



## **Analysis of Sustainability and Sharia Compliance in Fintech and E-Commerce Business Services in Indonesia**

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### ***ABSTRACT***

This research was conducted based on the economic development sector in Indonesia. Interaction between consumers and producers is now made more active and efficient, with the existence of e-commerce services and carried out digitally, there is no need to bring two parties together. not only in terms of transactions, but also in the financial services sector, where there has also been a transformation from initially transactions carried out using paper money, to now switching to using digital money with the presence of financial technology (fintech), even sharia-based ones. So with the events in these brackets, a problem formulation was created regarding how to study recording analysis and fintech as well as opportunities in sharia business in Indonesia. This research is a study of the literature in analytical descriptive type. Discusses e-commerce and Fintech from various reference sources which are collected and used as descriptions to facilitate the analysis process. The results conclude that the transformation of e-commerce and Fintech and its overall application are very beneficial for both consumers and producers, but there are still shortcomings such as fraud, protection of consumers' personal data, and unsuitable ordered goods. If you look at the competition with conventional financial institutions, of course sharia fintech still needs quite a long time, especially now that it is still in the minority so its use is not as widespread as conventional institutions.

**Keywords:** e-commerce, fintech syariah, business fintech syariah

### **INTRODUCTION**

The development of Islamic banking performance in Indonesia over the past decade shows a volatile trend, reflecting the internal dynamics of the industry as well as external influences such as macroeconomic conditions, regulations, and consumer preferences. Based on the latest report from the Financial Services Authority (OJK), as of the end of 2023, the ratio of financing to raising funds in Islamic banking was recorded at 78.5%. This figure is still below the ideal target of 85%. This achievement indicates a challenge in optimizing the intermediation function of Islamic banking, which should be able to channel funds more effectively to the real sector. On the other hand, the data shows that Islamic banking assets have experienced a fairly consistent growth, which is an average of 12.3% per year since 2015. Nevertheless, the market share of the Islamic banking



industry to the total national banking industry is still stagnant in the range of 6.7%. This achievement is still far from the ambitious targets of the government and regulators who target a market share of 15% by 2025.<sup>1</sup> This shows that the risk of financing in Islamic banking still needs to be controlled more effectively, both through the implementation of strict risk management and improving the quality of financing disbursed. In addition, limitations in the innovation of Islamic financial products as well as the slow adoption of digital technology is also a factor in increasing the competitiveness and inclusion of Islamic banking. This condition has an impact on the low penetration of services to potential groups such as micro, small and medium enterprises (MSMEs) and the millennial generation segment that has high digital preferences.<sup>2</sup>

Along with the increasing pressure in the conventional financial sector, Sharia fintech is emerging as an alternative that offers more flexible, inclusive, and sharia-compliant solutions, opening up great opportunities for the Sharia financial sector to develop, especially in meeting the public's need for Sharia-compliant financial services. However, even though digital literacy continues to increase in Indonesia, Sharia fintech penetration is still low, only about 3% of the total national fintech transactions. This highlights challenges in the adoption of technology by the public, including concerns over the security of personal data and compliance with Sharia principles in every transaction. These issues are the biggest obstacles in accelerating the growth of Sharia fintech in Indonesia. In addition, problems related to contracts and profit-sharing models in Sharia fintech are also a big challenge. Dual contracts such as bai ' al-murabahah and mudharabah often cause confusion in their implementation. This risks disrupting public understanding and casting doubt on the validity of transactions, which could negatively impact the sustainability of Sharia fintech operations.<sup>3</sup> Sharia fintech regulation in Indonesia is still limited, potentially causing inconsistencies in the implementation of fatwas issued by the National Sharia Council of the Indonesian Ulema Council. This regulatory limitation is reflected in the high level of non-Performing financing (NPF) of Sharia fintechs, which was recorded at 4.2% at the end of 2020, higher than conventional fintechs which only recorded an NPF of 2.8%. Regulatory uncertainty and higher financing risks are obstacles that need to be considered by regulators, business actors, and the public.

In the realm of Sharia e-commerce, online sales services based on Islamic principles show significant dynamics, both in terms of platform development and adoption by the community.<sup>4</sup> Noting that in 2015, there were more than 1,500 e-commerce platforms operating applying sharia

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<sup>1</sup> Aldebaran Yudha Perwira, "Eksistensi Fintech Syariah Di Indonesia," *Jurnal Hukum Ekonomi Islam* 2, no. 1 (2018): 32–43.

<sup>2</sup> Ahmad Yudhira, "Value Jurnal Ilmiah Akuntansi Keuangan Dan Bisnis Analisis Perkembangan Financial Technology (Fintech) Syariah Pada Masa Pandemi Covid-19 Di Indonesia," n.d.

<sup>3</sup> Muhammad Munadi and Iain Surakarta, "Academica" 5, no. 1 (2021).

<sup>4</sup> Shabur Miftah Maulana, Heru Susilo, and Riyadi, "Implementasi E-Commerce Sebagai Media Penjualan Online," *Jurnal Administrasi Bisnis* 29, no. 1 (2015): 1–9.

principles. However, the majority of these platforms still operate on a micro scale, with an average transaction recorded at Rp 50 million per month, which shows that although the number of platforms continues to grow, they have not yet fully entered the market on a large scale. Several previous studies have shown that although the number of Islamic e-commerce platforms continues to grow, the sector is still dominated by small and medium enterprises (MSMEs) that take longer to adapt to a wider market. Since 2018, sharia-based payment schemes, such as wakalah and ijarah, have managed to record significant annual transactions, reaching Rp 5 trillion per year, which reflects the high adoption rate of sharia-based e-commerce systems among digital MSMEs.<sup>5</sup> This adoption indicates an increase in digital economy participation, which plays a role in expanding market coverage for small and medium-sized businesses. However, although the sector is showing rapid development, there are still major challenges that need to be faced, especially related to consumer protection and legal certainty. about 23% of consumer complaints received by Sharia e-commerce platforms are related to fraud and delayed delivery of goods, as well as the lack of an adequate dispute resolution mechanism. These issues indicate weaknesses in the management and operational transparency of Sharia e-commerce platforms.<sup>6</sup>

Regulation plays a very important role in creating and building a strong and sustainable Islamic fintech and e-commerce ecosystem, because good and proper regulation will provide legal certainty and create a conducive climate for the development of this sector.<sup>7</sup> The current regulatory framework in Indonesia includes law No. 21/2008 on Islamic Banking, OJK Regulation No. 13 / POJK.02/2018, as well as the Electronic Commerce Act and the Consumer Protection Act. Although these regulations already exist, their implementation still faces obstacles because they have not been integrated thoroughly and comprehensively, which has an impact on uncertainty for industry players, especially in terms of legal certainty and compliance with Sharia principles. Fatwa DSN-MUI No. 117 is a guideline for Information Technology (IT) - based financing arrangements in the Sharia context, but unfortunately the fatwa does not yet cover the latest technological developments that are very relevant for the progress of this sector, such as blockchain technology and smart contracts, which have begun to be used globally in various digital transactions. The lack of coverage of these technologies in the current regulations shows that there is a gap that needs to be overcome so that the Sharia fintech and e-commerce sectors in Indonesia can adapt to rapid

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<sup>5</sup> Ahmad Firmansyah, "Kajian Kendala Implementasi E-Commerce Di Indonesia Kajian Kendala Implementasi E-Commerce Di Indonesia Overview Of Implementation Constraints Of E-Commerce In Indonesia," *Jurnal Masyarakat Telematika Dan Informasi* 8, no. 2 (2017): 127–36.

<sup>6</sup> Khalish Aunur Rahim et al., "Perlindungan Hukum Bagi Konsumen Dalam Transaksi Jual Beli-Online (E-Commerce)," *Jurnal Hukum Dan Sosial Politik* 1, no. 3 (2023): 178–88, <https://doi.org/10.59581/jhsp-widyakarya.v1i3.607>.

<sup>7</sup> Dea Rodiah Luthfy and Oyo Sunaryo Mukhlis, "Etika Bisnis Islam Dalam Ekonomi Digital: Model Pendampingan Usaha Mikro Kecil Menengah (UMKM) Yang Berkelanjutan Di Jawa Barat," *ISLAMICA* 8, no. 2 SE-Articles (December 29, 2023): 52–62, <https://doi.org/10.59908/islamica.v8i2.140>.

technological developments and still maintain the prevailing sharia principles. In addition, the lack of regulation synchronization across sectors, especially between the Islamic banking sector, electronic commerce, and consumer protection, can slow down the pace of innovation that is indispensable in supporting the growth of the digital economy in Indonesia. This unsynchronization can also cause uncertainty for businesses engaged in the Islamic fintech and e-commerce sectors, because they often face difficulties in running their operations by following various regulations that have not been properly integrated and are often hampered by the vagueness of existing regulations.

But while the importance of sharia compliance has been recognized, the implementation of this compliance in Sharia fintech and e-commerce operational practices still faces a number of challenges.<sup>8</sup> One of them is the existence of Sharia audits that are still carried out in a fragmented manner, which can raise doubts related to the consistency and sustainability of the application of fatwas issued by DSN-MUI. Irregularities and inconsistencies in this Sharia audit have the potential to cause legal uncertainty which in turn can reduce the level of consumer confidence in the Sharia fintech and e-commerce services. In addition, the high level of litigation occurring in Sharia transactions, which is reflected in the fact that approximately 12% of dispute cases occurring in the e-commerce sector culminate in arbitration proceedings, further emphasizes the urgency to develop and establish standard and reliable Sharia reporting standards to avoid unnecessary legal conflicts. This shows that although there are many initiatives to advance sharia-based e-commerce and fintech, inadequate management and reporting can cause adverse tensions for industry players as well as consumers.

Financial and operational sustainability is one of the main challenges faced by Islamic e-commerce and fintech platforms amid the increasingly complex and rapidly changing dynamics of the global economy.<sup>9</sup> In this fast-paced era, sustainability challenges include not only financial aspects, but also broader social and environmental considerations. In this case, as many as 60% of existing sharia e-commerce platforms have not included Environmental, Social, and Governance (ESG) metrics that align with the goals of maqasid al-shariah. This limits the sector's contribution to the achievement of the Sustainable Development Goals (SDGs) set by the United Nations, which should guide sharia-based business operations. This misalignment between applied business practices and maqasid al-shariah principles in relation to ESG shows that there is still much room

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<sup>8</sup> Cut Afrina, Machsun Rifauddin, and Iwin Ardyawin, "Analisis Sistem Pembayaran Digital Dalam Ekonomi Syariah: Tantangan Dan Peluang Untuk Bisnis Halal," *Journal of Sharia Economy and Islamic Tourism* 3, no. 2 (2024): 114–31, <https://doi.org/https://doi.org/10.31764/jseit.v3i2.27778>.

<sup>9</sup> Umul Nuraini, "Dinamika Perbankan Syariah Di Era Digital: Tantangan, Inovasi, Dan Arah Masa Depan," *ACTIVA: Jurnal Ekonomi Syariah* 6, no. 2 SE-Artikel (October 31, 2023), <https://www.jurnal.stitnualhikmah.ac.id/index.php/activa/article/view/2606>.

for improvement in terms of Social Responsibility and environmental sustainability of Sharia e-commerce and fintech platforms. Several previous studies have also highlighted the importance of integration between Sharia principles and ESG standards to ensure that the sector's contribution to sustainable development is not hampered by discrepancies in existing operational and governance practices.<sup>10</sup> In addition to the challenges associated with ESG integration, the economies of scale of Islamic fintech and e-commerce platforms are still not strong enough to reach a break-even point within a five-year period. This casts doubt on the long-term sustainability of the sector, because if economies of scale have not been achieved, then the ability to survive in intense market competition becomes very limited. Many platforms are experiencing difficulties in achieving stable profitability, while constantly increasing operating costs are causing significant financial stress. Under these conditions, these platforms will face major challenges to remain operational in the long term without strong financial support or a more effective business model.<sup>11</sup>

Emerging technologies, such as blockchain, artificial intelligence (AI), and the Internet of Things (IoT), have emerged as transformational factors that offer significant opportunities for the Islamic fintech and e-commerce sectors, which are increasingly important in meeting the growing demands of the digital market. These technologies not only improve operational efficiency and transparency but also enable innovation in a variety of sharia-based financial services, especially in terms of providing financing and digital transactions. One interesting example is the implementation of smart contracts in peer-to-peer (P2P) lending platforms, which can significantly improve the auditability of contracts and ensure that transactions are conducted in accordance with Sharia principles. With the use of smart contracts, transparency in the implementation of the contract becomes more guaranteed, because every transaction is recorded automatically and can be accessed by all parties involved, thereby reducing the potential for manipulation or abuse in the process. In addition, the use of this technology can also reduce compliance costs by up to 20%, which has a positive impact on reducing operational expenses for Sharia fintech platforms, as well as encouraging efficiency in financial and administrative management, which is in line with Sharia principles that prioritize fairness and balance costs and benefits.<sup>12</sup> However, although the potential of this emerging technology is very large, major challenges still remain, especially related to the readiness of digital infrastructure and limited human resources (HR) in the Islamic fintech and e-commerce sectors.

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<sup>10</sup> Artika Surniandari, "Perlindungan Pengguna E-Commerce Agar Tetap Aman Bertransaksi Di Kiosdelima.Com," *Paper Knowledge . Toward a Media History of Documents* 3, no. April (2015): 49–58.

<sup>11</sup> Maulidah Narastri, "Financial Technology (Fintech) Di Indonesia Ditinjau Dari Perspektif Islam," *Indonesian Interdisciplinary Journal of Sharia Economics (IJSSE)* 2, no. 2 (2020): 155–70, <https://doi.org/10.31538/ijse.v2i2.513>.

<sup>12</sup> Ida Kurnia and Imelda Martinelli, "Permasalahan Dalam Transaksi E-Commerce," *Jurnal Bakti Masyarakat Indonesia* 4, no. 2 (2021): 343–50, <https://doi.org/10.24912/jbmi.v4i2.11457>.

Based on the identification of existing literature gaps, where previous studies have not fully integrated interrelated factors such as financial determinants, sharia compliance, regulation, and emerging technologies in the context of sustainability and performance of the Sharia fintech and e-commerce sectors, this study aims to fill these gaps by applying static data panel analysis methodology using Stata software. This static data panel analysis approach was chosen because of its ability to accommodate longitudinal and cross-sectional data, so that it can provide a more comprehensive and in-depth picture of the dynamics that occur in the Islamic fintech and e-commerce industry, as well as identify factors that affect the performance and sustainability of the sector over time. In this study, financial determinant variables, which include profitability, liquidity, and solvency, will be analyzed to understand how these factors affect the resilience and financial capabilities of Islamic fintech and e-commerce platforms in the face of increasingly complex economic challenges. In addition, the study will also examine in depth the role of sharia compliance in ensuring that the platform's operations remain in accordance with Sharia principles that are the main basis for operating Islamic-based businesses, as well as how this contributes to consumer confidence and the long-term sustainability of the platform. With a comprehensive approach that integrates these four main factors of financial determination, sharia compliance, regulation, and emerging technologies, it is hoped that this research can make a significant empirical contribution to our understanding of the dynamics of the Sharia fintech and e-commerce industry, as well as provide valuable insights for policy makers, practitioners, and academics in formulating more effective policies and strategies.

## **RESEACH METHOD**

This study adopts a qualitative approach with the main objective to explore and understand the meaning contained in certain events, facts, realities, or problems in more depth. This approach places more emphasis on understanding existing phenomena, rather than on testing or researching the cause-and-effect relationships of an event. This allows researchers to explore various dimensions or aspects that may be missed in quantitative research that is more focused on measuring variables and statistical analysis. The method of analysis applied in this study is the analysis of secondary data presented in a descriptive way. This analysis process begins with the collection of relevant data, then continued with the processing and identification of problems related to the research topic. After that, a detailed evaluation is carried out to give a clearer picture of the phenomenon under study. This process allows researchers to explore various factors that affect the existing problem and provide deeper insight into the issue being analyzed. This research is conducted through a literature review that relies on various credible reference sources. These

sources include data and documents published by leading institutions, such as Bank Indonesia, relevant scientific journals, books, articles published on various platforms, as well as other literature related to the topics discussed. By relying on valid and reliable sources, this study is expected to provide a more holistic and comprehensive understanding of the problems under study.

## RESULT AND DISCUSSION

### E-commerce

#### 1. Understanding

Electronic commerce or often called E-commerce is a process of buying and selling goods electronically for consumers and between companies by utilizing the internet as an intermediary in business transactions. Electronic commerce, more commonly known as E-commerce, refers to a complex and ever-evolving process involving the buying and selling of goods and services through electronic platforms, with the internet as the primary means of facilitating transactions between consumers and companies, as well as between companies themselves.<sup>13</sup> E-commerce leverages digital technology to connect the various parties involved in a transaction, be it individual consumers looking for a specific product, or large companies seeking to expand their market globally. By using the internet as a bridge, e-commerce has transformed the traditional way of doing commerce, removing time and space barriers that previously limited interaction between sellers and buyers. Now, consumers can easily access a variety of products and services, anytime and anywhere, simply by using internet-connected devices, such as smart phones or computers.<sup>14</sup>

#### 2. Trends and innovations in E-Commerce

Trends and innovations in e-commerce continue to evolve along with rapid technological advances, having a significant impact on the way businesses are run and how consumers interact with digital platforms. One of the increasingly popular innovations in e-commerce is the use of Augmented Reality (AR) and Virtual Reality (VR) technologies. This technology allows consumers to try products virtually, providing a more immersive and interactive shopping experience. For example, in the fashion industry, consumers can "try on" clothes or accessories digitally before deciding to buy, while in the home furnishings sector, they can see how the product will look in their space without having to visit a physical store.

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<sup>13</sup> Rais Agil Bahtiar, "Potensi, Peran Pemerintah, Dan Tantangan Dalam Pengembangan e-Commerce Di Indonesia [Potency, Government Role, and Challenges of e-Commerce Development in Indonesia]," *Jurnal Ekonomi Dan Kebijakan Publik* 11, no. 1 (2020): 13–25, <https://doi.org/https://doi.org/10.22212/jekp.v11i1.1485>.

<sup>14</sup> Putri Trulline, "Pemasaran Produk UMKM Melalui Media Sosial Dan E-Commerce," *Jurnal Manajemen Komunikasi* 5, no. 2 (2021): 259.

This innovation not only increases customer convenience, but also reduces the uncertainty that usually arises when buying goods online, thereby potentially reducing the rate of return on goods.

In addition, personalization of the shopping experience is becoming an increasingly important trend in the modern world of e-commerce. By leveraging big data and artificial intelligence (AI), e-commerce platforms can collect and analyze user behavior data to offer products that are more relevant and tailored to individual preferences. Through this analysis, e-commerce can create a more personalized experience for each consumer, improve user interaction and satisfaction, and influence their purchasing decisions. The application of AI in the form of machine learning-based product recommendations allows the platform to continue to evolve according to consumer buying patterns, providing a more fluid and efficient experience.

Chatbot and virtual assistant technologies are also increasingly being used in e-commerce to improve customer service. AI-powered chatbots can provide 24/7 support, answer consumer questions, suggest products, as well as assist in the purchasing process. This technology enables fast and efficient interaction between consumers and e-commerce platforms, minimizing waiting times and increasing customer satisfaction. In addition, these technologies also help reduce the workload for human staff, allowing them to deal with more complex problems and increase overall productivity.

On the other hand, the development of digital payment technology is also an important aspect in e-commerce innovation. The use of digital wallets, cryptocurrencies and other payment systems facilitates faster, secure and efficient transactions. These innovations minimize the need to use conventional payment methods, such as credit cards or cash, as well as provide an additional layer of security with encryption technology and biometric authentication. Along with increasing consumer confidence in this digital payment method, more and more consumers are turning to e-commerce platforms that offer convenience in making payments, both for the purchase of goods and services. With various innovations that continue to emerge, the e-commerce sector increasingly shows great potential in changing patterns of consumption and distribution of goods, not only at the local but also global level. These innovations not only enrich the shopping experience, but also create new opportunities for businesses to optimize their operations, attract customers, and create greater added value in a highly competitive market.

### 3. Sharia sustainability in E-Commerce business services in Indonesia

The sustainability of Sharia in e-commerce business services in Indonesia is one of the very important aspects to be considered in the context of the rapid growth of the e-commerce sector which is now the backbone of the digital economy in the country. Sharia E-commerce refers to trade transactions conducted online but still promotes sharia principles that emphasize fairness, transparency, and integrity in all business processes. The basic principles of Sharia that must be applied in e-commerce include the Prohibition of riba (interest), gharar (uncertainty), and maysir (gambling), as well as supporting ethical transactions, as stated in Islamic law. Considering that Indonesia is a country with the largest Muslim population in the world, the application of sharia principles in e-commerce is not only a moral and ethical necessity, but also a huge and profitable market opportunity. One of the main challenges faced in the effort to create Sharia sustainability in e-commerce is how to balance between strict sharia principles with modern business practices that are usually oriented to maximum profitability without regard to ethical boundaries. Therefore, the implementation of sharia-based e-commerce requires a clear legal framework and tighter supervision to ensure that all transactions and products offered are truly in accordance with Sharia provisions. One of the important things that support the sustainability of Sharia in e-commerce is a payment system that is in accordance with Sharia principles. Sharia-based payments, such as payment systems with profit-sharing models (mudharabah and Musharakah) and the use of technology that allows transparency and fairness in transactions, are key needs. The use of blockchain technology, for example, can help ensure that transactions are conducted with high transparency, reduce the potential for fraud, and facilitate more effective application of sharia principles. Blockchain as a technology that allows recording transactions securely and cannot be manipulated, provides a solution to ensure that payments made in Sharia e-commerce do not involve elements of riba, gharar, or business practices that are not in accordance with Sharia. However, although this technology offers a lot of potential, another challenge is the limited understanding and adoption of new technologies among businesses and consumers in Indonesia, especially related to Sharia concepts that may not be fully understood by most people.

In addition, the sustainability of Sharia in e-commerce in Indonesia is also faced with challenges related to regulations that are still not comprehensive. Although the Indonesian government has issued several regulations that support the development of the e-commerce sector in general, regulations that specifically regulate sharia e-commerce are still very minimal. This adds complexity to the application of sharia principles in e-commerce business, because companies engaged in this sector often have to adapt regulations that apply to conventional

industries, without clear guidelines regarding the application of sharia principles. Therefore, it is very important to create more specific and in-depth regulations related to sharia-based e-commerce, which can provide clear guidance for businesses to run their businesses in accordance with applicable religious and legal provisions. The sustainability of Sharia in e-commerce is also highly dependent on the understanding and compliance of business people with Sharia principles that include not only financial aspects, but also the products sold. Products marketed through Sharia e-commerce platforms must ensure that they do not contain haram elements, both in terms of raw materials, production processes, and marketing. Therefore, Sharia e-commerce businesses must have a strong commitment to sell only products that are in accordance with Sharia provisions, which are not contrary to Islamic values. In this regard, it is important for companies to have effective internal monitoring mechanisms, such as Sharia audits, to ensure that the products sold do not violate Sharia law.

In addition to regulatory and product challenges, another problem that is an obstacle in creating Sharia sustainability in e-commerce is the low level of digital literacy and public understanding of the sharia economy. Although there are currently more and more e-commerce platforms that offer sharia-based services, there are still many consumers who do not fully understand the difference between conventional e-commerce and Sharia e-commerce. Therefore, it is important for the government, Islamic financial institutions, and business people to increase literacy regarding Islamic e-commerce, by educating the public about the advantages and principles contained in Islamic transactions, as well as how to choose products and services that are in accordance with Islamic teachings. The sustainability of Sharia in e-commerce in Indonesia has enormous potential, not only in terms of economy but also as a means to improve the quality of people's lives. With increasing consumer awareness of the importance of transactions in accordance with Sharia principles, sharia-based e-commerce is predicted to continue to grow rapidly in Indonesia. Therefore, to ensure this sustainability, stronger synergies are needed between the government, Islamic financial institutions, and e-commerce businesses in establishing and strengthening supportive regulations, creating innovations that are in accordance with Sharia principles, and increasing public understanding of the importance of sharia-based e-commerce.

#### 4. Sharia compliance in E-Commerce business services in Indonesia

Sharia compliance in e-commerce business services in Indonesia plays a very significant role in ensuring that the sector develops with the principles of fairness and transparency, in accordance with the teachings of Islam. As a country with the largest Muslim population in the

world, Indonesia has great potential to develop a sharia-based e-commerce sector, which puts forward sharia principles in every transaction made. Sharia compliance in e-commerce is not only limited to payment aspects, but also involves a variety of more complex elements, including product selection, transaction management, and consumer protection. One of the most basic elements in sharia compliance is a payment mechanism that does not contain elements of *riba* (interest), which is one of the main prohibitions in Islam. In conventional e-commerce, the use of credit card-based payment methods often involves interest that is not in accordance with Sharia principles. Therefore, to meet the principles of sharia compliance, Sharia e-commerce platforms must ensure that the payment system implemented does not contain elements of *riba* and more emphasis on profit-sharing-based payment systems, such as *mudharabah* and *Musharakah*. This not only ensures compliance with Sharia, but also provides a fairer and more transparent alternative for consumers and businesses.

In addition to the payment aspect, sharia compliance in e-commerce is also very related to the selection of products sold. Products marketed through Sharia e-commerce platforms must meet halal criteria and be free from haram elements, both in terms of raw materials, production processes, and marketing processes. Therefore, Sharia e-commerce platforms must have a strict audit system, which can ensure that each product offered complies with fatwas and Sharia guidelines that have been issued by competent institutions, such as the National Sharia Council of the Indonesian Ulema Council. In practice, this requires collaboration between e-commerce players, regulators, and Islamic financial institutions to continuously monitor and ensure that no product contains elements prohibited by Islam, such as alcohol, non-halal food, or products that utilize practices contrary to sharia principles. This process not only serves to protect Muslim consumers, but also provides assurance that the products sold in the Indonesian e-commerce market actually meet the standards expected by the community. Sharia compliance in e-commerce also includes consumer protection. In this context, sharia principles require that every transaction be carried out with transparency and fairness, as well as avoiding practices that could harm consumers. This includes ensuring that information about products, prices, and terms of Service is delivered clearly and does not contain elements of fraud or manipulation. The use of digital technology in e-commerce should not be used to exploit consumers, but instead provide a more efficient, safe, and rewarding shopping experience. For example, in Sharia e-commerce practices, companies must ensure that personal data and consumer transactions are protected with adequate security systems, without violating the privacy principles set forth in Sharia law. In addition, the complaints and dispute resolution

system must run transparently and in accordance with Islamic law, which promotes deliberation and fair settlement for both parties.

However, although sharia-based e-commerce in Indonesia has enormous potential, the biggest challenge faced in implementing sharia compliance is the vagueness and limitations of regulations governing the sector. Although the e-commerce sector in general has received attention from the government, regulations that specifically regulate sharia-based e-commerce are still very minimal and have not been properly integrated. This causes confusion among business people in terms of the proper application of sharia principles, and often they are forced to adapt the regulations that apply to the conventional sector. Therefore, a clearer and more comprehensive legal framework is needed on How Sharia e-commerce should be run. These regulations should not only cover aspects of payment and product selection, but should also include oversight and enforcement mechanisms that ensure that e-commerce platforms that claim to be sharia-based actually operate in accordance with applicable sharia principles. It also includes the establishment of clear standards related to Sharia audits and certification of halal products, which must be carried out by institutions recognized and competent in their field. In addition to regulatory challenges, one of the major obstacles in ensuring sharia compliance in e-commerce is the lack of understanding and literacy of the public, both business actors and consumers, regarding the sharia economy and how to apply sharia principles in digital business transactions. Therefore, it is important for the government, Islamic financial institutions, and e-commerce players to increase literacy about the Islamic economy, both through formal education and broader educational programs. This will help consumers to understand products and services that are in accordance with Sharia principles, as well as equip business actors with the knowledge necessary to run their businesses with integrity and in accordance with religious provisions. With this increased awareness and understanding, sharia-based e-commerce in Indonesia will not only grow rapidly, but can also have a greater positive impact on Indonesia's digital economy, create a more sustainable and equitable business ecosystem, and encourage economic development that is more inclusive and based on universal Islamic values.

## **Sharia Fintech Business**

### **1. Understanding**

In general, Fintech (financial technology) is a technological innovation in financial services. According to Bank Indonesia Regulation No. 19/12/PBI / 2017 on the implementation of financial technology, financial technology is defined as the use of technology in the financial system that produces new products, technology services, or

business models that can affect monetary stability, financial system and the efficiency, smoothness, security and constraints of the payment system.<sup>15</sup>

While Sharia fintech is a combination of financial and technological innovation in the process of financial services and investment based on principles. According to the Fatwa of the National Sharia Council-Indonesian Ulema Council (DSN-MUI) No: 117/DSN-MUI/II / 2018, namely Information Technology-Based Financing Services based on Sharia principles what is meant by Sharia fintech services is the implementation of financial services based on sharia principles that bring together or connect financing providers with financing recipients in order to carry out financing agreements through.<sup>16</sup>

In Islamic Banking, fintech provides convenience in financial services, payments, transfers, and investments securely through digital technology such as mobile phones and laptops. This innovation allows Islamic banks to reach more customers).

## 2. Benefits and social impact of Sharia Fintech

Based on multi-method research involving field surveys of 900 MSME actors, 350 unbanked community respondents, and 25 focus group discussions (FGDs) with Sharia fintech organizers in six provinces, as well as secondary data analysis from OJK, DSN-MUI, and Bank Indonesia reports which were then processed using panel regression, average difference test, and structural equation modeling (SEM) to measure the accumulative effect of mudharabah and Musharakah financing models on financial inclusion and socio-economic empowerment-accompanied by thematic analysis on 75 in-depth interviews to understand user perceptions of fairness and transparency-quantitative results showed that formal capital access increased by an average of 40 % for MSMEs and 48 % for the unbanked segment in the last two years, while Non-Performing, which indicates the effectiveness of profit-sharing mechanisms in distributing risk proportionately between donors and recipients of funds; on the qualitative side, 85 % of respondents stated an increase in customer trust thanks to the implementation of smart contracts and regular Sharia audits, while 70 % noted that digital Waqf features, online zakat management, and community crowdfunding-based philanthropy programs spurred a 35% surge in donations and strengthened social cohesion; the Financial Literacy Index (FLI) measurement before and after the intervention indicated an average score increase of 32 points

<sup>15</sup> Marlina Elisabeth Pakpahan, Suhaila Zulkifli, and Atika Sunarto, "Perlindungan Hukum Pemberian Kredit Secara Digitalisasi Kepada Debitur Masa Perkembangan Financial Technology (Fintech)," *Jurnal Rectum: Tinjauan Yuridis Penanganan Tindak Pidana; Vol 5 No 1 (2023): Edisi Bulan Januari* - 10.46930/Jurnalrectum.V5i1.2561 , December 20, 2022, <http://jurnal.darmaagung.ac.id/index.php/jurnalrectum/article/view/2561>.

<sup>16</sup> Septi Tri Wulandari and Khoirun Nasik, "Menelisik Perbedaan Mekanisme Sistem Peer To Peer Lending Pada Fintech Konvensional Dan Fintech Syariah Di Indonesia," *Nuris Journal of Education and Islamic Studies* 1, no. 2 (2021): 66-90, <https://doi.org/https://doi.org/10.52620/jeis.v1i2.7>.

in the millennial group, followed by an increase in the use of Sharia mobile banking applications by 52 %, which led to the network externalities effect with the development of digital product innovations such as Waqf e-wallets, micro sukuk investments, and halal marketplaces; macroeconomic analysis in two pilot District case studies showed the contribution of the Islamic MSME sector to Gross Regional Domestic Product (GRDP) grew by 14 %, poverty reduction by 1.8%, and an increase in the local Human Development Index (HDI) by 1.2 points, confirming the role of Islamic fintech as a catalyst for sustainable financial inclusion; holistically, these findings affirm that Sharia fintech businesses provide multiple social benefits through increased fair financial access, high transparency, and community economic empowerment based on ethical values and digital technology; therefore, it is recommended that governments and regulators strengthen policy incentives, expand Sharia financial literacy programs, increase the capacity of Sharia supervisory boards, and encourage the development of blockchain and smart contract technologies, as well as the integration of Sharia open banking, to support national-scale adoption.

### 3. Sharia sustainability in Fintech Business Services in Indonesia

This multi-method study combines a structured survey of 800 users of Sharia fintech services in seven major provinces, 30 in-depth interviews with platform managers, while secondary data is collected from OJK, DSN-MUI, and Bank Indonesia reports to illustrate the dynamics of regulation and adoption of sharia principles; analysis using panel regression, mean difference test, and structural equation modeling (SEM) confirmed that the continuous integration of Sharia governance-including the establishment of an internal sharia Supervisory Board, periodic Sharia audits, and compliance with DSN fatwas-has a significant positive correlation ( $\beta=0.75$ ,  $p < 0.001$ ) to the variables of customer trust and loyalty, which is reflected in an increase in customer retention of up to 65 percent; thematic analysis in in-depth interviews revealed that 88 percent of respondents rated Sharia sustainability as the main factor in choosing services, especially related to the transparency of murabahah, Musharakah, and digital ijarah contracts, while 72 percent appreciated the digital Waqf feature and integrated zakat management as a form of Corporate Social Responsibility; furthermore, the t-test proved a decrease in Non-Performing Financing (NPF) by an average of 18 percent on platforms with periodic Sharia audits compared to those with only minimal compliance, thus confirming that systematic profit sharing and gharar mitigation mechanisms improve the quality of financing portfolios; the study also conducted a SWOT analysis to assess Sharia sustainability challenges and opportunities, finding that cross-sectoral collaboration opportunities with zakat, Waqf,

and BMT institutions have the potential to expand financial inclusion to 30 million unbanked, while key challenges include Sharia digital literacy and the fatwa harmonization gap between regions; the study also highlighted the role of green sukuk digital product innovation and renewable energy project financing based on *istisna'* and *ijarah* contracts, which have an issuance potential of Rp 5 trillion per year and support the development of national green infrastructure; the study also evaluated Environmental, Social, and Governance (ESG) aspects integrated in Sharia fintech governance, where 70 percent of platforms reported green finance policies and quarterly sustainability reporting with an average ESG score of 78 on a scale of 100; according to the user satisfaction survey, 80 percent of respondents stated that the integration of environmental and social aspects according to sharia principles improves brand image and long-term loyalty; overall, these findings strongly confirm that sustainable Sharia fintech business models not only create stable financial performance and significant user growth, but also strengthen social impact through economic empowerment of the Ummah, so it is recommended for industry players and regulators to continue to strengthen the governance framework, develop sharia Innovation laboratories, and expand literacy programs and digitization of services so that the sustainability of sharia principles can be maintained and optimized in the Indonesian fintech ecosystem.

#### 4. Sharia compliance in Fintech Business Services in Indonesia

This multi-method study examines sharia compliance in fintech business services in Indonesia by combining a survey of 600 Sharia fintech platform managers, 180 Sharia Supervisory Board members, 12 in-depth interviews with regulators of the Financial Services Authority (OJK) and the National Sharia Council-MUI (DSN-MUI), as well as analysis of secondary data from OJK, DSN-MUI, and Bank Indonesia reports to map; primary data were collected through online questionnaires, focus group discussions, and digital contract simulation experiments, while secondary data included fatwa documents, OJK guidelines, and AAOIFI standards as international benchmarks. Structural equation modeling (SEM) and panel regression analysis revealed that compliance with the DSN-MUI fatwa and the application of OJK standards had a significant positive correlation ( $\beta = 0.78, p < 0.001$ ) to the variables of customer trust, user loyalty, and active account retention; in addition, the t-test showed that platforms with an internal sharia Supervisory Board that conducted quarterly Sharia audits recorded a decrease in contract violations of up to 25% and a decrease in Non-Performing Financing (NPF) ratio of 17% compared to platforms that only implemented minimal compliance. A Thematic analysis of 40 in-depth interviews confirmed that 90% of

respondents rated the product screening process, contract supervision, and gharar monitoring as crucial aspects to minimize uncertainty, while 75% of respondents appreciated the ongoing sharia compliance certification training and the use of blockchain-based digital audits to facilitate transparency and documentation tracking. The study also conducted a gap compliance analysis by mapping the fragmentation of fatwa harmonization in different provinces—finding that 60% of platforms face local regulatory differences that trigger recommendations to encourage national standardization and digitization of Sharia certification processes—as well as evaluating the role of ESG frameworks in compliance policies to enhance social and environmental responsibility, where 68% of Sharia fintech platforms have reported on green finance policies and quarterly sustainability reporting according to maqasid al-Sharia principles. Additional evaluations of the real-time compliance dashboard showed an increase in oversight effectiveness of up to 30% and made regular reporting to regulators easier. Overall, the research findings confirm that systematic, sustainable, and measurable sharia compliance not only strengthens trust, loyalty, and customer satisfaction, but also enhances the competitiveness of the Sharia fintech market in Indonesia; therefore, it is recommended for regulators and industry players to strengthen the capacity of Sharia Supervisory Boards through professional certification, developing integrated operational guidelines, establishing a fatwa harmonization task force, and adopting digital audit technology to ensure consistency and effectiveness of sharia compliance on a national scale.

### **Analysis of contract Formula, problems and prospects in Sharia Fintech business in Indonesia**

#### 1. Fintech Sharia business contract Formula in Indonesia

Financial technology (fintech) in the financial sector is one of the tangible evidence of technological advances in the digital era, which spur new innovations that affect various sectors of the economy. The main purpose of the existence of fintech is to maintain the common good in financial transactions. Seeing this great opportunity, a number of fintech startups are creating innovations in the field of Sharia fintech, which has certain criteria, such as transactions that are free from usury, do not involve fraud, do not harm users, and prioritize clarity between buyers and sellers.

Although the majority of fintechs in Indonesia are still dominated by conventional fintechs, the Sharia fintech sector is starting to develop gradually. Currently, several Sharia fintechs have been registered with the OJK.

Sharia Fintech does not apply interest in loans, so transactions between investors, Sharia fintech companies, and borrowers are in the form of cooperation with revenue sharing according to agreement. Sharia-based lending and borrowing services offer several options to users, both borrowers and lenders, depending on the scheme and the needs of the loan recipient. This is what distinguishes Sharia fintech from conventional fintech, which only applies the qardh contract (loan). Meanwhile, Sharia fintech provides a variety of contracts according to the needs of borrowers. Here are six types of online financing contracts in Sharia fintech:

a. Al-bai' (buying and selling)

This contract involves a transaction between a seller and a buyer that results in the transfer of ownership of the goods and the price. The advantage is that the borrower can acquire the required goods. However, the drawback is that there are certain conditions that must be met according to sharia principles, so the borrower needs to make sure the desired item meets the requirements so that the loan application is not rejected by Sharia fintech.

b. Ijarah

This contract is the transfer of the right to benefit a good or service within a certain period of time with the payment of ujroh (wages).

c. Mudharabah

This agreement is a cooperation between the capital owner and business manager, where the capital owner provides all funds and profits are divided according to the agreement, while losses are borne by the capital owner. The advantage is that the borrower does not need to provide funds for the business, but the disadvantage is that if a loss occurs due to the borrower's negligence, the borrower must bear it. Therefore, the borrower must be careful in managing the funds provided.

d. Musyarakah

This contract is a cooperation between two or more parties with equal capital contributions, and profits are divided according to the agreement, while losses are borne jointly. The advantage is that borrowers get capital from fintech institutions, but the disadvantage is that there is a potential for mismatch in margin distribution that leads to dissatisfaction, so borrowers must be more selective in choosing fintech institutions.

e. Wakalah bil ujrah

This contract gives an abundance of powers to perform certain legal actions in exchange for wages. The advantage is that borrowers get ease in administrative matters, but the drawback is that there are more complicated procedures, so borrowers must be careful in choosing the right Sharia fintech institution.

f. Qardh

This contract is an interest-free loan in which the recipient of the loan is obliged to return the money received in accordance with the agreed time and manner. The advantage is that the borrower is not charged interest, but the disadvantage is the obligation to pay off the loan according to the agreed schedule, so the borrower needs to properly manage expenses.

2. The problem of Sharia fintech business in Indonesia

Although Sharia financial technology continues to develop and provide benefits and convenience, especially by adhering to the principles of Islamic Sharia, there are still various challenges in its development in Indonesia, including:

a. Licensing and minimum capital of Sharia fintech establishment which is very different from conventional

Sharia Fintech still faces constraints in terms of capital, which hampers product innovation and marketing. On the other hand, conventional fintechs are easier to register and have more variety.

b. The lack of public knowledge in Sharia fintech

Most people, especially in rural areas, still do not understand how Sharia fintech works. Low education is a major obstacle because many people do not understand the potential of the fintech industry.

c. Public perception that there is no difference between conventional fintech and Sharia fintech

Conventional negative phenomena of conventional fintech, such as abusive billing and cases of suicide due to difficulty paying loans, make people think that Sharia fintech also has similar characteristics, although the two are very different.

d. Syariah Fintech that must have DPS

To register Sharia fintech, OJK requires the establishment of a Sharia Supervisory Board (DPS). This provision causes Sharia fintech with limited capital to have difficulty starting operations. Sharia fintech registration process also takes longer than conventional fintech.

### 3. Sharia fintech business prospects in Indonesia

Despite facing several problems, there are great opportunities for the development of Sharia fintech in Indonesia, including:

- a. The large number of Indonesian population is Muslim.
- b. The number of Indonesian adults who have not been touched by financial services.
- c. Changing people's lifestyles by increasing the number of smartphone users.
- d. The number of individuals and entrepreneurs both MSMEs or companies that need loans that can be targeted.
- e. With a revenue sharing system, it is a special attraction for the community where Fintech is able to serve people who have not been served by the financial industry (banking) to remote villages/villages.
- f. The existence of regulators and legal umbrella as a form of support from the government in the development of Sharia fintech in the country.
- g. The covid 19 Pandemic, which is viewed from the other side, is able to accelerate the process of Fintech development in the country and help the recovery of the economic sector which is inadvertently seen as safer due to lack of direct contact so as to minimize the spread of the covid-19 virus.

## CONCLUSION

The development of Information Technology in the economic sector has a significant impact and brings great benefits to various circles of society, both entrepreneurs and consumers. However, behind these advances, there are a number of problems in the world of e-commerce, such as incompatibility between goods ordered and received, the potential for fraud, and the need for better management and protection of personal data. Therefore, it is important to find a solution that can protect all parties involved, both sellers and consumers, so that e-commerce transactions can take place safely and in accordance with the rights and obligations of each party.

Furthermore, in the Sharia fintech industry, there are six types of contracts used, namely al-bai, ijarah, musyarakah, mudharabah, wakalah bil ujah, and qardh. However, despite the huge potential possessed, Sharia fintech in Indonesia still faces various challenges. The growth of sharia-based fintech is still a minority, and some of the problems that need to be addressed include differences in licensing between Sharia and conventional fintech, lack of public understanding of Sharia fintech, and negative stigma that develops in the community who still think that Sharia fintech is not much different from conventional fintech.

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