



Jurnal Masharif al-Syariah: Jurnal Ekonomi dan Perbankan Syariah
ISSN: 2527 - 6344 (Printed), ISSN: 2580 - 5800 (Online)
Accredited No. 204/E/KPT/2022
DOI: <https://doi.org/10.30651/jms.v10i3.26920>
Volume 10, No. 3, 2025 (2124-2140)

THE ROLE OF DIGITAL TECHNOLOGY IN DRIVING THE GROWTH OF HALAL FINTECH

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Abstract

This study explores the role of digital technology in driving the growth of the halal fintech sector, which is growing along with the increasing demand for sharia-compliant financial services. Digital technologies, especially blockchain, artificial intelligence (AI), and big data, enable halal fintech to provide more transparent, efficient, and inclusive services. The adoption of digital technology in the sharia financial sector increases accessibility and convenience for consumers, and supports the creation of a more sustainable financial ecosystem (Zohra et al., 2021). By leveraging digital platforms, halal fintechs are not only strengthening their business foundations but also playing a vital role in expanding financial inclusion in countries with Muslim-majority populations. This study provides insights into how digital transformation can catalyze the growth of the halal fintech sector, while addressing the challenges faced by the industry in ensuring compliance with sharia principles.

Keywords: technology, digital, halal, finance

Introduction

Along with the advancement of digital technology, the global financial sector is undergoing significant transformation, including the fintech sector. Fintech, which is a combination of "financial technology," has had a profound impact on the way financial services are delivered, including in the Islamic finance or halal fintech industry. Halal fintech refers to digital financial platforms or services that adhere to sharia principles, such as the prohibition of *riba*, *gharar*, and *maysir* (Harbi, 2020). In a world that is increasingly connected through digital technology, it is important to understand how technology can play a role in accelerating the growth of this sector, given that more consumers are seeking financial products and services that are in line with their religious values (Liu & Khamis, 2021).

The growth of the halal fintech sector is influenced by two main factors: the increasing global Muslim population who crave sharia-compliant financial products, and the development of technology that facilitates easier, faster, and safer transactions. The halal fintech industry has the potential to be a highly developed sector, with various digital technologies such as blockchain, big data, and artificial intelligence (AI) that can improve services and transparency in transactions (Azam et al., 2019). This allows consumers to more easily access Sharia-compliant financial services, which were previously limited by regulatory and geographical challenges.

However, despite this great potential, the halal fintech sector still faces a number of challenges. One of them is the lack of a deep understanding of how technology can be integrated with Sharia principles without compromising its integrity (Ameer & Mahmud, 2020). Technologies such as blockchain can bring about major changes in creating a more transparent and efficient system, but they also need to be maintained to remain compliant with Islamic law. Therefore, it is important to understand how digital technology can accelerate the growth of halal fintech, while paying attention to its compliance with the Sharia principles that underlie the sector.

In addition, digitalization has enabled various innovations in the halal fintech sector, including halal investment products, profit-sharing loans, and fully transparent payment services. Digital technology not only increases efficiency in the provision of financial services but also strengthens consumer trust in the Islamic financial system (Sulaiman and Ismail, 2020). The presence of adequate technological systems helps ensure that financial transactions are conducted fairly and in accordance with Sharia principles, which in turn contributes to the growth of the sector.

Halal fintech also plays a vital role in supporting financial inclusion in developing countries, especially in Muslim-majority countries. In many of these countries, conventional banks often do not offer financial services that comply with Islamic law, creating an urgent need for fintech platforms that can provide such services (Hamzah et al., 2021). Digital technology enables access to financial services for individuals previously excluded from the traditional financial system, by offering more affordable and easily accessible solutions through digital devices such as smartphones.

On the other hand, regulators and policymakers have also begun to pay attention to the importance of supporting the growth of halal fintech. Governments and financial institutions in various countries, especially Muslim-majority countries such as Indonesia, Malaysia, and Saudi Arabia, have begun to introduce policies and initiatives to encourage the development of the halal fintech sector. For example, the Indonesian Financial Services Authority (OJK) has issued regulations that support the development of sharia-

based fintech to increase sharia financial inclusion in the country (Lestari, 2020). With strong policy support, the halal fintech sector has a great opportunity to grow rapidly. However, this rapid digital transformation also poses new challenges related to data privacy and technology reliability. The use of digital technology in the financial sector requires better protection of personal data, ensuring that consumers feel safe and protected when using digital financial services. Data privacy and security issues are one of the main challenges in implementing fintech in the sharia financial sector (Abdullah et al., 2019). Therefore, it is important to formulate policies that can maintain data security without sacrificing ease of access to services.

One example of technology that is currently widely used in the development of halal fintech is blockchain. This technology offers the advantages of transparency and security in recording transactions, which is very relevant to sharia principles that emphasize fairness and transparency in financial transactions (Saleh & Hassan, 2021). By utilizing blockchain, halal fintech service providers can ensure that every transaction is recorded transparently and cannot be changed, which increases consumer trust and attracts more users to the platform.

This study aims to explore in more depth how digital technology can drive the growth of halal fintech and strengthen this industry while still paying attention to compliance with sharia principles. In addition, this study also wants to contribute to the existing literature by identifying how technology can provide solutions to the challenges faced by the halal fintech sector in its application in an increasingly digital world. This study is expected to be a reference for fintech entrepreneurs, regulators, and policy makers in designing policies that support digital transformation in the sharia financial sector.

Literature Review

Technology

Digital technology has become a major driver in the development of the fintech sector globally, including in the halal fintech industry. This technology includes various innovations, such as blockchain, big data, artificial intelligence (AI), and the Internet of Things (IoT), which enable faster, safer, and more transparent financial services. The use of digital technology in the fintech sector not only improves operational efficiency but also changes the way consumers interact with financial products (Sulaiman et al., 2020). This technology facilitates the transaction process and data management, and opens wider access for consumers to obtain financial services that comply with sharia principles.

Blockchain, as one of the most relevant technologies in the development of halal fintech, offers transparency and security that are very important in ensuring compliance with sharia principles. Blockchain allows for immutable and publicly distributed transaction recording, thereby increasing consumer trust in financial services. In addition, this technology also supports sharia principles that prioritize fairness and transparency in financial transactions (Saleh & Hassan, 2021). This technology also makes it possible to reduce transaction costs, because the verification and data storage processes can be carried out automatically through decentralized algorithms.

Big data also plays an important role in increasing the operational efficiency of halal fintech. By leveraging big data analytics, fintech companies can gain deeper insights into consumer behavior, market trends, and the risks involved in each transaction. Big data technology enables fintech companies to offer products that better suit consumer needs, while minimizing risks associated with investment and lending decisions (Liu & Khamis, 2021). In the context of halal fintech, big data helps ensure that the products and services offered are truly in accordance with sharia provisions, thereby minimizing the possibility of violating Islamic law.

In addition, artificial intelligence (AI) plays a vital role in accelerating the analysis and decision-making process in the halal fintech sector. AI can be used to identify consumer behavior patterns, manage investment portfolios, and verify transactions in real-time. AI can help improve the customer experience by offering more personalized and relevant solutions according to individual needs (Hamzah et al., 2021). This technology can also be used to improve security systems, such as through risk analysis or fraud detection, which are critical in the Islamic finance sector that prioritizes fairness and transparency. One of the challenges in implementing digital technology in the halal fintech sector is maintaining a balance between innovation and compliance with sharia principles. Rapidly developing digital technology provides a great opportunity for this industry to expand its scope, but also demands stricter regulations to ensure that the products and services offered comply with Islamic law. Regulatory involvement is essential in creating policies that support the growth of the halal fintech sector, while ensuring that the technology implemented does not violate sharia principles (Zohra & Rahman, 2020).

With the continuous development of digital technology, the halal fintech sector is increasingly open to gain wider access and provide a greater impact on financial inclusion. In this context, technology serves as a bridge connecting various stakeholders, from financial institutions, regulators, to consumers, in creating a more inclusive and equitable financial system. This is very relevant to the goal of the halal fintech sector to

provide financial services that are in accordance with Islamic values, which can ultimately contribute to sustainable economic growth (Azam et al., 2019).

Digital

Digitalization has become a key element in the transformation of various industrial sectors, including the financial sector. In the context of fintech, digitalization brings major innovations that enable transaction efficiency, service accessibility, and better risk management. Digitalization refers to the use of digital technology to replace manual or traditional processes with technology-based solutions, which directly increase productivity and improve user experience (Sharma & Verma, 2020). This is no exception in the halal fintech sector, where digital technology plays an important role in democratizing access to finance that is in accordance with sharia principles.

One of the main aspects of digitalization in halal fintech is the implementation of blockchain technology. Blockchain enables transparency in financial transactions, which is very important in an industry that upholds sharia principles such as fairness and transparency. This technology allows for secure, transparent, and unmodified transaction recording, which reduces the potential for fraud or unfairness in transactions (Saleh & Hassan, 2021). In addition, blockchain can also speed up the transaction verification process and minimize operational costs, making it increasingly relevant in sharia-based financial services.

In addition to blockchain, other digital technologies that play a major role in the development of halal fintech are artificial intelligence (AI) and machine learning. AI is used in halal fintech to perform big data analysis, recognize patterns in transactions, and provide product or service recommendations that suit individual needs (Ahmed et al., 2021). AI is also used to detect potential risks or fraud, which is very important in maintaining integrity and compliance with sharia principles. The use of AI further strengthens halal fintech's position as a sector that can provide safer and more efficient financial solutions for Muslim consumers.

In addition, the use of digital technology enables wider financial inclusion, especially for communities that were previously marginalized from the conventional financial system. With the existence of a digital-based halal fintech platform, individuals and small businesses that previously did not have access to formal financial services can now enjoy the benefits of financial products and services that comply with Islamic law. This can strengthen the digital economy, especially in developing countries with large Muslim populations, where the need for sharia-based financial services is very high (Zohra & Rahman, 2020).

The importance of digitalization in halal fintech is also reflected in its ability to increase the speed and convenience of transactions. Halal fintech platforms allow consumers to make transactions directly from their devices, without having to visit a bank or physical financial institution. This not only saves time and costs, but also makes it easier for consumers to access products and services that suit their personal preferences. With this ease and convenience, digitalization is a major driver in accelerating the adoption of halal fintech worldwide (Liu & Khamis, 2021).

However, although digital technology offers various benefits, challenges related to regulation and compliance with Islamic law remain. Regulators need to ensure that the technology used in the halal fintech sector complies with sharia principles, such as the prohibition of usury and uncertainty (gharar). Therefore, collaboration between regulators, fintech companies, and consumers is essential to ensure that digitalization in halal fintech can run in accordance with its main objective, namely providing fair financial services that are in accordance with Islamic values (Sulaiman et al., 2020).

Halal

In the context of fintech, the term “halal” refers to financial principles that are in accordance with Islamic law, as regulated by Sharia. Sharia sets strict rules regarding the prohibition of transactions involving *riba* (interest), *gharar* (uncertainty), and *maysir* (gambling), all of which can be considered inconsistent with Islamic values. The principle of halal in the financial sector focuses on ensuring that the products and services offered do not violate these norms and create a fair and transparent system for all parties involved (Ali, 2020). In this case, halal fintech is an innovation that aims to provide financial solutions that are in accordance with these values through the use of modern technology. One of the main aspects of halal fintech is the existence of a strict monitoring system related to the compliance of products with Sharia principles. In this case, digital technologies such as blockchain have great potential to ensure transparency in every transaction made. Blockchain provides an immutable and open record of transactions for all parties involved, which can increase the level of trust and reduce the potential for fraud in the products or services offered. This technology also allows real-time verification that transactions made do not violate sharia principles (Sulaiman et al., 2021).

On the other hand, halal fintech also plays an important role in encouraging financial inclusion for Muslim communities who need financial services that are in accordance with Islamic principles. Halal fintech services provide opportunities for individuals who were previously marginalized from the conventional banking system to gain access to products and services that suit their financial needs without violating sharia principles (Huda et al., 2021). Therefore, halal fintech not only provides benefits from a business perspective but

also contributes to the economic empowerment of Muslim communities, which in turn can strengthen their competitiveness in the global economy.

With the increasing development of digital technology, halal fintech is also increasingly diverse in terms of the services offered. For example, sharia-based peer-to-peer (P2P) lending applications, which use technology to connect borrowers and lenders without involving conventional financial institutions, have shown great potential in providing financial access for small businesses and individuals. This sharia-based P2P service ensures that all transactions are free from usury and are accepted by Islamic law (Imran & Zia, 2020). This shows that halal fintech can utilize technology to offer innovative solutions that are in accordance with the needs of modern consumers.

In addition, the development of halal fintech is not only limited to the lending sector, but also includes various other financial aspects, such as investment and insurance. Digital technology enables the creation of sharia investment platforms that can be accessed by anyone easily and safely. One example of innovation in this field is the use of robo-advisors to provide investment recommendations based on sharia principles. These robo-advisors use algorithms and AI to analyze investment portfolios and provide advice to consumers on choices that are in accordance with Islamic law, without involving prohibited elements such as usury or gharar (Zohra & Rahman, 2020).

Thus, digital technology has played a very important role in supporting the growth of halal fintech, which continues to grow and expand its service reach. The existence of digital technology in the halal fintech industry provides greater opportunities to create a more inclusive financial system that is in accordance with Islamic religious values, while increasing transparency, security, and efficiency in financial transactions. As a result, more consumers are adopting these services, increasing access to better and safer finance, and strengthening the Islamic financial sector as a whole (Zohra & Rahman, 2020).

Finance

Finance is a very important sector in the modern economy, with its main role in channeling funds from those who have a surplus to those who need funds. In the context of Islam, financial principles must be in accordance with the teachings of Sharia, which prohibit transactions based on *riba* (interest), *gharar* (uncertainty), and *maysir* (gambling). Therefore, Islamic or halal finance is the main focus in the financial industry in Muslim countries. Halal finance aims to provide instruments that comply with these principles, by ensuring that financial transactions are free from elements prohibited in Islam, and providing fairer, more transparent, and more responsible services (Ismail et al., 2020).

Digitalization in the Islamic financial sector is further strengthening its existence and accessibility, through the development of innovative technology-based products.

The development of digital technology has brought about major changes in the financial industry, with the emergence of fintech (financial technology) which offers internet-based financial solutions. Fintech provides a variety of financial services, including payments, loans, investments, and wealth management, which were previously difficult for most people to access. Islamic finance, which is often considered limited to conventional banks, now has the opportunity to develop rapidly thanks to the application of digital technology, which allows halal fintech products and services to be more easily accessible to the general public (Zohra & Rahman, 2020). Digital technology enables the provision of faster, more efficient, and safer services, and makes it easier for individuals and business actors to manage their financial transactions in accordance with sharia principles.

One example of technology that supports the development of halal finance is the use of blockchain, which can guarantee transparency and security in every transaction. Blockchain enables immutable and accountable records, so that every transaction in halal fintech services can be monitored and validated more effectively. This is very important to prevent misuse of the system that is contrary to sharia principles. Blockchain technology provides assurance that transactions that occur are truly in accordance with sharia standards, reducing the risk of fraud and creating a safer and more transparent financial system (Sulaiman et al., 2021).

The application of technology in sharia finance is also seen in the use of sharia-based peer-to-peer (P2P) lending platforms. P2P services allow individuals and business actors to provide loans to each other without the intermediary of traditional financial institutions. This provides more access to the community to obtain financing, especially for those who are not covered by the conventional banking system. Sharia-based P2P utilizes technology to ensure that there is no element of usury in loan transactions, and all activities are carried out based on the principles of fairness and transparency (Imran & Zia, 2020). This innovation helps expand financial inclusion, allowing people to participate more actively in the digital economic system.

In addition, digital technology also provides opportunities to develop sharia investment products, such as sukuk (sharia bonds) and sharia mutual funds, which were previously limited to certain market segments. Through digital investment platforms, individuals from all walks of life can invest in sharia products at lower costs and with easier access. The use of robo-advisors in sharia investment is an example of an innovation that allows investors to choose an investment portfolio that is in accordance with sharia principles

without the need for in-depth knowledge of the financial market. Robo-advisors use algorithms to suggest investment options that are halal and in accordance with the risk desired by investors (Huda et al., 2021).

Thus, digitalization in the Islamic financial sector not only facilitates access to products and services, but also plays a role in expanding financial inclusion and increasing public trust in halal products. Digital technology in the financial sector also encourages the creation of a more integrated and efficient financial ecosystem, facilitating the development of a more inclusive digital economy in accordance with Islamic values. This innovation is very relevant amidst the increasingly rapid development of technology and the increasing need for transparent, fair, and responsible financial services (Zohra & Rahman, 2020).

Research Methods

The research method in this article uses a qualitative approach with descriptive analysis to explore the role of digital technology in driving the growth of halal fintech. This research involves literature studies and in-depth interviews with practitioners in the halal fintech sector, as well as stakeholders in the Islamic finance industry. Data collection was carried out through semi-structured interviews and content analysis of articles, annual reports, and publications related to Islamic fintech. This study aims to understand how digital technologies such as blockchain, artificial intelligence (AI), and digital platforms contribute to the development and adoption of halal fintech products. Thus, this study will provide insight into the dynamics, opportunities, and challenges faced in the growing halal fintech sector (Al-Malkawi & Al-Mohammad, 2021).

Research Results and Discussion

Digital Technology Support for Halal Fintech

The results of the study indicate that digital technology plays a key role in accelerating the growth of the halal fintech sector. One of the main findings is that the adoption of technologies such as blockchain and artificial intelligence (AI) has increased transparency and efficiency in Islamic financial transactions, which directly supports consumer trust in halal fintech. Blockchain, as the underlying technology for cryptocurrency and smart contracts, provides assurance of security and reliability of transactions without involving third parties. In the context of halal fintech, this helps ensure that the products and services offered meet strict sharia standards (Abdul Rauf, 2020).

In addition, AI also plays a major role in personalizing financial services. With the ability to analyze big data and identify user behavior patterns, AI enables halal fintech service

providers to provide more targeted recommendations and products that suit individual needs. This is particularly relevant to expanding market reach and improving customer satisfaction. For example, several halal fintech platforms have implemented AI in their risk assessment processes, enhancing their ability to provide more inclusive financing to individuals or businesses previously excluded from conventional banking systems (Khan & Siddiqui, 2021).

The support of digital technology is also seen in the integration of faster and more efficient digital payment systems. For example, payment platforms such as QRIS (Quick Response Code Indonesian Standard) launched in Indonesia enable easy, fast, and cheap transactions, and comply with sharia principles. This makes it easier for consumers to make payments in a manner that is in accordance with Islamic values without involving interest (riba). In addition, easy access to sharia financial services through digital applications also provides opportunities for more individuals to participate in the halal financial ecosystem (Hassan & Abdullah, 2019).

Furthermore, digitalization also helps expand financial inclusion, especially in areas previously neglected by conventional financial institutions. Halal fintech, driven by digital technology, enables service providers to reach a wider market, including small and medium enterprises (SMEs) and communities that are not covered by conventional banks. Digital technology enables simpler and faster registration processes, reduces bureaucratic barriers, and enables many previously financially unbanked people to participate in a more inclusive financial system (Aziz & Zain, 2021).

However, the implementation of digital technology in the halal fintech sector is not without challenges. One of the main challenges faced is the issue of digital education and literacy. Many people, especially in rural areas, are not yet familiar with the use of digital technology in their daily lives. Therefore, it is important for halal fintech service providers to involve various parties, including the government and educational institutions, to increase understanding of the benefits and how to use digital technology in Islamic finance. For example, several halal fintech providers have launched training programs and seminars to educate the public about the use of digital technology that is safe and in accordance with sharia principles (Zulkifli & Johari, 2021).

In addition, it is important to highlight the potential security and privacy risks faced by users of halal fintech services. Digital technology, although it offers convenience, also opens the door to greater potential cyber threats, such as data theft and online fraud. Therefore, halal fintech service providers must prioritize strengthening security systems and protecting customer data. These efforts include the introduction of stronger authentication systems and the use of encryption technology to protect users'

transactions and personal data. This security is a very important aspect to build consumer trust and ensure the sustainable growth of the halal fintech sector (Ahmed & Hussain, 2021).

Equally important is the collaboration between fintech service providers, regulators, and traditional financial institutions in creating a safe ecosystem that supports the growth of halal fintech. This study found that closer collaboration between the technology and financial sectors can encourage further innovation and create new opportunities for the growth of halal fintech. Several countries have developed regulations that are more friendly to innovation, including support for the adoption of technologies such as blockchain in the financial sector. For example, regulators in Malaysia and Indonesia have implemented policies that allow the use of digital technology in the Islamic financial system, which provides a stronger foundation for the development of halal fintech (Wahab & Ali, 2020).

The Development of Halal Fintech in the Digital Era

The results of the study show that the development of halal fintech in the digital era has made significant progress in recent years. One of the main factors driving this growth is the increasing adoption of digital technology by Islamic financial institutions and fintech companies that provide financial services based on Islamic principles. Technologies such as blockchain, artificial intelligence (AI), and big data have changed the way halal fintech providers deliver products and services to consumers. The application of these technologies not only improves operational efficiency but also ensures that the financial products offered comply with sharia principles, thereby strengthening consumer trust in halal fintech (Abdullah, 2020).

In addition, the role of supportive regulations also contributes to the development of halal fintech. Several countries with large Muslim populations, such as Indonesia, Malaysia, and Saudi Arabia, have implemented policies that are more friendly to technology and sharia fintech. For example, Indonesia has launched several initiatives to integrate digital technology into the sharia banking system, which includes regulations that allow the issuance of digital-based halal fintech products. Regulators in Malaysia have also launched a licensing scheme for sharia fintech, making it easier for more fintech players to enter this market. With strong regulatory support, the halal fintech sector is able to grow faster and expand its market reach (Hassan & Yousuf, 2019).

Advances in digital technology, especially in terms of digital payment platforms, are also a major driver of halal fintech growth. Digital payment platforms such as QRIS (Quick Response Code Indonesian Standard) based on sharia make it easier for consumers to make transactions in a safe manner and in accordance with Islamic principles. This allows

for fast and cheap transactions without involving interest (riba) or elements prohibited in Islam, such as gharar (uncertainty). This kind of innovation makes it easy for users to access halal financial services anytime and anywhere, which of course contributes to increasing financial inclusion among Muslim communities (Aziz & Hussain, 2020).

In addition, the application of AI and machine learning technology in the halal fintech sector has also had a significant impact on service personalization. By utilizing big data analysis, halal fintech can understand user behavior patterns and provide recommendations that are more tailored to individual needs. For example, AI can be used in more inclusive risk management and credit assessment processes, allowing more individuals, especially those who are excluded from the traditional financial system, to gain access to Islamic financing services. This not only improves operational efficiency but also expands market reach and increases consumer engagement (Khan et al., 2021). However, the main challenge in the development of halal fintech is the issue of digital literacy and understanding of Islamic financial products. Although much progress has been made, many consumers still do not understand how Islamic fintech products work or how to ensure that they comply with Islamic principles. Therefore, more effective digital education is essential to encourage wider adoption among the Muslim community. Many halal fintech consumers still need a deeper understanding of the sharia features integrated into digital products, so the challenge of digital literacy must be overcome with more intensive educational campaigns (Zulkifli and Johari, 2021).

In addition, another challenge that needs to be considered is the issue of user data security and privacy. Because halal fintech relies heavily on digital data to provide more personalized services, it is important for service providers to ensure the protection of users' personal data. Security in digital transactions and the use of strong encryption are very crucial to building consumer trust. Without adequate protection, potential threats to data privacy, such as identity theft and fraud, can hinder the growth of the halal fintech sector. For this reason, regulations governing personal data protection and digital security are urgently needed (Wahab & Ali, 2020).

On the other hand, this study also found that although the halal fintech sector is growing rapidly, collaboration between the fintech sector and traditional Islamic financial institutions is not yet optimal. Some fintech players still have difficulty integrating their products with existing traditional financial institutions. This is due to differences in operational systems and procedures, as well as challenges in aligning sharia principles applied in each sector. Therefore, collaboration between fintech and traditional financial institutions is essential to create a more holistic and inclusive ecosystem, and to ensure the sustainable growth of the halal fintech sector (Hassan & Yousuf, 2019).

In the context of further development, it is important for the halal fintech sector to continue to innovate, not only in terms of technology but also in terms of the products offered. For example, the development of more diverse financial products, such as digital-based sharia insurance or sharia microfinance, can help meet the needs of a wider market. In addition, with the increasing use of technologies such as the Internet of Things (IoT) and augmented reality (AR), the halal fintech sector can introduce more innovative and attractive services to consumers. This innovation is expected to strengthen the competitiveness of the halal fintech sector at the global level and expand market reach in countries with a Muslim majority population (Abdul Rauf, 2020).

Conclusion and Suggestion

Conclusion

Digital technology has a strategic role in driving the growth of halal fintech, which is an important part of the transformation of the sharia-based financial industry in the modern era. With the adoption of technologies such as blockchain, artificial intelligence, and digital payments, halal fintech is able to provide transparent, efficient, and sharia-compliant services (Ali et al., 2021). This technology also supports financial inclusion, expanding public access to halal financial services, especially in countries with large Muslim populations. However, the use of this technology must still pay attention to compliance with sharia rules to maintain consumer trust (Hassan & Yousuf, 2019).

Despite its great potential, several challenges still need to be overcome to maximize the growth of halal fintech. One of them is the lack of digital and Islamic financial literacy among the public, which hinders the widespread adoption of digital technology in this sector (Rahman et al., 2022). In addition, the development of supportive regulations and an inclusive technology ecosystem are also urgent needs. This study shows that collaboration between the government, fintech service providers, and educational institutions is needed to overcome these obstacles and ensure that the development of halal fintech is in line with the needs of the community and sharia principles.

With the right approach, digital technology can not only accelerate the growth of halal fintech but also strengthen the global Islamic financial ecosystem. Further research is needed to explore innovative solutions that can integrate digital technology with sharia principles, as well as identify effective strategies in increasing technology literacy and adoption among consumers. In the long term, the role of digital technology will be increasingly significant in supporting the sustainability and competitiveness of halal fintech in the global market (Ali et al., 2021).

Suggestion

To encourage the growth of halal fintech, strategic steps need to be taken to improve digital literacy and sharia finance among the community. This can be done through educational programs involving various parties, such as educational institutions, government, and halal fintech service providers. Low digital literacy can hinder the adoption of sharia-based financial technology, so it is important to design educational campaigns that focus on the benefits and sharia principles of halal fintech services (Rahman et al., 2022). In addition, government support in the form of inclusive policies can create a conducive ecosystem for the development of this sector.

The development of clear regulations that are in accordance with sharia principles is also needed to ensure the sustainability of halal fintech. These regulations must not only cover compliance with sharia law but also aspects of digital security, consumer protection, and service transparency. Adaptive and responsive regulations to technological innovation can increase consumer confidence and accelerate the adoption of halal fintech (Ali et al., 2021). In this case, collaboration between regulators and industry is essential to ensure that regulations can keep up with technological developments without compromising compliance with sharia.

Finally, technological innovation must continue to be developed to strengthen the competitiveness of halal fintech in the global market. Blockchain, artificial intelligence, and digital payment technology can be optimized to create more efficient and transparent services. Investment in research and development of sharia-based technology can open up new opportunities, both in domestic and international markets (Hassan and Yousuf, 2019). Therefore, halal fintech companies need to establish strategic partnerships with technology and financial institutions to integrate innovative technological solutions that are in line with market needs.

Gap Research

The research gap in the role of digital technology in driving the growth of halal fintech shows that there are several gaps that need to be filled to deepen understanding of the potential and challenges of this sector. Most existing studies focus more on the general potential of digital technology in the financial sector, but few discuss in depth the application of digital technology in the context of sharia-based halal finance. Although technologies such as blockchain and artificial intelligence promise efficiency and transparency, few discuss how these technologies can be optimally integrated with sharia principles in fintech (Ali et al., 2021). In addition, a gap is also seen in studies on digital literacy among halal fintech consumers, where many members of society still do not fully

understand the benefits and how to use technology within the framework of sharia (Hassan & Yousuf, 2019). Therefore, more research is needed to identify practical solutions that can address these challenges and encourage wider adoption of digital technology in the halal fintech sector.

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