

OPTIMIZING SHARIA INVESTMENT POLICY BASED ON FINANCIAL TECHNOLOGY (FINTECH) TO SUPPORT AN INCLUSIVE DIGITAL ECONOMY

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Abstract

The development of sharia-compliant financial technology (fintech) has emerged as a key driver of financial inclusion in Indonesia, yet low sharia financial literacy and digital infrastructure disparities hinder its potential to foster an inclusive digital economy. This study aims to formulate strategies for optimizing sharia investment policies based on fintech to enhance access to sharia-compliant financial services and support a just digital economy. Employing a library research method with a content analysis approach, this study examines literature from Scopus-indexed journals, OJK reports, and DSN-MUI fatwas to identify patterns, trends, and policy gaps. The findings reveal that sharia fintech expands financial access through platforms such as peer-to-peer lending and digital payments, with sharia financing reaching IDR 585.46 trillion in 2023, predominantly through musyarakah and murabahah contracts. However, challenges such as a sharia financial literacy rate of only 12.1%, uneven digital infrastructure, and insufficiently adaptive regulations limit inclusivity. The study concludes that data-driven, integrated policies and cross-sectoral collaboration are essential to overcome these barriers. Recommendations include strengthening adaptive regulations by OJK, enhancing digital literacy through community-based campaigns, and developing digital infrastructure in remote areas to ensure the benefits of the digital economy are equitably distributed.

Keywords: *Sharia fintech, financial inclusion, digital economy, sharia investment policy, financial literacy.*

Introduction

The advancement of financial technology (fintech) has significantly transformed the global economic landscape, including in Indonesia, by promoting greater access to inclusive financial services. Fintech now plays a pivotal role in reshaping the structure of global financial markets. Based on a scenariobased approach, three potential trajectories for fintech development are identified: the dominance of traditional financial institutions, the emergence of a segmented market driven by new financial technology innovators, and the leadership of digital-based financial companies. Globally, fintech has disrupted conventional financial service paradigms, with its rapid adoption driven by its ability to reach underserved populations previously excluded from traditional financial systems. Unsurprisingly, global investment in the fintech sector continues to rise in tandem with the acceleration of digital transformation.(Putranto et al., 2025). This phenomenon reflects the high adoption of digital technologies among communities, including in sharia-based investments. However, the low level of sharia financial literacy, at only 12.1% according to the National Financial Literacy Survey (SNLIK), poses a significant challenge to maximizing the potential of sharia-based fintech investments.(SNLIK, 2024). This social reality highlights a gap between technological potential and its utilization in supporting an inclusive digital economy. Many communities, particularly in rural areas, remain unserved by sharia fintech due to limited digital infrastructure and insufficiently supportive regulations.(Qur'anisa et al., 2024). herefore, optimizing sharia investment policies based on fintech is critical to ensuring that the benefits of the digital economy are equitably distributed across all societal segments.

Previous studies have explored various aspects of Sharia-compliant financial technology (fintech) and financial inclusion; however, gaps remain in supporting an inclusive digital economy. First, research by Hasan et al, in the *International Journal of Islamic Economics and Finance (IJIEF)* examines the global adoption of sharia fintech, highlighting trust and ease of use as primary drivers, but it does not address the specific role of government policies in enhancing adoption in developing countries like Indonesia.(Hasan et al., 2020). Second, a study by Muzdalifa et al, in *Jurnal Masharif Al-Syariah: Jurnal Ekonomi dan Perbankan Syariah* analyzes fintech's impact on financial inclusion for micro, small, and medium enterprises (MSMEs) in Indonesia, but its focus is

primarily operational, lacking deep integration of sharia principles or a policy framework.(Muzdalifa et al., 2018). Third, Hudaefi et al, in *Qualitative Research in Financial Markets* evaluates the sharia fintech ecosystem in Indonesia, yet it fails to propose integrated policy strategies to support sharia investments within the digital economy context.(Hudaefi et al., 2023) These studies indicate that, despite sharia fintech's significant potential to enhance financial inclusion, no research has comprehensively integrated the optimization of sharia investment policies based on fintech to foster an inclusive digital economy in Indonesia. This gap forms the basis for the present study to address these shortcomings.

This research aims to formulate strategies for optimizing sharia investment policies based on financial technology to support an inclusive digital economy in Indonesia. Specifically, it analyzes factors influencing the effectiveness of sharia investment policies, evaluates fintech's role in enhancing access to sharia-compliant financial services, and proposes an integrated policy framework aligned with sharia principles and digital technology. This approach is expected to provide practical solutions for regulators, such as the Financial Services Authority (OJK) and the National Sharia Board (DSN-MUI), in designing policies that promote financial inclusion. Additionally, the study seeks to offer guidance for sharia fintech industry players in developing products tailored to societal needs. By integrating technology, regulation, and sharia principles, this research aims to contribute to the development of a more inclusive and sustainable digital economic ecosystem.

The optimization of sharia investment policies based on fintech holds high urgency in the current digital economy context. The primary argument of this study is that without integrated and supportive policies, the potential of sharia fintech to drive financial inclusion will be hindered by challenges such as low financial literacy, unequal access to technology, and non-adaptive regulations. Sharia fintech not only offers financial solutions compliant with Islamic principles but also serves as a catalyst for empowering marginalized communities economically. By leveraging technologies such as blockchain and peer-to-peer lending platforms, sharia investments can reach a broader audience at lower costs. However, success depends on policies that align the interests of regulators, industry players, and society. This study argues that a data-driven approach and cross-sectoral collaboration can yield policies that are not only effective but also

inclusive, thereby supporting Indonesia's vision of a just digital economy.

Research Methodology

This study employs a library research method to analyze the optimization of sharia investment policies based on financial technology (fintech) to support an inclusive digital economy. The library research approach was selected due to its ability to facilitate comprehensive data collection from diverse, relevant literature sources, including academic journals, official reports, books, and policy documents. Data collection involved identifying primary and secondary sources related to sharia investment, fintech, and the digital economy. Primary sources include regulations from the Financial Services Authority (OJK) and fatwas from the National Sharia Board-Indonesian Ulema Council (DSN-MUI), while secondary sources encompass Scopus-indexed journal articles, industry reports, and case studies on sharia fintech adoption in Indonesia and other countries. The study also utilized digital databases such as Scopus, Google Scholar, and the Sinta repository to ensure the academic credibility of the literature. Collected data were analyzed qualitatively to identify patterns, trends, and gaps in sharia investment policies based on fintech. This approach enabled the formulation of evidence-based policy recommendations. The process was conducted systematically through stages of collection, selection, analysis, and synthesis of literature.

This study employs a qualitative approach, utilizing content analysis, to examine data related to the optimization of Sharia investment policies based on financial technology (fintech). Content analysis was conducted to map findings from the literature across three key aspects: (1) the framework of sharia investment policies, (2) the role of fintech in financial inclusion, and (3) challenges in implementing an inclusive digital economy. Each collected document was categorized based on its relevance to the research objectives and analyzed to identify main themes and inter-variable relationships. To facilitate the analysis, a literature categorization table was utilized, detailing information on the source, research focus, and key findings. This table aided in visualizing the distribution of literature and identifying gaps in prior research. Furthermore, source triangulation was applied to ensure data validity by comparing findings from diverse literature types, including academic journals, government reports, and industry studies. This approach enabled the researchers to produce a

comprehensive and in-depth synthesis. The analysis process was conducted iteratively to ensure all relevant aspects were thoroughly addressed. The following table summarizes the categorization of literature used in this study.

Discussion

Sharia Investment Policy Framework

Sharia-compliant investment has emerged as a pivotal pillar in the development of an economy grounded in Islamic values, particularly in Indonesia, which hosts the world's largest Muslim population. The policy framework governing Islamic investment emphasizes not only financial returns but also the attainment of *barakah* (divine blessing), social justice, and sustainable economic development. This argument aims to elaborate on the practical implementation of this policy framework, its theoretical relevance, and its implications for Indonesia, supported by recent literature. Sharia investment is defined as capital placement that adheres to Islamic legal principles, which strictly prohibit *riba* (interest), *gharar* (excessive uncertainty), and *maysir* (speculative behavior akin to gambling). (Afdhal et al., 2024). Its objective is to strike a balance between financial profitability and socio-environmental impact, such as community empowerment and environmental protection. Theoretically, this aligns with the framework of *maqasid al-shariah*, which aims to preserve religion (*din*), life (*nafs*), intellect (*'aql*), lineage (*nasl*), and wealth (*mal*). Practically, this objective manifests through investments in real sectors such as halal agribusiness and renewable energy, which contribute to sustainable development. (Sugiarto, 2025).

The core principles of Islamic investment include *halal* compliance, justice, transparency, profit-and-loss sharing, and social utility. The principle of *halal* ensures that investments avoid prohibited sectors, such as alcohol and gambling industries. Justice and transparency are operationalized through Islamic contracts such as *musharakah* (equity partnership in which profit and loss are shared according to capital contribution) and *murabahah* (cost-plus sale with a pre-agreed profit margin). The principle of profit-sharing distinctly differentiates Islamic investment from the conventional interest-based system, as both investors and entrepreneurs share proportional risks and returns. (Novianto & Nisa, 2024). Theoretically, this approach reflects the concept of distributive justice in Islamic economics, which advocates for equitable resource allocation. In practice, these

principles are implemented through transparent contractual mechanisms—for example, *musharakah*-based financing for micro, small, and medium enterprises (MSMEs) in Indonesia.

According to the Financial Services Authority (OJK) report in 2023, Islamic banking in Indonesia disbursed financing amounting to IDR 585.46 trillion. Despite a slight deceleration compared to the previous year, Islamic banking continued to demonstrate healthy growth, recording an annual increase of 15.72% (year-on-year). In terms of utilization, financing was nearly evenly distributed between consumptive and productive uses, with 50.87% allocated to consumptive and 49.13% to productive financing. Productive financing—which includes working capital and investment—showed an upward trend, with investment financing experiencing the highest growth at 19.93%, followed by working capital financing at 16.48%. Meanwhile, consumptive financing also grew steadily by 13.84% in 2023.

Table 1. Financing Based on Type of Use

Jenis Penggunaan	Nominal 2022 (Rp T)	Nominal 2023 (Rp T)	Pertumbuhan 2022 (yoy)	Pertumbuhan 2023 (yoy)
Konsumsi	261,62	297,83	23,35%	13,84%
Modal Kerja	131,28	152,92	11,28%	16,48%
Investasi	113,04	134,72	23,15%	19,17%
TOTAL	505,94	585,46	19,93%	15,72%

Source: Financial Services Authority (OJK), accessed 2025.

In terms of contract types (*akad*), *musharakah* (profit-and-loss sharing partnership) and *murabahah* (cost-plus sale) remain the most widely used contracts in Islamic financing, accounting for approximately 48% and 44% of total financing, respectively—a combined share of 92%. This data underscores the need for Islamic banks to further explore and utilize the diversity and uniqueness of other Sharia-compliant contractual structures.

The regulatory framework for Islamic investment in Indonesia has evolved significantly, underpinned by Law No. 19 of 2008 on State Sharia Securities (*Surat Berharga Syariah Negara*, SBSN) and various fatwas issued by the National Sharia Council of the Indonesian Ulema Council (DSN-MUI), such as Fatwa No. 40/DSN-MUI/X/2003 on Islamic capital markets. (Kharisma &

Nadilah, 2024). According to Isnaena, these regulations have provided a robust legal foundation for the development of instruments such as *sukuk* (Islamic bonds) and Sharia mutual funds. The fatwas issued by DSN-MUI ensure that all investment products comply with Sharia standards through a rigorous screening process, including the assessment of debt ratios and non-halal income sources of listed companies.(Isnaena, 2024). In practical terms, this regulatory support has spurred the growth of the corporate *sukuk* market, which reached IDR 35 trillion in 2023 (OJK, 2023). Theoretically, this framework represents a harmonization between positive law and Islamic law, thereby providing legal certainty for investors. However, several challenges remain most notably, the lack of Sharia financial literacy among the general population, which continues to hinder deeper market penetration.

Table 2. Financing Based on Contract Type

Akad	Nominal 2022 (Rp T)	Nominal 2023 (Rp T)	Pertumbuhan 2022	Pertumbuhan 2023
Murabahah	251,41	258,84	21,71%	2,95%
Musyarakah	229,85	282,51	19,54%	22,89%
Mudharabah	10,77	12,45	1,51%	15,64%
Qardh	14,31	16,35	13,94%	14,26%
Ijarah	8,33	9,85	15,92%	18,27%
Is'ahna	3,27	4,07	20,87%	24,54%
Muljasa	1,21	1,39	30,93%	15,46%
Salam	2,14	-	-	-
TOTAL	521,32	585,46	20,44%	

Source: Financial Services Authority (OJK), accessed 2025.

Throughout 2023, a total of 54 corporate *sukuk* series were issued, with a total issuance value of IDR 14.99 trillion. During the same period, 41 corporate *sukuk* series matured, amounting to IDR 12.12 trillion. By the end of December 2023, the outstanding corporate *sukuk* reached 234 series, marking a 5.88% increase from the previous year's total of 221 series. In terms of value, the outstanding amount rose by 6.75% year-on-year, reaching IDR 45.27 trillion. (OJK, 2023).

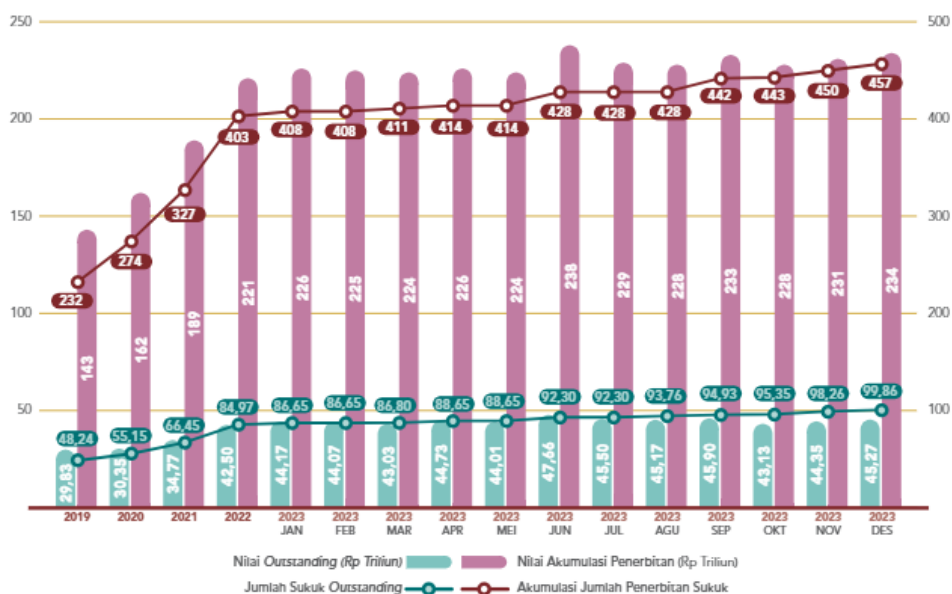


Figure 1: Development of corporate sukuk

Islamic investment instruments in Indonesia include Sharia-compliant stocks, *sukuk*, Sharia mutual funds, gold, real estate, and digital Islamic investments. According to Purnomo et al., *sukuk* have become a popular instrument due to their flexibility in financing infrastructure projects, such as toll roads and hospitals. Sharia mutual funds, structured through *wakalah* (agency) or *mudharabah* (profit-sharing) contracts, offer accessibility for retail investors. Meanwhile, digital Islamic investments-such as Sharia-compliant crowdfunding platforms-have experienced rapid growth under strict supervision to ensure Sharia compliance..(Purnomo et al., 2024) . Practically, these instruments offer broad diversification opportunities, mitigating overreliance on a single asset class. Theoretically, they exemplify financial innovation within Islamic finance, integrating modern technology with Sharia values-such as through Sharia fintech platforms that employ blockchain technology to enhance transparency and trust..

The Role of Fintech in Advancing Financial Inclusion in Indonesia

Financial technology (fintech) has emerged as a key catalyst in accelerating financial inclusion in Indonesia—a country with a large population but relatively low traditional banking penetration, particularly in remote and rural areas. Through technological innovation, fintech bridges the access gap to financial services, enhances operational efficiency, and supports the broader transformation toward a digital economy.(Putranto et al., 2025). Fintech has

revolutionized access to financial services, particularly for the unbanked and underbanked populations in rural regions. Mobile-based digital payment platforms such as GoPay, OVO, and Dana provide accessible, cashless transaction mechanisms without requiring physical banking infrastructure. (Nauli et al., 2025). Moreover, peer-to-peer (P2P) lending platforms such as KoinWorks and Investree adopt Sharia-compliant contracts like *murabahah* (cost-plus sales) and *musharakah* (profit-sharing partnerships) to extend financing to micro, small, and medium enterprises (MSMEs) that are typically excluded from conventional credit schemes. This approach enables MSMEs to access capital without the need for substantial collateral-often a barrier in traditional banking systems. Theoretically, fintech's role aligns with the concept of financial inclusion in development economics, which underscores the importance of universal access to financial services as a strategy to reduce poverty and inequality.(Nugroho et al., 2025). In practical terms, Bank Indonesia (2023) reported a 38% increase in digital payment transactions in 2022, primarily driven by the adoption of the Quick Response Indonesia Standard (QRIS) based payment system that enables small merchants to accept non-cash payments. By the end of 2023, QRIS had been adopted by over 26 million merchants, the majority of whom are located outside major urban centers, indicating fintech's significant impact in expanding financial access across the country. (Indonesia, 2023).

Fintech also improves transaction efficiency by offering services at significantly lower costs compared to traditional banks. For instance, digital wallets such as GoPay can reduce transaction costs by up to 50% relative to interbank transfers.(Suyanto, 2023). In addition, platforms such as Bibit offer digital financial education tools, including investment simulations and step-by-step guides for mutual fund investments, which enhance financial literacy among the general public. These features are crucial for informed financial decision-making. Theoretically, such efficiency supports market efficiency theory, which posits that technology reduces information asymmetry and transaction costs, thereby improving market accessibility. (A'YUNI, 2025) Practically, the Financial Services Authority (OJK) reported that Indonesia's national financial literacy index increased from 38.03% in 2019 to 49.68% in 2023, largely attributed to fintech-driven educational initiatives. However, low digital literacy remains a challenge in rural communities, where only 30% of residents

understand basic digital financial concepts.(OJK, 2023).

Fintech empowers low-income groups and MSMEs by providing quick and flexible access to capital. In 2022, P2P lending platforms disbursed approximately IDR 49 trillion in financing to MSMEs, enhancing their production capacity and competitiveness.(OJK, 2023). Fintech also plays a vital role in supporting digital economic transformation through integration with e-commerce ecosystems. For example, GoPay's collaboration with Tokopedia contributed to a 25% increase in online MSME transactions in 2023.(Indonesia, 2023). Theoretically, this reflects the economic empowerment concept in development theory, which emphasizes the necessity of capital access for marginalized groups to stimulate economic growth. (Zainul Bahri et al., 2023). Practically, the integration of fintech and e-commerce has strengthened the national digital ecosystem, contributing to a 7% growth in the financial sector's GDP in 2022. (Indonesia, 2023).

Despite its positive impacts, fintech still faces critical challenges such as low financial literacy, uneven digital infrastructure, and cybersecurity risks. Only 30% of fintech users in remote areas are aware of risks such as digital fraud, while limited internet connectivity outside of Java hinders broader access. The OJK has issued regulations such as POJK No. 77/2016 to safeguard consumer data, while the Ministry of Communication and Informatics reached 12 million people through digital literacy campaigns in 2023. (OJK, 2023). Theoretically, this reflects an adaptive governance framework that balances innovation with risk management. A combination of stringent regulation and digital education has proven effective in building public trust in fintech; however, reaching remote areas requires cross-sector collaboration. Potential solutions include the development of low-bandwidth fintech applications and community-based educational campaigns aimed at improving rural financial literacy. These approaches can help fintech mitigate risk while maximizing its contribution to inclusive finance. (Saptadi et al., 2025)

In conclusion, fintech plays a pivotal role in promoting financial inclusion in Indonesia by broadening access to financial services, increasing operational efficiency and literacy, and empowering the digital economy. Theoretically, its role reinforces principles of financial inclusion and market efficiency, while empirical data on digital transaction growth and MSME financing attest to its

real-world impact. Although challenges persist-including low literacy levels and infrastructure limitations-adaptive regulation and multisectoral collaboration are critical to building a more inclusive and sustainable financial ecosystem.

Challenges in Implementing Inclusive Digital Economy in Indonesia

The digital economy has become a major driver of economic growth in Indonesia. However, its inclusive implementation still faces significant challenges. With a population exceeding 270 million and a complex archipelagic geography, Indonesia must address gaps in infrastructure, digital literacy, and access to ensure that all segments of society benefit from digital economic advancements.(Hermawan et al., 2025). discussion outlines these challenges by connecting them with theoretical and practical frameworks, and offers insights based on the latest literature.

One of the primary obstacles to achieving an inclusive digital economy is the disparity in digital infrastructure. While internet penetration in Indonesia has reached 78.19%, its distribution remains uneven. Urban areas such as Jakarta and Surabaya enjoy high-speed internet, whereas rural and island regions-such as Papua and East Nusa Tenggara-often have only 2G connectivity or none at all. Indonesia's archipelagic nature, with over 17,000 islands, presents inherent challenges in infrastructure development, which requires substantial investment and time. (Digital, 2024b). Investing in digital infrastructure entails substantial financial resources and extended timelines. Although the *Palapa Ring* project has improved connectivity in several regions, it has yet to fully reach remote and underdeveloped areas. Factors such as challenging topography and low population density in certain regions reduce the attractiveness of private sector investment. As a result, these digital disparities hinder public access to essential digital economic services such as e-commerce, online education, and digital financial platforms.(Husna & Budiman, 2024). Without targeted and strategic intervention, infrastructure gaps will continue to widen the digital divide, leading to the exclusion of remote communities from the benefits of the digital economy. Potential solutions include the implementation of public-private partnerships (PPPs) to accelerate infrastructure development, as well as leveraging satellite technology to reach isolated regions.

Access to digital devices and the internet remains limited among

vulnerable groups, including women, persons with disabilities, the elderly, and low-income populations. A recent study by APJII. revealed that only 49.1% of women in Indonesia have internet access, compared to 50.7% of men. Beyond mere access, low levels of digital literacy present a significant barrier. Many individuals with internet access lack the knowledge to use digital technologies productively-for example, for online marketing or managing digital financial tools.(APJII, 2024). Digital access gaps are often intertwined with socioeconomic and educational inequalities. For low-income communities, digital devices such as smartphones or computers remain prohibitively expensive. Furthermore, the lack of inclusive digital literacy training prevents vulnerable populations from competing effectively in the digital marketplace. Existing training programs are frequently not designed with the specific needs of groups such as persons with disabilities or the elderly in mind. Low digital literacy and access not only hinder participation in the digital economy but also risk exacerbating existing economic inequalities. Therefore, there is a pressing need for inclusive digital literacy programs tailored to the unique needs of vulnerable groups, coupled with subsidized access to digital devices for economically disadvantaged populations.(Dimas & Fahlevvi, 2024).

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of Indonesia's economy, contributing over 60% of the national GDP. However, only approximately 20% of MSMEs have significantly adopted digital technologies.(Digital, 2024a). A majority of MSMEs face persistent challenges in accessing capital, acquiring technological knowledge, and integrating with digital platforms. Digital transformation requires investment in technology, training, and business model innovation-resources that are often lacking, particularly in rural areas. Moreover, a limited understanding of the benefits of digitalization-such as operational efficiency and market expansion-has led many entrepreneurs to remain hesitant about making the transition.(Rauf et al., 2024). Digital platforms, such as online marketplaces, often impose additional costs or require specific expertise that MSMEs may not possess. Without widespread digital transformation, MSMEs risk being left behind in the global competition, thereby diminishing their potential contribution to the digital economy. To address this, the government must scale up digitalization support programs for MSMEs and offer incentives such as subsidized platform fees or free technology training to

accelerate inclusive digital adoption.

Cybersecurity has emerged as a critical issue in parallel with the growth of digital transactions. A report from the National Cyber and Crypto Agency (BSSN) noted a 25% increase in cyberattacks compared to the previous year, including incidents of data theft and online fraud. (Rauf et al., 2024). Kekhawatiran terhadap privasi data juga meningkat, terutama setelah beberapa kasus. Concerns over data privacy have intensified, especially following several high-profile data breaches involving e-commerce platforms and financial service providers. Many digital economy users-particularly individuals and MSMEs-lack the knowledge or tools necessary to safeguard their data. Conversely, large enterprises often fall short of complying with strict data protection standards. Although the enactment of the 2022 Personal Data Protection Law (PDP Law) was a significant regulatory milestone, its implementation remains ineffective due to weak law enforcement and limited awareness among business actors. This lack of trust in data security can hinder the adoption of digital technologies, particularly among new users. Therefore, there is an urgent need for cybersecurity awareness campaigns, capacity-building programs for businesses, and stricter enforcement of data protection regulations to foster a secure and trustworthy digital environment.(Prayuti, 2024).

Regulatory inconsistencies in the digital economy sector have created legal uncertainty for businesses and investors. For instance, frequent changes in digital taxation policies and regulations governing online platforms have led to confusion among business actors. Rapid technological advancements are often not matched by responsive or adaptive regulatory frameworks. Moreover, misalignment between central and local government policies exacerbates the problem. For example, national-level e-commerce regulations are often inconsistent with local-level tax and licensing frameworks. This legal uncertainty can discourage investment and stifle innovation within the digital sector. Cross-sectoral regulatory harmonization and inclusive policymaking through active engagement of relevant stakeholders are essential to foster a conducive environment for the digital economy. (Setiagama, 2024).

The digital economy also risks widening socio-economic disparities in the absence of inclusive policy measures. Vulnerable groups such as the poor, women, and persons with disabilities often face unequal access to digital

economic opportunities. Structural issues such as poverty, gender discrimination, and limited educational access compound this inequality.(Gai et al., 2024). For instance, rural women are often burdened with domestic responsibilities, limiting their time and ability to acquire digital skills. Similarly, persons with disabilities encounter barriers in accessing digital platforms that lack inclusive design. Without targeted interventions, the digital economy may inadvertently reinforce existing inequalities. Public policy must address these gaps by implementing tailored digital inclusion programs such as gender-sensitive digital literacy training and disability-friendly platform design.

Workers in the digital sector especially freelancers such as ride-hailing drivers or content creators often lack access to social protection, such as health insurance or pension schemes. This increases their economic vulnerability. The flexible yet insecure nature of digital work presents new challenges for labor protection. Many digital workers are classified as informal labor and fall outside conventional social security systems. (Zulkarnain Nasution, 2025). Furthermore, digital platforms frequently do not assume responsibility for the welfare of their workforce. The absence of adequate social safety nets may reduce the appeal of digital employment and threaten the long-term sustainability of the digital economy. Innovative policy instruments such as customized social security schemes for digital workers are urgently required to ensure their welfare.

The implementation of an inclusive digital economy in Indonesia faces multifaceted and interrelated challenges. Infrastructure gaps, low digital literacy, and slow business transformation hinder broad access to and participation in the digital economy. Further complicating efforts toward inclusivity are issues such as data security risks, inconsistent regulatory frameworks, widening socio-economic disparities, and the absence of adequate protections for digital workers. Addressing these challenges requires a holistic approach involving collaboration among government, the private sector, and civil society. Adaptive policymaking, equitable infrastructure investment, and targeted inclusion programs for vulnerable groups are essential to realizing a digital economy that is both inclusive and sustainable in Indonesia.

Conclusion

This study demonstrates that Sharia fintech plays a crucial role in

advancing financial inclusion in Indonesia by enhancing access to financial services, improving transaction efficiency, and empowering marginalized communities economically. Three fintech development scenarios are identified: dominance of conventional financial institutions, market segmentation by financial technology innovators, and leadership by digital financial companies. However, challenges such as low Sharia financial literacy (12.1%), disparities in digital infrastructure, and insufficiently adaptive regulations hinder the optimization of Sharia fintech's potential. The sharia investment policy framework, grounded in principles of permissibility, justice, and transparency, supported by regulations such as Law No. 19/2008 and DSN-MUI fatwas, has driven the growth of instruments like sukuk and sharia mutual funds. Nevertheless, the implementation of an inclusive digital economy remains constrained by unequal technology access, low digital literacy, cybersecurity risks, and inadequate protections for digital workers. A data-driven approach and cross-sectoral collaboration are essential to address these challenges and realize an inclusive digital economy.

Future research should focus on developing data-driven policy models for Islamic fintech, integrating technologies such as blockchain to enhance transparency and security. Further studies are needed to explore tailored Islamic financial literacy strategies for vulnerable groups, such as women and rural communities, as well as the long-term impact of fintech on the empowerment of micro, small, and medium enterprises (MSMEs).

Regulators (OJK and DSN-MUI): Formulate adaptive regulations to foster Islamic fintech innovation, including standards for digital contracts and consumer data protection, while strengthening the harmonization of central and regional policies. Government: Accelerate the development of digital infrastructure through public-private partnerships and provide subsidies for digital devices and inclusive digital literacy training for rural communities and vulnerable groups. Islamic Fintech Industry: Develop user-friendly Islamic fintech products, such as low-bandwidth applications, and enhance educational features to promote Islamic financial literacy. Civil Society: Conduct community-based financial literacy campaigns to increase understanding of Islamic investment and the benefits of fintech.

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