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Financial Technology And Sharia Compliance Regulations In Islamic Banking In Indonesia

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Abstract

Purpose - Analyze the FinTech phenomenon and compliance with sharia regulations in Islamic banking in Indonesia. Use of research as information for regulators, Islamic banking, and other stakeholders in compiling compliance regulations as an element of supervision and optimal strategy to improve the quality of FinTech in Indonesian Islamic banking.

Method - This research is a qualitative case study with literature studies related to the phenomenon of Sharia FinTech and Islamic regulations in Islamic banking in Indonesia.

Result - The results of Yudaruddin's research (2022) stated that the better the economic conditions, the higher the potential for FinTech growth. Meanwhile, the results of Muryanto's research (2022) stated that apart from focusing on FinTech, Islamic banking is also required to maintain compliance with regulations, sharia principles, operational standards for sharia FinTech governance, and the Sharia Supervisory Board.

Implication - With the existence of technology and the digital world, it will make easier life for human activities which can be accessed through any telecommunication media, anywhere, easy to use, and speeds up the process (Yudaruddin, 2022) .

Originality - This study looks directly at the FinTech phenomenon and compliance with sharia regulations in Islamic Banking in Indonesia which will be able to make good corporate governance of Indonesia Islamic Banking. Considering that there are not too many study at FinTech and sharia compliance in Indonesia Islamic Banks.

Keywords: Financial Technology, Sharia Compliance, Islamic Banking, Governance.

Introduction

In order to help with daily activities, humans are always innovating and exploring their creativity to create an appropriate technology that has added value (Yudaruddin, 2022) . As a result, technology has had a major impact and changed people's lifestyles in all economic, social, political, cultural and scientific activities. Examples of advances in information technology that have resulted in changes in society are e-government , e-business and e-commerce , e-banking , e-libraries , virtual education, and other information systems (Vahdati & Yasini, 2015) .

One of the outputs from the digital world is financial technology (FinTech) which facilitates the digital economy in the 21st century (Yudaruddin, 2022) . FinTech or Financial Technology is a new innovation in the financial industry that combines all technology in the financial sector to facilitate trade, business or interaction and services provided to users (Yudaruddin, 2022) . The core concept of FinTech stems from implementing the Peer to Peer (P2P) concept used by Napster in 1999 to share music. Then FinTech first appeared in 2004 by Zopa, namely a financial institution in England engaged in money lending services. In 2008, BitCoin created by Satoshi Nakamoto first appeared as digital money for online transactions but is no longer allowed in Indonesia. Then came Apple Pay, Samsung Pay, and PayPall. In fact, there are many types of companies implementing FinTech, such as: manufacturing companies (Apple Pay and Samsung Pay), provider and telecommunication companies (T-Cash, Dompet Indosat, XL Tunai, etc.), operating system companies (Android Pay), banking (Dompetku etc) and others.

FinTech users continue to increase globally from 16% in 2015 to 64% in 2019 (Yudaruddin, 2022) . Yudaruddin (2022) adds investment data on FinTech from US$930 million in 2008 to US$57 billion in 2018. According to Darmansyah et al. (2020) , the reason for the high public interest in FinTech is that bank efficiency occurs through reduced opportunity costs , there is an increase in the number of people connected to cellular networks, and also people can take advantage of financial services anytime and anywhere as long as they are connected to the internet thereby increasing people's satisfaction. . Therefore, it can be concluded that FinTech is able to reduce risk and increase accessibility, flexibility, and transparency.

The development of FinTech can also be felt in Islamic finance through Islamic FinTech or Sharia FinTech which continues to gain interest from Muslims and non-Muslims globally (Darmansyah et al., 2020 ; Muryanto, 2022) . Sharia FinTech develops while taking into account the main characteristics of the Islamic economy, namely being halal; aims for social welfare; maintaining a balance between material needs and spiritual needs; and free from usury, uncertainty (gharar), and gambling (maysir) (Muryanto, 2022) . Sharia fintech has been applied in Islamic banking, Islamic capital markets, the non-bank financial industry, Islamic social finance, Islamic microfinance, and the halal industry (Muryanto, 2022) . With the support of a large Muslim population, high compliance with sharia regulations, and the emergence of massive digital transformation, this has resulted in increased positive developments in the sharia economy, especially sharia finance globally (Muryanto, 2022 ; Yudaruddin, 2022) . Darmansyah et al. (2020) added that FinTech in Islamic finance is expected to become an important part of the global financial sector and be able to make a significant contribution to the growth of Islamic finance in particular.

In Indonesia, FinTech is growing rapidly due to the increasing number of internet and smartphone users (Yudaruddin, 2022) . Therefore, Indonesia is included in the top five countries on the Global Islamic FinTech Index (GIFT) as one of the most conducive countries for the development of the Sharia FinTech ecosystem (Muryanto, 2022) . The development of FinTech in Indonesia is increasingly seen by foreign investors as a country with great digital economic potential due to the rapid development of FinTech in Indonesia (Darmansyah et al., 2020 ; Yudaruddin, 2022) . This is proven by Indonesia as the owner of the most startups in the world, namely 31 out of 93 startups registered with the Islamic FinTech Association and around 167 FinTechs with an investment of US $ 182.3 million in Indonesia (Darmansyah et al., 2020 ; Yudaruddin, 2022) .

The growth of Sharia FinTech in Indonesia has also experienced a significant increase because Indonesia is the largest market share in Southeast Asia which has resulted in many Indonesian people needing Sharia FinTech (Muryanto, 2022 ; Yudaruddin, 2022) . Muryanto (2022) provides several examples of Sharia FinTechs that are developing in Indonesia such as Peer to Peer (P2P) Lending , Aggregators, Project Financing, Insurtech, Funding Agents and Financing Agents. Based on the research results of Muryanto (2022) and Yudaruddin (2022) it can be seen that the volume of Sharia FinTech transactions in Indonesia in 2020 reached $2.9 billion and is the fifth largest transaction volume in the world after Saudi Arabia $17.9 billion, Iran $9.2 billion , United Arab Emirates $3.7 billion, and Malaysia $3.0 billion of the $49 billion total volume of Islamic Fintech transactions in the world. The volume of Sharia Fintech transactions in 2025 is projected to reach $8.3 billion in Indonesia and $128 billion globally (Muryanto, 2022) .

To support the quality of Sharia Fintech, compliance with Sharia regulations and principles is required (Islamic Financial Services Board (IFSB), 2015) . Sharia compliance is part of the risk management framework in realizing the values of integrity and credibility as required in the Islamic banking system (Muryanto, 2022) . Muryanto (2022) recommends that Sharia FinTech comply with and be supported by sharia regulations and policies to accelerate the development of Sharia Fintech and as a basic element that makes it Islamic. FinTech in Indonesia has been regulated by Bank Indonesia in Bank Indonesia Regulation (PBI) No. 18/40/PBI/2016 concerning Payment Transaction Process Operators, Law no. 11 of 2008 concerning Information and Electronic Transactions, and Law no. 3 of 2011 concerning Fund Transfers. This license from Bank Indonesia was issued to new payment system service providers that were not regulated in the previous law, namely to: switching providers, payment gateway providers, and electronic wallet providers. To increase the reliability and competitiveness of the industry in the national payment system, these regulations also regulate the ownership structure, namely Payment System Service Providers (PJSP) and Payment System Supporting Providers.

Literature Review

Financial Technology (FinTech)

According to Micu & Micu (2016) , FinTech is a new service innovation in finance dedicated to financial companies in business operational activities or to business customers. Alt & Puschmann (2012) divides FinTech into the financial sector (banking, investment, insurance, etc.), the business processes handled (payments, investments, trade, infrastructure, etc.), customer segments (retail or corporate) or by form of interaction (B2B, B2C or C2C). However, the broader FinTech approach can be classified into two main categories, namely FinTech dedicated to the operations of financial service providers and FinTech dedicated to the interaction of financial service providers with clients.

Meanwhile, Sharia FinTech is the use of technology in financial service systems in banks and non-banks to make it more efficient by applying Sharia principles (Muryanto, 2022) . The basic principles of Sharia FinTech are in line with the basic principles of Islamic economics, namely based on sharia values which consist of rules and commands in the Qur'an and Hadith (Muryanto, 2022) . Muryanto (2022) argues that Sharia FinTech is a form of digital transformation in the Islamic economy by utilizing technology to increase organizational achievement or performance. Added by Muryanto (2022) that the impact of digital transformation is that there is a process of reforming social patterns, patterns of information and communication, and the creation of new socio-economics. Muryanto (2022) classifies FinTech Syariah into social finance, insurance, wealth management, finance, and deposits and loans. In order to create Sharia FinTech that complies with Islamic values, the Sharia FinTech platform uses Artificial Intelligence (AI), blockchain, big data, cloud , and Internet of Things (IoT) devices to make it more transparent, sophisticated, and able to achieve financial, social, environment, and economy (Muryanto, 2022) .

Sharia Compliance

There is a conceptual and practical relationship between the financial services business and compliance with sharia principles that substantially differentiate between the sharia financial system and the conventional financial system (Muryanto, 2022) . The goal of compliance with sharia principles is to achieve a comprehensive application of Islamic values (kaffah) in daily life including in carrying out sharia economic activities (Muryanto, 2022) . Muryanto (2022) states that sharia principles require that every business operation and all transactions in islamic banking must comply with sharia values that are free from elements of usury, gharar and maysir . Therefore, compliance with Islamic regulations must always be maintained in every activity of Islamic financial institutions and their products because compliance with Islamic regulations reflects the character of Islamic financial institutions (Muryanto, 2022) . Muryanto (2022) states that if Islamic banking fails to comply with sharia regulations, it will risk the reputation of Islamic banking and customers will lose confidence in Islamic banking to then withdraw funds and cancel contracts. Based on the results of Muryanto's research (2022) , there are several qualitative assessment indicators of compliance with sharia regulations in Islamic financial institutions, including: contracts for raising and distributing funds in accordance with sharia principles; all economic activities and their transactions are reported according to and fairly according to sharia accounting standards; culture and work environment must comply with sharia principles; businesses financed by islamic banking do not conflict with sharia principles and regulations; the source of funds originates from legal and halal finance based on sharia principles; and there is a Sharia Supervisory Board to oversee and guide all operational activities so that they comply with sharia regulations and principles.

Planned Behavior Theory

The theory of Planned Behavior has been shown to be able to efficiently explain intentions, predict behavior, and control perceived behavior

(Darmansyah et al., 2020) . So, this theory can be used as a basis for a belief perspective that can influence someone to take specific actions. Intention or intention is the initial process that forms the decision to behave in a way that is desired consciously or not (Corsini, 1999) . Theory of Planned Behavior is suitable for describing behaviors that require planning (Ajzen, 1991) .

The Theory of Planned Behavior is a theoretical enhancement of the Reasoned Action Theory (Darmansyah et al., 2020) . Theory of Reasoned Action states that the intention to carry out an act is caused by two reasons, namely subjective norms and attitudes towards behavior (Fishbein & Ajzen, 1977) . Ajzen (1988) then added one factor to the theory, namely individual perceived behavioral control or Perceived Behavioral Control. It is the existence of these factors that transforms the Theory of Reasoned Action into the Theory of Planned Behavior. By considering the control factors for behavior, it is expected to be able to moderate the effect of intention on behavior (Darmansyah et al., 2020) .

Theory of Planned Behavior states that attitude toward behavior is an important basis that can predict the intention of an action, but it is still necessary to consider attitudes and subjective norms and measure one's perceived behavioral control (Ajzen, 1991) . Perceived behavioral control is influenced by assumptions or experiences about the existence of difficulties in doing or not doing certain actions (Ajzen, 1991) . If there is a positive attitude that is supported by the people around and also there is a perception of ease because there are no obstacles to behaving, then one's intention to do so will be even higher (Ajzen, 2005) . Therefore, there are three considerations that can control human behavior, namely attitudes, normative beliefs, and controlling beliefs (Darmansyah et al., 2020) .

The theory of Planned Behavior is in line with the intentions of Indonesian Islamic banking compliance with Islamic regulations and adopting FinTech which requires pressure and opportunity to generate intentions that result in rationalization. Therefore, this study uses the Theory of Planned Behavior to find out the planned intentions of Indonesian Islamic banking on FinTech and compliance with Islamic regulations.

Perceived Behavioral Theory

In Planned Behavior Theory assumes that Perceived Behavioral Control has motivational implications for intentions. Someone who believes that they do not have data sources or opportunities to perform certain behaviors may not raise a strong intention to do so even though they have a positive attitude towards their behavior and believe that others will approve if they do that behavior (Fishbein & Ajzen, 1977) .

Perceived Behavioral Control is defined as the perceived ease or difficulty of behaving (Ajzen, 1991) . Therefore, the Perceptual Behavior Control in this study is to reflect whether the existence of FinTech and compliance with sharia regulations have an impact as an ease or difficulty in the development of Islamic banking in Indonesia.

Methods

This research is a qualitative research. According to Chariri (2009) , qualitative research is research that aims to investigate natural life so that it is easier to understand events and generate new assumptions. This research focuses on case studies by analyzing the FinTech phenomenon and sharia compliance in Islamic banking in Indonesia. According to Merriam & Tisdell (2016) , a case study is an approach in qualitative research that is oriented towards certain complex real events but focuses on a single unit through in-depth description and analysis. In qualitative research, the case study approach collects data through interviews, documents, reports, and observations (Merriam & Tisdell, 2016) . The data collection method in this study uses literature studies related to the phenomenon of Sharia FinTech and Islamic regulations in Islamic banking in Indonesia. The results of the literature study will analyze the phenomenon of Sharia FinTech and Sharia compliance regulations in Islamic banking to obtain research results. Methods of data analysis in qualitative research with case studies based on Merriam & Tisdell (2016) are: (1) Collecting data and information relevant to research objectives through literature studies related to the phenomenon of Sharia FinTech and compliance with Islamic regulations in Islamic banking in Indonesia; (2)

Reducing data by selecting important information and focusing on research objectives; (3) Presenting data with an interpretive method; and (4) Collecting data and analysis conducted to seek meaning for experiences related to the phenomenon of Sharia FinTech and compliance with Islamic regulations in Islamic banking in Indonesia in the research process, identifying the limitations of the research, and the impact that is expected to be obtained from the research. Thus the results of the analysis can be used as evaluation material for the stability of Sharia FinTech and compliance with Islamic regulations in Islamic banking in Indonesia.

Results and Discussion

Because Indonesia has a large population, it influences people's needs and lifestyles for halal products and services that are in accordance with Islamic principles (Muryanto, 2022) . Added by Muryanto (2022) that apart from the community, Indonesian and global business actors also need sharia financial products and services as the main alternative in their business because of the convenience and convenience compared to conventional financial services. The rapid development of Islamic banking in Indonesia resulted in the total assets of Islamic financial institutions reaching US$86 billion, US$99 billion and US$127.71 billion in 2018, 2019 and 2020 (Financial Services Authority, 2020) . This phenomenon is explained by Yudaruddin (2022) with the Consumer Theory from Aaker & Keller (1990) that the presence of new services that are able to meet the demands of community needs will have the potential to replace old services.

Sharia FinTech is not only a product of Islamic banking, but the non-bank financial industry is also involved in Islamic FinTech such as Islamic P2P lending, Islamic digital payments, Islamic crowdfunding, Islamic capital market, Islamic financing, Islamic insurance, and so on (Muryanto, 2022) . One of the developing Sharia Fintech in Indonesia is Sharia P2P Lending. Muryanto (2022) states that Sharia P2P Lending is an alternative financing for the public and business actors who are saturated with the conventional system. In Indonesia there are seven sharia Fintech lending providers as of January 2022 with total assets reaching IDR 69.47 billion and total liabilities of IDR 42.15 billion (Financial Services Authority, 2022) . In January 2022, both conventional P2P lending and sharia P2P lending channeled IDR 13,782.49 billion to their customers. Of this figure, productive sector credit reached 61.21% or around IDR 8,436.78 billion. Outstanding funding was recorded at IDR 31,141.29 billion with a 90-day Payment Success Rate of 97.48% (Financial Services Authority, 2022) . In line with Muryanto's research (2022) , Yudaruddin (2022) stated that Fintech startups that collaborate with Islamic banks have a positive impact because they are able to improve the performance of Islamic banks in normal or crisis conditions, especially in P2P Lending. The results of Yudaruddin's research (2022) further strengthen the statement that the better the economic conditions of a country, the higher the potential for FinTech growth. Therefore, the results of Yudaruddin's research (2022) further emphasize that FinTech has a tendency to be more vulnerable in conditions of crisis and instability.

FinTech not only has a positive impact, but also brings disruptive innovations that have the potential to disrupt innovation (Yudaruddin, 2022) . This phenomenon explained by Yudaruddin (2022) can be experienced by Islamic and conventional banking because there are more and more FinTech startups that can act as substitutes or complementary for the banking sector. Yudaruddin (2022) adds that the technology adopted by Islamic banking is different from conventional banking due to the high operational costs of sharia advisors, auditors, and the specificity of bank products. Therefore, Islamic banking needs to adapt and innovate in a responsive manner in responding to the impact of FinTech (Yudaruddin, 2022) .

To maintain long-term stability, apart from focusing on FinTech, islamic banking is also required to maintain compliance with sharia regulations and principles (Muryanto, 2022) . Sharia compliance acts as a customer protection tool in enjoying Islamic financial services and also guides investors in investing in the Islamic capital market to avoid disputes over moral hazard violations, misuse of funds, and misleading claims on sharia compliance (Muryanto, 2022) .

Table 1. The Urgency of Sharia Regulatory Compliance in Sharia FinTech

Legal Substance	Legal Reasons
Types of Sharia FinTech and Permitted Business Operations	It is necessary to identify FinTechs that comply with Islamic law and principles in order to avoid usury , maysir and gharar .
Institutions Authorized to Regulate and Supervise Sharia FinTech	It is necessary to map the roles of BI, OJK and the Ministry of Religion so that they coordinate with each other to maintain the stability of Islamic financial services.
Sharia FinTech Organizer Requirements and Licensing	Halal certification, MUI fatwa, and Islamic finance provider qualifications are required.
Regulatory Sandbox and Sharia Governance	The purpose of the regulatory sandbox is to analyze the reliability of business processes, financial instruments and governance in accordance with sharia principles and regulations. Meanwhile, sharia governance is needed to ensure stability, compliance with sharia regulations, and protection of investors and customers.
Sharia Contract Standards	Sharia contract principles and standards are required to comply with Islamic values.
Sharia Supervisory Board	The function of the Sharia Supervisory Board is to oversee and guide the operation of the Sharia FinTech business so that it conforms to sharia principles and regulations. Therefore, a Sharia Supervisory Board that is competent in Islamic economics is needed.
Sharia Dispute Resolution	A sharia dispute resolution mechanism is required.

Even though technology has been used in financial services according to sharia principles, in practice there are still many deficiencies in terms of supervision and regulation of sharia compliance (Muryanto, 2022) . Therefore, Muryanto (2022) assesses the need for regulations, operational standards for sharia FinTech governance, and the Sharia Supervisory Board to improve the quality of the Sharia FinTech ecosystem in Islamic banking in Indonesia. To truly ensure that Sharia FinTech complies with sharia regulations, sharia regulations must cover sharia governance, sharia standards on financial transaction contracts, and the qualifications of the Sharia Supervisory Board (Muryanto, 2022) . The following is a list of technical regulations on Sharia FinTech operations in Indonesia (Muryanto, 2022) in Table 2.

Table 2. Sharia FinTech Regulations in Indonesia

Bank Indonesia Regulation (PBI)	Financial Services Authority Regulation (POJK)	MUI fatwa
PBI No. 21/5/PBI/2019 concerning Organizers of Transaction Facilities in the Money Market and Foreign Exchange Market	POJK No. 77/POJK.01/2016 concerning Information Technology-Based Money Lending Services	MUI Fatwa No. 117/DSNMUI/II/2018 concerning Information Technology-Based Financing Services Based on Sharia Principles
PBI No. 22/9/PBI/2020 concerning the Interbank Money Market Based on Sharia Principles	POJK No. 13/POJK.02/2018 concerning Digital Financial Innovation in the Financial Services Sector	MUI Fatwa No. 116/ DSN-MUI/IX/2017 concerning Sharia Electronic Money
PBI No. 23/6/PBI/2021 concerning Payment Service Providers	POJK No. 47/POJK.05/2020 Concerning Business and Institutional Licensing of Financing Companies and Sharia Financing Companies	
PBI No. 23/7/PBI/2021 concerning Payment System Infrastructure Providers	POJK No. 57/POJK.04/2020 concerning Securities Offerings Through Information Technology-Based Crowdfunding Services as per the latest regulation POJK No.16/POJK.04/2021	

To ensure that islamic banking complies with sharia regulations and principles, Muryanto (2022) suggests forming a Sharia Supervisory Board as an independent institution authorized to oversee Sharia FinTech operations for sharia compliance. Muryanto (2022) stated the position of the Sharia Supervisory Board must be strengthened by sharia regulations and as an integral part of sharia compliance. Muryanto (2022) has detailed the responsibilities of the Sharia Supervisory Board, including: (1) Provide advice to directors, commissioners, leaders and heads of Sharia FinTech branch offices regarding relevant sharia information; (2) Actively and passively monitor sharia compliance, including fostering Sharia FinTech products or services so that they comply with sharia regulations and principles; (3)

Become a mediator between Sharia FinTech organizations and BI and OJK regarding advice on developing and evaluating Sharia FinTech products and services; and (4) Report the development and operations of the Sharia FinTech business to BI and OJK. The Sharia Supervisory Board in carrying out its responsibilities requires a mechanism and standard for measuring the level of sharia compliance which includes: sharia review; internal sharia review; sharia financial audit committee; statement of governance principles of sharia financial institutions; Sharia Supervisory Board (independence, appointment, composition and reporting); and CSR disclosure of Islamic financial institutions (Muryanto, 2022).

Conclusion

This research is expected to provide a new perspective for regulators and management of Islamic banking in improving the quality of FinTech and compliance with Islamic regulations in Indonesian Islamic banking. Therefore, stakeholders must be able to identify the factors that most influence the intention to use FinTech and comply with sharia regulations in Indonesian islamic banking. In order for Sharia FinTech to comply with sharia principles, standardization of sharia governance, sharia compliance regulations, and a Sharia Supervisory Board is required (Muryanto, 2022) . In addition, regulators must be able to formulate policies or regulations that can be applied by Indonesian Islamic banking and remain in accordance with the needs of Indonesian Islamic banking customers (Yudaruddin, 2022) . Indonesian Islamic banking and regulators should focus on empowering and developing technology to compare prices with the value offered to potential Sharia P2P FinTech users (Darmansyah et al., 2020) . In line with the results of Yudaruddin's research (2022) that Islamic banking needs to adopt the latest financial technology and collaborate with Sharia FinTech startups. With the high quality of the Indonesian Islamic banking FinTech system, it is hoped that it will be able to increase the intention to adopt Islamic FinTech and comply with Islamic banking regulations in Indonesia.

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