

Theme: Implementation of The Jigsaw Learning Model In

Improving Learning Motivation And Learning Outcomes

Technological Innovation in Islamic Finance: A Historical and Contemporary Review

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ABSTRACT

The growth of information technology has created a new paradigm in the financial sector, including Islamic finance. Although the literature on Islamic finance continues to grow, there is still a knowledge gap in terms of how technological innovations have shaped and changed the practice of Islamic finance. Therefore, the main objective of this study is to fill that knowledge gap by providing a comprehensive overview of how technology has influenced Islamic finance. Using a qualitative approach with a library research method, this study investigates historical and contemporary literature relating to technological innovation in the context of Islamic finance. The results show a significant transformation in the practice of Islamic finance in response to technological advances, with a paradigm shift from traditional practices towards more modern and efficient financial models because Islam is a religion of *rahmatan li-l aalamiin* that has principles and values that do not change throughout the ages, there are just some changes that adjust to current technological advances. The conclusion of this study is that technological innovation has become a key factor in directing the development of Islamic finance, which continues to adapt to technology to meet the demands of society and make a positive contribution to sustainable development. The practical implication of this research is to provide guidance for Islamic financial institutions to optimize the benefits of technology to achieve sustainable financial goals.

Keywords: Technology Innovation, Islamic Finance, Sustainable Development

1. Introduction

The rapid growth in the world of technology has opened up new opportunities and changed paradigms in various sectors, including finance. In this context, the Islamic finance sector is no exception. Islamic finance, which is grounded in sharia principles, faces the demand to innovate in order to respond to the evolving dynamics of the global market. Therefore, this article will delve deeper into technological innovation in Islamic finance and how these developments are shaping the Islamic finance landscape.

Along with the changing lifestyles and increasingly complex needs of society, Islamic finance is faced with the challenge of remaining consistent and competitive. Technological innovation is one of the main keys to answering these challenges. In recent years, we have witnessed rapid developments in Financial Technology (FinTech), blockchain and artificial intelligence, all of which have great potential to be integrated in the context of Islamic finance.

The growth of information technology in Islamic finance has been the subject of significant research. Hasan et al. (2020) conducted a literature review and proposed a research agenda to explore the intersection of Fintech and Islamic finance (Hasan, Hassan, and Aliyu 2020).

Technological innovation has had a significant impact on the Islamic finance industry, offering new opportunities and challenges. The integration of financial technology (FinTech) in Islamic finance has been the subject of extensive research. Scholars have emphasized the role of digitalization and innovation in sustainable development from an Islamic finance perspective (Sahabuddin et al. 2019). The application of FinTech has been identified as beneficial to Islamic finance, in line with Shariah principles (Hasan et al. 2020). In addition, the potential impact of advanced technologies such as blockchain, internet of things (IoT), artificial intelligence (AI), and robotics on Islamic banking and finance has also been highlighted (Ali, Abdullah, and Zaki Zaini 2019). These technologies have matured enough to create disruption in the conventional and Islamic finance industries.

In addition, previous literature has also emphasized the need for Shariah-compliant regulation in the application of FinTech in Islamic finance (Razak et al. 2021). The development of technological innovations in Islamic financial services (Sharia FinTech) is recognized as having a positive impact in providing significant convenience in Islamic economic and financial life (Wiguna and Wirdyaningsih 2022). In addition, the presence of Islamic Fintech has also added new instruments, such as digital platforms, which must comply with Shariah (Takidah and Kassim 2022).

However, lack of product and service innovation has been identified as a cause of inefficiency in Islamic banks, which highlights the importance of financial product innovation as per the article researched by Al-Salem (2009) (Al-Salem 2009). Other studies have also observed low levels of innovation in Islamic financial institutions, given the recent evolution of Islamic finance (Panjwani and Shili 2020). In addition, the challenges and potential implications of the introduction of Islamic finance across the economy, including money creation and monetary policy, have been recognized as an area of limited research (Ayub 2022).

Thus, the integration of technological innovation in Islamic finance presents both opportunities and challenges. While the application of FinTech offers the potential for sustainable development and convenience in Islamic finance, it also requires careful consideration of Shariah compliance and regulatory frameworks. The need for product and service innovation in Islamic banks, along with

further research into the wider implications of Islamic finance across the economy. Therefore, researchers will write related to this title because it is considered relevant to the existing problems.

OverviewBased on the above background, it can be concluded that the problem formulation in this study is to explore how technological innovation can play a key role in improving the efficiency and effectiveness of Islamic financial services. In the era of globalization and technological advancement, a deep understanding of how technology can be optimized to improve the performance of Islamic-based financial systems is very important. The central question that arises is to what extent technological innovation can contribute to improving the efficiency of Islamic finance operations and services, and how the implementation of this technology can strengthen the competitiveness of the Islamic finance sector amidst the complexity of global economic demands. Elaborating on these issues, this study aims to investigate the impact and potential of technological innovation in addressing the challenges and opportunities faced by Islamic finance today.

2. Theoretical Basis

2.1 History of Islamic Finance

Islamic finance, as a global phenomenon, has experienced rapid development along with technological innovation in recent decades. This development includes a growing number of Islamic financial institutions that contribute positively to the global economy (Kholis 2017). The history of Islamic finance includes the development of Islamic financial institutions, and Islamic financial literacy in Indonesia shows significant growth in several aspects, including innovation (Menne 2023).

In the context of technological innovation, Sharia Fintech is the talk of the town, combining the principles of Islamic finance with technological advances (Yolanda 2021). The results showed that the development of Islamic Fintech brought significant changes in the financial industry, introducing an innovation paradigm from Sustaining Technology to Disruptive Technology (Ahmad Abdul Gani 2023). So, it can be concluded that the development of Islamic financial institutions, Islamic financial literacy, and the implementation of Sharia Fintech as a form of product of technological development from the aspect of sharia-based technological innovation have formed a strong framework in realizing innovative and adaptive Islamic finance in the contemporary era.

2.2. Technology Evolution in the context of Islamic Finance

Islamic finance has been subject to significant technological innovation, undergoing a striking evolution throughout its history. The technological revolution, especially in the contemporary era, has had a tremendous impact on the development of Islamic financial institutions. Investigating related literature, Nurzianti (2021) describes the paradigm shift of Islamic financial institutions through collaboration with fintech, presenting technological advances as a means to expand access to Islamic finance (Nurzianti 2021).

It is important to note that Indonesia's Financial Services Authority (OJK) has provided a regulatory foundation for the development of Islamic fintech, marking an important stage in the technological evolution of Islamic finance. This reflects an awareness of the crucial role of technology in supporting the growth of the Islamic finance sector (Hendra Kusuma 200AD).

Historically, technological developments in Islamic finance have not only been innovative but also provided concrete solutions to challenges, as seen in the development of Islamic fintech during

the Covid-19 pandemic (Yudhira 2021). Further research by Syafei (2013) revealed the selection of Islamic banking technology in Indonesia, highlighting the influence of conventional banks on the implementation of technology in Islamic banks (Syafei, Ade Wirman, Sisca Debyola Widuhung 2013)

The evolution of technology in Islamic finance reflects a journey full of challenges and innovations. The successful collaboration of fintechs with Islamic financial institutions confirms that this evolution is not only happening at the theoretical level but also in real implementation in the global financial market.

2.3 Historical and Contemporary Literature on technological innovation in Islamic finance

Along with the development of Islamic finance, historical literature provides a rich view of the evolution of technological innovation in this context. A qualitative and literature-type study investigates Islamic banking transactions and their problems, providing in-depth insights into the contemporary dynamics of Islamic banking transactions (Arfaizar, Ayu, and Riyanto 2023). In the digital transformation, contemporary literature highlights cutting-edge innovations in the economy, including Islamic economics and finance. Technology adoption in this sector can utilize various innovations to improve the efficiency and accessibility of Islamic financial services (Wasyith 2019).

Hirawati (2023) discusses Islamic Financial Technology (fintech) as a result of technological innovation with sharia schemes. It creates responsible and ethical financial services, marking a significant shift in the technological approach to Islamic finance (Hirawati, Heni 2023). Historically, the literature reflects the relevance of technology in Islamic financial economics research. Wasyith (2019) discussed whether technology has a significant impact, emphasizing the importance of technology adoption in the context of Islamic financial economics research (Wasyith 2019).

3. Research Methods

This research methodology will adopt a qualitative approach to investigate in depth the aspects of technological innovation in Islamic finance, focusing on historical and contemporary overviews. The qualitative approach allows the research to understand the complexity of this phenomenon, exploring the views, perceptions and experiences of practitioners and academics in implementing technology in the context of Islamic finance.

The initial step involved an intensive literature study to gather current and historical information on technological innovation in Islamic finance. This involved analyzing relevant journals, articles, books and other literature that addressed the evolution of technology in the context of Islamic finance.

The literature study will serve as a theoretical foundation to frame the conceptual framework of this research. An in-depth analysis of the literature will provide a solid foundation to identify historical developments and contemporary trends in Islamic financial technology innovation.

4. Results And Discussion

4.1 Transformation of Islamic Financial Practices over Time

Islamic financial practices not only cover the period since the time of the Prophet Muhammad, but also reflect a strong foundation in Islamic teachings. During that time, various financial practices that conformed to Islamic sharia principles were widely implemented. One of the key practices was

accepting entrustment of wealth, which signaled trust and responsibility in managing other people's assets (Ismirana 2021). Moreover, the activity of lending money for consumption and business purposes, along with remittances, became a common practice among Muslims at that time.

Baitul Maal, the first financial institution at the time of the Prophet, had a central role in storing and managing the wealth of Muslims. Its initial function was to store wealth, and over time, it evolved into an institution responsible for the allocation of funds for public purposes, such as social assistance and public projects. The conception of the baitul mal as an institution for storing and allocating the wealth of the Muslims was further strengthened during the Abbasid dynasty (Fajri 2008).

The principles of Islamic finance underlying this practice are derived from Islamic sharia law. The rejection of the interest system is the cornerstone, and Islamic banking stands out by emphasizing the principle of fairness in financial transactions (Supriadi and Ismawati 2020). The sustainability and development of Islamic financial practices continue to occur throughout history, including in times of globalization. Despite the challenges, the principles of justice and Islamic values remain the main guide in managing Muslim finances (Anon 2014).

During the Abbasid Dynasty, Islamic financial institutions experienced significant progress. The concept of baitul mal was not only a repository of wealth, but also played a role in allocating resources to support the public interest and the welfare of society. This shift reflected the evolution of the Islamic financial system in response to the demands of the times (Khasanah and Paryanto 2006). In addition, the practice of Islamic finance is not only limited to the domestic sphere, but also involves interaction with global markets, which presents new challenges and opportunities.

As a form of finance that is based on Islamic ethical values, this financial practice remains relevant in the context of globalization. While adapting to changing times, Islamic finance maintains its commitment to the principles of fairness, transparency, and economic sustainability (Khasanah and Paryanto 2006).

4.2 Technology's role in paradigm shift

The role of technology in the economic paradigm shift is not only significant but also covers various aspects that form the foundation of a country's economic development. The advancement of science and technology (IPTEK) is not only a support, but also a major driver in economic transformation. The existence of technology allows countries to increase efficiency in the provision of goods and services, open up new opportunities, and increase business competitiveness (Anon 2021).

In relation to economic studies, technology plays an important role in accelerating the commercialization of research and innovation results. The application of technology not only facilitates the process of new discoveries, but also accelerates the introduction of innovative products to the market. This has a positive impact on economic growth, drives the industrial sector, and creates a conducive environment for the development of the innovation ecosystem (Suyatno n.d.).

Information technology capabilities in research development and innovation are also key to achieving competitive advantage. Technology expands access to information and knowledge resources, enabling inter-research collaboration involving experts from different parts of the world. Thus, the economic paradigm is not only determined by physical resources, but also by intellectual and innovative capacity (Resky Rahmadani 2023).

Technological innovation in promotion and marketing strategies also has a significant impact. Technology's ability to deliver information quickly, efficiently and on target creates new opportunities for businesses. The utilization of social media, e-commerce platforms, and other digital promotional tools provides impetus for business sector growth, improves operational efficiency, and opens the door for sustainable economic development (Resky Rahmadani 2023).

However, in recognizing the positive impact of technology, these developments must still be balanced with fair economic law enforcement. Justice, legal certainty, and public welfare are aspects that should not be ignored. In the era of digital transformation, the protection of intellectual property rights, regulations that ensure fair competition, and policies that support economic inclusiveness are crucial to maintaining balance and sustainability in economic development (Suyatno n.d.).

Thus, it can be concluded that technology not only acts as a supporting tool, but also as a major catalyst in the economic paradigm shift. In the pursuit of sustainable economic growth, the wise utilization of technology, together with an appropriate regulatory framework, will be the key to creating a more advanced and competitive society.

4.3 Technology-influenced Contemporary Islamic Finance Model

The technology-influenced Contemporary Islamic Finance model encompasses various innovations in the delivery of Islamic financial services. Here are some key aspects of this model:

a. Financial Technology (Fintech) in Islamic Finance

Fintech is the result of the combination of financial services with technology, changing the business model of Islamic finance from conventional to more efficient and responsive to the needs of modern society.

b. Internalization of Islamic Business Ethic in Sharia Fintech

This model includes the internalization of Islamic business ethics in Islamic Fintech, ensuring that the technology is used in accordance with the principles of Islamic finance.

c. Study on Innovation and Practice of Dual Agreements in the Islamic Financial System

There are innovations and practices of dual contracts in the traditional Islamic financial system, where farmers and other economic actors adapt technology to increase efficiency.

d. Sharia Fintech in the Perspective of Islamic Law

The research shows that Islamic Fintech is explained from the perspective of Islamic law, with an emphasis on compliance with sharia principles in the use of technology.

e. Innovation Between Finance and Technology in Sharia Fintech

Sharia Fintech is defined as an innovation between finance and technology applied in the process of Islamic financial services.

Such models show how technology has permeated every aspect of Islamic financial services, bringing about significant changes in the way transactions, investments, and financing are conducted.

5. Conclusion

In the context of Islamic finance development, technological innovation has emerged as a key driver of positive transformation. Based on the available literature and research, several aspects of conclusions can be identified:

1. Key Factors in the Development of Islamic Finance

Technological innovation stands out as a major factor driving the development of Islamic finance. Islamic financial institutions are constantly adapting to technological advances to improve their services, making innovation the centerpiece of development strategies.

2. Adaptation to Community Demands

Keberlanjutan perkembangan keuangan Islam tercermin dalam kemampuannya untuk memenuhi tuntutan masyarakat yang semakin digital. Teknologi digunakan sebagai alat untuk memberikan layanan keuangan yang efisien dan sesuai dengan prinsip-prinsip syariah.

3. Positive Contribution to Sustainable Development

Technological innovation in Islamic finance not only benefits the financial sector, but also makes a positive contribution to sustainable development. The use of technology within Islamic financial institutions can help achieve sustainable development goals by strengthening financial inclusion and advancing the economy.

4. Practical Implications for Islamic Financial Institutions

This conclusion has significant practical implications. Islamic financial institutions can use the results of this study as a guide to optimize the benefits of technology. By understanding the positive impact of technological innovation, Islamic financial institutions can design more effective strategies to achieve sustainable financial goals.

As such, technological innovation is not only a trend, but also a critical element in steering Islamic finance towards a more inclusive, efficient and sustainable future.

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