coordinating Ministry for Economic Affairs, the contribution of the digital economy to Indonesia's Gross Domestic Product (GDP) is projected to reach 18% by 2030, with the value of digital economy transactions continuing to increase every year. This shows that the digital economy is not just a trend, but has become an integral part of the national economic structure (Santoso, 2024). However, the integration of the digital economy into the RPJPN does not only concern technological and economic aspects, but also touches on social, institutional, and governance dimensions (Mocanu & Szakal, 2024). Challenges such as the digital divide between regions, low digital literacy among the public, limited digital infrastructure in disadvantaged areas, as well as issues of cyber security and personal data protection are major concerns in the formulation of long-term development policies. Therefore, the RPJPN emphasizes the importance of equitable digital infrastructure development, strengthening adaptive regulations, and increasing human resource capacity through digital education and training (Lemhannas et al., 2024).

In facing an increasingly complex and dynamic digital era, Indonesia is required to undergo structural transformation in various development sectors. One of the strategic steps taken by the government is to integrate the digital economy into the 2025-2045 National Long-Term Development Plan (RPJPN)

(Narmanov, 2022). This integration is not merely a response to global technological developments, but a systematic effort to transform the national economic structure to be more adaptive, inclusive, and highly competitive.

This study aims to provide a comprehensive understanding of the digital economy integration strategy in the 2025–2045 National Medium-Term Development Plan (RPJPN). This study will examine in depth the policy directions outlined in national planning documents and assess the readiness of Indonesia's digital ecosystem to support this transformation. In addition, this study also aims to identify the challenges and opportunities faced, as well as evaluate the potential impact of digital economic integration on overall national development.

The integration of the digital economy into the 2025–2045 National Long-Term Development Plan (RPJPN) is a strategic step that is not only oriented towards the utilization of technology but also reflects a structural transformation in the direction of national development. To gain a deeper understanding of how the digital economy is integrated into the RPJPN, this theoretical study refers to several relevant conceptual frameworks, namely digital economy theory, economic development theory, public policy theory, and technological innovation theory (Sirait & Pohan, 2022).

Conceptually, the digital economy refers to economic activities based on information and communication technology, including e-commerce, fintech, big data, artificial intelligence (AI), and the Internet of Things (IoT). (Qiu et al., 2024) refers to the digital economy as a new form of economy characterized by the use of digital networks as the main medium for the production, distribution, and consumption of goods and services. In the context of the RPJPN, the digital economy is positioned as a key driver of economic growth, capable of increasing efficiency, expanding market access, and encouraging cross-sector innovation. Classical economic development theories, as proposed by (Chen, n.d.), provide an important foundation for understanding systematic and sustainable development stages. The RPJPN, as a strategic document for the next 20 years, adopts this approach by establishing a structured vision and mission for development. In Rostow's model, digital economic integration can be linked to the take-off and drive to maturity stages, where technology and innovation are the main drivers of growth. Meanwhile, Todaro's approach emphasizes the importance of inclusive and equitable development, which is in line with the RPJPN's goal of expanding digital access and reducing regional disparities.

In the public policy framework, the theory proposed by (Goggin et al., 1984) states that public policy is a series of actions designed to achieve specific objectives through a rational and participatory process. The integration of the digital economy in the RPJPN reflects a policy integration approach, which is the incorporation of cross-sectoral issues into a holistic policy framework. This

includes the development of digital infrastructure, regulatory reform, increased digital literacy, and the strengthening of the innovation ecosystem. This theory also emphasizes the importance of stakeholder involvement in the planning process, which is reflected in the RPJPN through collaboration between the government, the private sector, academics, and the community.

The main objective of this research is to provide a comprehensive understanding of how the digital economy is integrated into Indonesia's long-term development strategy. Specifically, the study aims to analyze the policy framework, identify the key components of digital economy implementation, and examine the challenges and opportunities that emerge from this integration. By doing so, the research seeks to contribute to both academic knowledge and practical insights that can inform policymakers, industry stakeholders, and the wider community on how to optimize the benefits of digital transformation for sustainable and inclusive development.

In conclusion, this study demonstrates that the integration of the digital economy into the RPJPN is not merely a technological agenda, but a multidimensional strategy that combines infrastructure development, human resource capacity building, regulatory reform, and stakeholder engagement. Its successful implementation depends on cross-sector collaboration, effective governance, and continuous monitoring to ensure that the envisioned economic growth, social equity, and technological innovation are achieved. This research highlights the importance of adopting a holistic approach in policy design and offers a foundation for further studies on the long-term impact of digitalization on national development in Indonesia.

METHOD

This study employs a descriptive qualitative approach, aimed at obtaining an in-depth understanding of the process of integrating the digital economy into the 2025–2045 National Long-Term Development Plan (RPJPN). This approach was selected because the primary focus of the research is to explore the meaning, policy direction, and dynamics of digital economy implementation within the context of national development, aspects that cannot be fully captured through quantitative methods alone. By using a qualitative approach, the study allows for a more nuanced examination of how digital strategies are formulated, implemented, and interpreted by various stakeholders, providing insights into both the intentions behind policy decisions and the practical implications of those decisions on society and the economy (Sugiyono, 2021).

As a policy-focused study, the research involves the systematic examination of strategic government documents, including Law No. 59 of 2024 concerning the RPJPN, the White Paper on the 2030 Indonesian National Digital Economy Development Strategy, as well as reports and publications from the Ministry of Communication and Information Technology, Bappenas, and other

relevant institutions. These documents were analyzed to identify how the digital economy is conceptualized and integrated as part of Indonesia's long-term development strategy, with attention to specific policy goals, implementation frameworks, and success indicators. To complement the document study, the research also incorporated primary data through semi-structured interviews with key informants, including national development planners, academics specializing in digital economy, and representatives from the technology industry. These interviews provided practical insights into the perspectives and experiences of stakeholders directly involved in shaping and executing digital policies.

The data analysis in this study was conducted using content analysis and thematic analysis techniques, which allowed for the identification of patterns and recurring themes within both documents and interview data. Themes such as policy direction, implementation challenges, infrastructure readiness, and the socio-economic impact of digital economy integration were systematically categorized and analyzed iteratively to ensure depth, accuracy, and contextual relevance (Rukminingsih, 2020). To maintain the validity and reliability of the findings, source and method triangulation techniques were applied, comparing data from multiple sources and collection methods. Overall, this methodology provides a comprehensive and reflective understanding of the integration of the digital economy into the RPJPN, allowing the researchers not only to describe phenomena, but also to interpret the underlying meaning, implications, and potential outcomes of policies within the framework of Indonesia's development trajectory toward 2045.

RESULTS

The results of the study indicate that the integration of the digital economy into the 2025–2045 National Long-Term Development Plan (RPJPN) has been formulated as a comprehensive and future-oriented transformative strategy. The Indonesian government has explicitly identified the digital economy as one of the central pillars for achieving the Indonesia Emas 2045 vision, which seeks to transform Indonesia into a developed, sovereign, sustainable, and globally influential nation. This strategic positioning reflects a recognition of the pivotal role that digital technologies play in driving economic growth, enhancing productivity, and fostering innovation across various sectors. By prioritizing digital development, the government aims not only to strengthen economic competitiveness but also to promote social inclusivity and equitable access to technological advancements across all regions of the country (Suhendra et al., 2025).

Furthermore, this strategy encompasses a multi-dimensional approach that goes beyond technology alone, integrating aspects of human resource development, institutional capacity building, and governance reform. The

RPJPN outlines clear targets for expanding digital infrastructure, fostering a skilled digital workforce, and enhancing public service delivery through digitalization. By doing so, the government seeks to create a robust ecosystem in which innovation and entrepreneurship can thrive, contributing to a resilient and adaptable economy. The emphasis on digital transformation also reflects a long-term vision to reduce regional disparities, bridge the digital divide, and ensure that the benefits of economic modernization are experienced by all segments of society, laying a strong foundation for Indonesia's sustainable growth and global competitiveness.

Here is a table that provides a comprehensive overview of the main focus areas of digital economy integration based on the RPJPN and RPJMN:

Table 1. Summary of Digital Economy Integration RPJPN 2025–2045

Main Focus	Targets / Strategies 2025–2045	Notes / Status	Source
Digital Infrastructure	<ul style="list-style-type: none"> - High-speed internet networks across all regions, including 3T areas (underdeveloped, frontier, outermost) - National & regional data centers - Equitable digital services across sectors 	Planning & initial implementation phase	RPJPN 2025–2045, RPJMN 2025–2029 (Bappenas, 2024)
Human Resource Development	<ul style="list-style-type: none"> - Integration of digital curriculum in all education levels - Technology training centers & certification programs - Collaboration with the private sector to develop talent 	Targets: 500,000 training participants, 300,000 workforce-ready talent	RPJPN 2025–2045, Ministry of Communication & Informatics 2024
Digital Public Services	<ul style="list-style-type: none"> - Electronic medical records & digital health systems - National online learning systems - e-KTP & online 	Priority on transparency, efficiency, and nationwide access	RPJPN 2025–2045, Ministry of State Apparatus 2024

	population administration - Online OSS & taxation systems		
Economic Contribution	- Increase digital sector contribution to GDP: 6% (2025) → 15% (2045) - Strengthening innovation ecosystem & digital startups	Data based on RPJPN/RPJMN, strategic target	Bappenas 2024, Coordinating Ministry for Economic Affairs 2024
Socio-Economic Impact	- Poverty reduction: 0.5–0.8% - Gini ratio: 0.29–0.32 - Per capita income: USD 23,000–30,300 - Internet access: 95% of population	Projected economic & social impacts based on digitalization strategy	RPJPN 2025–2045, BPS 2024

Sources: Ministry of State Apparatus Utilization and Bureaucratic Reform (KemenPAN-RB). (2024). Digitalization of Public Services in Indonesia. Jakarta: KemenPAN-RB.

Based on the table, several key focuses of digital economy integration can be identified:

1. Digital Infrastructure: Development of high-speed internet networks, national data centers, and equitable digital services across all regions, especially in Eastern Indonesia and 3T areas (underdeveloped, frontier, outermost). These efforts form the foundation to reduce the digital divide and ensure access to digital services for all communities.
2. Human Resource Development: Focus on digital skills training, vocational education, and the establishment of technology training centers in collaboration with the private sector. Integrating digital curricula across all levels of education is also a priority to prepare a generation ready to face the challenges of the digital economy.
3. Digital Public Services: Transforming government services into digital-based systems aims to improve transparency, bureaucratic efficiency, and service quality. Digitalization covers health, education, population administration, licensing, and taxation services.

4. Economic Contribution to GDP: The digital sector is expected to increase its contribution from 6% in 2025 to 15% in 2045, driven by the strengthening of innovation ecosystems and digital entrepreneurship. This highlights the sector's role as a key driver of national economic growth.
5. Socio-Economic Impact: Digitalization is expected to reduce poverty by 0.5–0.8% and decrease income inequality with a Gini ratio of 0.29–0.32. Additionally, it is projected to increase per capita income and provide internet access to almost the entire population of Indonesia.

Overall, the study emphasizes that the integration of the digital economy serves as a strategic pillar of national development. Although the main narrative of the research does not include complete quantitative data, the attachment table provides a comprehensive summary of targets, strategies, and projected impacts of implementing the digital economy in Indonesia.

Effective implementation of the digital economy will require cross-sector collaboration, regulatory strengthening, and continuous monitoring to ensure the RPJPN 2025–2045 targets are achieved. This study offers an initial overview of Indonesia's strategic direction in digital development while highlighting the need for further research with empirical data to support policy formulation and evaluation.

DISCUSSION

The integration of the digital economy into the 2025–2045 National Long-Term Development Plan (RPJPN) represents a strategic shift in Indonesia's development paradigm, moving from a natural resource-based economy toward a knowledge and technology-based economy. This transformation positions the digital economy as a key driver of national development, emphasizing the need for efficiency, innovation, and inclusivity across multiple sectors. By prioritizing digitalization, the government aims to strengthen economic competitiveness, foster innovation, and ensure equitable access to development benefits, supporting the broader vision of *Indonesia Emas 2045*.

Conceptually, the RPJPN frames the digital economy as an instrument of structural transformation that spans industry, education, government, and public services. Digitalization is envisioned not merely as a technological upgrade, but as a foundation for sustainable and inclusive growth. This aligns with Schumpeter's theory of innovation (Wang et al., 2022) which posits that technological innovation is the primary engine of social and economic change. By introducing new technologies, processes, and business models, economies can stimulate productivity and generate new sources of wealth while fostering transformative social dynamics.

In addition, the integration strategy resonates with Rogers' Diffusion of Innovations theory (Lemhannas et al., 2024) which emphasizes how innovations spread across societies and the factors influencing adoption. From this

perspective, digital infrastructure alone is insufficient; adoption depends on societal readiness, individual capabilities, and supportive institutional frameworks. The RPJPN's focus on human resource development, digital literacy programs, and training initiatives directly addresses these factors, promoting widespread technology adoption and creating conditions for a self-reinforcing innovation ecosystem.

Furthermore, the RPJPN approach reflects principles from Porter's Competitive Advantage theory (Harahap & Tambunan, 2022), highlighting the role of innovation and technology in building national competitiveness. By investing in digital infrastructure, encouraging entrepreneurship, and creating an enabling regulatory environment, Indonesia seeks to position itself strategically in the global digital economy. This theory underscores the importance of integrating multiple dimensions—education, infrastructure, regulation, and market mechanisms—to achieve sustained competitive advantage.

The RPJPN document identifies four key components of the digital economy integration strategy: digital infrastructure development, strengthening the innovation ecosystem, regulatory reform, and increasing human resource capacity. High-speed internet expansion, national data center development, and public service digitization are prioritized to ensure that digital transformation is both a technological and social agenda, promoting equity and inclusion.

Despite these efforts, the strategy faces significant challenges. The digital divide between regions remains a major obstacle, particularly in 3T (underdeveloped, frontier, and outermost) areas. Implementing equitable access requires extensive cross-sector coordination and long-term investment. Furthermore, low digital literacy among the general public and SMEs hinders the widespread adoption of technology, highlighting the need for complementary education and training programs.

From a governance perspective, the RPJPN integrates digital transformation with bureaucratic reform and e-governance principles. The digitization of the national data system, the development of digital identities, and the use of big data for planning exemplify a move toward data-driven governance. Such measures enhance transparency, efficiency, and public participation, ensuring that the benefits of digitalization extend to both governmental processes and citizen services.

Economically, the RPJPN projects that Indonesia's per capita income will reach USD 23,000–30,300 by 2045, with the digital sector playing an increasingly dominant role. Digitalization is also expected to reduce poverty by 0.5–0.8 percent and lower income inequality, with a Gini ratio of 0.29–0.32. Overall, the integration of the digital economy into the RPJPN represents a cross-sectoral, multidimensional, and long-term strategy, whose success hinges on coordinated efforts among government, private sector, academia, and civil society. By combining policy, infrastructure, education, and community participation, Indonesia aims to create a resilient and inclusive digital economy that drives sustainable national development.

CONCLUSION

The sharia-based economy in Indonesia faces significant challenges and opportunities in the modern era. The main challenges include low public literacy about sharia principles, limited regulations that are not yet fully harmonized, a lack of innovation in financial products, and fierce competition with the established conventional system. The quality of human resources in the sharia sector is also an obstacle that must be overcome.

However, behind these challenges lie great opportunities for the development of the sharia economy. The rapid growth of the halal industry, regulatory support from the government, and advances in digitalization and sharia fintech pave the way for broader financial inclusion. The potential of the global Muslim market also provides a unique appeal for sharia financial products.

Optimizing the potential of the sharia economy requires synergy between strong regulations, technological innovation, increased public literacy, and strengthened human resources. With the right strategy, the sharia economy can serve as a driving force for sustainable development and become a competitive alternative at the global level.

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