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Covid-19 Challenges and the Role of Islamic Fintech: A Literature Review

Afrizal
Faculty of Islamic Economics and Business
State Islamic University of North Sumatera
Jl. IAIN No.1 Medan 20235
Correspondence Email: rizal.loebis74@gmail.com

ABSTRACT

This study aims to conduct a review of Islamic Fintech research development from 2020 to 2022 related to the Coronavirus Disease 2019 (COVID-19) and the role of Islamic fintech. This research is a qualitative-descriptive study utilizing a literature review approach. The literature review was conducted by collecting journal articles relevant to the research objectives using the Publish or Perish (PoP) application, followed by content analysis using the Scopus database. The content analysis identifies two related streams concerning Covid-19 challenges and the role of Islamic Fintech. In detail, Islamic fintech and distributed ledger technology (Blockchain, 1 article) and financial inclusion (6 articles). By conducting a content analysis on each stream, we reveal that the cointegration of Fintech in Islamic finance has enormous potential in elevating socio-economic development, particularly for the underdeveloped community, unbanked people, and micro-small enterprises (MSEs) In addition, the adoption of fintech in Islamic finance will support the government in improving financial inclusion, conquering financial crises, such as COVID-19's crisis.

Keywords: Islamic Fintech, Financial Inclusion, Covid-19

INTRODUCTION

The COVID-19 pandemic has inflicted substantial economic destruction and severely impacted all aspects of life, including financial markets (Baker, 2020) and represents another challenge to Islamic finance after the global financial crisis of 2008 to provide an alternative and sustainable finance. Islamic finance has a large market share in industries such as, microfinance, small and medium enterprises, and retail lending. They are the worst hit during the ongoing pandemic. The magnitude of the financial crisis caused by COVID-19 differs from the global financial crisis of 2008; therefore, it poses different challenges for Islamic finance and banking. It requires a different set of financial services, strategies, and technologies to overcome this challenge (Hassan, Rabbani, & Ali (2020).

The role financial institutions, such as financial technology (fintech) are significant in recovery during and post COVID-19. Financial institutions are crucial to the stability of any financial system, as they ensure the smooth operation of the economy and maintain high liquidity levels. They achieve this by providing credit, managing markets, and managing risk among consumers (Mooney, 2018). The post-COVID-19 recovery is expected to be significant, and Islamic financial institutions are poised to play a key role, similar to their contribution during the recovery following the 2008 financial crisis.

In recent years, Islamic fintech has rapidly advanced, and the COVID-19 pandemic has further accelerated its expansion, reaching millions of affected Muslims and non-Muslim customers (Jan, A., Marimuthu, M., & Pisol bin, M., 2019; Kunhibava, Ling, & Ruslan, 2018).

Thus, the COVID-19 pandemic has accelerated the adoption of fintech, such as digital banking, e-wallets, and payment apps. Due to social distancing and physical distancing measures, many individuals and businesses have shifted to digital solutions for financial transactions. This has increased financial inclusion by providing broader access to financial services for those who previously lacked access. The COVID-19 has highlighted the importance of financial inclusion as part of economic recovery and social welfare strategies, with financial technology playing a key role in achieving these goals.

Over the past twenty years, financial inclusion has become a major global priority and a growing focus for governments and central banks around the world. For example, The Sustainable Development Goals (SDGs) of the United Nations Development Program (UNDP), highlight financial access as a crucial factor for enabler development (Ali et al., 2020).

Arner et al. (2020) argue fintech is the key driver for financial inclusion, which in turn underlies sustainable balanced development, as embodied in the SDGs. The full potential of fintech to support the SDGs may be realized with a progressive approach to the development of underlying infrastructure to support digital financial transformation.

Now fintech is one of major policy focuses of most national governments and regulators, as demonstrated by a range of initiatives promoted by the European Commission (FinTech European Commission, 2018); and an abundant stream of research on fintech (Arner et al., 2020).

Many studies have been conducted by researchers regarding fintech and its role in enhancing financial inclusion. The author is interested in conducting a literature review on the role of Islamic fintech during and after the COVID-19 pandemic.

LITERATURE REVIEW

Fintech

Fintech, in simple terms, refers to technology used to enhance the delivery of financial services (Dorfleiner et al., 2017). Additionally, Gomber et al. (2017) argue that fintech, as a product of innovative internet technology, specifically transforms the stability, business models, and service offerings in the financial sector.

Otoritas Jasa Keuangan (OJK) defines fintech as the activity of updating business processes, business models and financial instruments that provide new added value in the financial services sector by involving the digital ecosystem (Otoritas Jasa Keuangan, 2018).

Islamic Fintech

Conventional fintech and Islamic fintech have the same definition, they have different starting points, namely Islamic fintech is based on Islamic law, especially those related to economic transactions (Hasan, 2018) .

Islamic Fintech based on the Fatwa of the National Sharia Council-Indonesian Ulema Council (DSN-MUI) No.117/DSN-MUI/II/2018 is defined as providing financial services based on Sharia principles that brings together or connects providers of financing with recipients of financing in order to carry out financing contracts through an electronic system using the internet network. In this fatwa it is also stated that Islamic fintech must not conflict with Sharia principles, namely: avoiding riba (usury), gharar (unclear contracts), maysir (doubt about goals/speculation), tadlis (not transparent), dharar (danger), zhulm (loss to one party), and haram.

Financial Inclusion

Financial inclusion involves delivering financial services at affordable cost to all parts of society (FATF, 2017). Babajide, Adegboye & Omankhanlen (2015) define financial inclusion is a process that signifies the improvement in the quantity, quality, and efficiency of financial intermediary services that help enhance livelihoods, foster opportunities, and strengthen economies.

RESEARCH METHOD

This research is a qualitative-descriptive study utilizing a literature review approach. The literature review was conducted by collecting journal articles relevant to the research objectives using the Publish or Perish (PoP) application, followed by content analysis. Content analysis involves a deep discussion of the content of written or printed information to make valid and replicable inferences while considering its context (Zuchdi, 1993).

RESULTS AND DISCUSSION

Based on a search of articles published between 2020-2022 using the Publish or Perish (PoP) application with the keywords "fintech," "Islamic Fintech," and "Covid-19," a total of 7 articles were selected from various reputable international journals indexed in Scopus. Here are the details:

No	Author/Year/Title	Purpose	Results
1	Hassan, M. K. , Rabbani, M. R., & Ali, M. A. (2020) Challenges for the Islamic Finance and banking in post COVID era and the role of Fintech	This study aims to analyze the challenges posed by COVID-19 to the Islamic finance and how disruptive technological innovation called Fintech can be utilized to address those challenges. The study also presents a critical analysis of the Islamic finance and the role of Islamic finance in creating a more sustainable financial system post COVID-19	- The disruptive innovation such as Islamic Fintech provides an equal ground to the Islamic finance to compete and thrive. - The role of Islamic Fintech and the adoption of Fintech by Islamic finance customers will be significant in post-COVID recovery, including: - Use of Fintech for Waqf crowdfunding, Zakat etc - Increased role of Islamic Microfinance institutions - Education, health and food - Social responsibility and solidarity
2	Syed, M. H., Khan, S., Rabbani, M. R., & Thalassinos, Y. E. (2020) An Artificial Intelligence and NLP based Islamic FinTech	This study tries to offer the integration model of zakat and qardhal-hassan with Artificial Intelligence (AI) and Natural Language Processing (NLP) to overcome the COVID-19 crisis	- The integration of AI and NLP will significantly enhance the impact of Zakat and Qardh al-Hassan on accelerating economic recovery - AI and NLP empower Islamic financial institutions reach wider beneficiaries and lenders, improve the precision of the decision-making process, and

	Model Combining Zakat and Qardh-Al-Hasan for Countering the Adverse Impact of COVID-19 on SMEs and Individuals		identify the most impactful program for the beneficiaries. Consequently, this leads to an increase in financial inclusion rates for the economically disadvantaged
3	Rabbani, M. R., Bashar, A., Nawaz, N., Karim, S., Ali, M. A., Ur Rahiman, H., & Alam, M. S (2021a) Exploring the Role of Islamic Fintech in Combating the Aftershocks of COVID-19: The Open Social Innovation of the Islamic Financial System	This study aims to investigate the role of the Islamic financial system in recovery post-COVID-19 and the way Fintech can be utilized to combat the economic reverberations created by COVID-19.	- Adopting fintech in Islamic finance institutions would strengthen the role of Islamic finance in combating the COVID-19 crisis. - Suggesting Islamic Fintech Model post Covid-19 into three terms (short term emergency support, medium run recovery and long run recovery resillence) and recommending the most appropriate Islamic finance instruments for each term. - Islamic fintech should embrace innovation to enhance its contribution to the community
4	Mohd. Nor, S., Abdul-Majid, M., & Erasti, S. N (2021) The role of blockchain technology in enhancing Islamic social finance: the case of Zakah management in Malaysia	This study examines the contribution of blockchain technology in enhancing zakat management.	- This study encourages Islamic social finance to integrate blockchain technology to enhance its management performance - Factors such trust in technology, perceived usefulness of technology, and behavior in using technology are critical in determining the acceptance of blockchain for zakat
5	Rabbani, M. R., , Ali, M. A., Ur Rahiman, H., Atif, M., Zulfikar, Z., & Naseem, Y (2021b) The Response of Islamic Financial Service to the COVID-19 Pandemic: The Open Social Innovation of the Financial System	This study proposes Islamic finance as a potential tool to help affected economies safely pass through the economic crisis resulting from the pandemic.	- There are four phases of economic crisis due to COVID-19 - Ten innovative Islamic financial instruments have the potential to greatly accelerate economic recovery in every crisis phase; with zakat and sadaqah particularly serving as vital sources of funding for marginalized communities
6	Banna, H., Hassan, M. K.,	This study aims to investigate the roles of	- DFI positively contribute to enhancing the stability of Islamic

	Ahmad, R., & Alam, M. R (2022) Islamic Banking Stability Amidst the COVID-19 Pandemic: The Role of Digital Financial Inclusion	Digital Financial Inclusion (DFI) on Islamic banks' stability during COVID-19's crisis.	banking and reducing the fault risk - DFI plays a significant role in reducing the number of unbanked individuals, thereby improving socioeconomic access to financial institutions, especially during the COVID-19 crisis - The significance of DFI's role in enhancing Islamic banking performance highlights the need to boost digital financial literacy through seminars, workshops, and campaigns.
7	Ascarya (2022) The role of Islamic social finance during Covid-19 pandemic in Indonesia's economic recovery	This study aims to propose Islamic solutions to the Covid-19 health and economic crises, specifically using Islamic social finance (ISF) instruments, including zakat, infaq and *waqf*.	Islamic Social Financing (ISF) with its instruments, especially zakat, infaq and *waqf* could help the government and the economy to recover from the crisis. The proposed solutions include: save lives, save households, save businesses, and save financial institutions.

Based on content analysis of the selected articles, two relevant topics emerge: the role of Islamic Fintech in financial inclusion and Islamic Fintech and distributed ledger technology. A discussion on some of the most important papers are presented as follows:

Islamic social finance instruments, including zakat, sadaqah, waqf, Islamic microfinance, and micro takaful models, contribute significantly to financial inclusion (Macchiavello, 2017; Zauro et al., 2020). The integration of fintech has expanded the reach of Islamic financial institutions, enabling access to social finance services such as zakat, waqf, and Islamic microfinance for even the most marginalized individuals (Ahmed & Salleh, 2016). This is further supported by Aziz et al. (2021), who found a positive correlation between digital banking and financial inclusion. Moreover, Ezzahid & Elouaourti (2021) highlighted that digital banking plays a crucial role in reducing the number of unbanked by offering accessible and competitively priced financial services.

Further research explores how fintech can enhance the effectiveness of Islamic social economy and financial institutions during the COVID-19 pandemic. Banna et al. (2022) and Syed et al. (2020) highlighted that the integration of fintech in Islamic banking has a crucial role in enhancing banking stability, specifically during the economic downturn induced by COVID-19, specifically by reducing service costs, maximizing profits, and improving the overall efficiency of banks.

Hence, existing research indicates that stakeholders should focus on developing effective strategies to foster an environment conducive to integrating fintech within Islamic social economy and financial institutions. This includes hosting regular seminars, campaigns, workshops, and training sessions to enhance digital financial literacy. Such initiatives are likely to improve the effectiveness of mobile banking, particularly benefiting unbanked communities, small business owners, undereducated individuals, women, and the elderly (Banna et al., 2021)

Rabbani et al. (2021a) proposed a model demonstrating how Islamic finance can be leveraged to address the impacts of COVID-19, indicating that Islamic fintech will expedite the collection and distribution of community funds across short, medium, and long-term periods. Zakat, qardh al-hassan, and sadaqah are appropriate for short-term energy support; Fintech-based crowdfunding, the UNDP's Global Islamic Finance, Impact Investing Platform, and smart contracts are appropriate for recovery in the medium term; and Waqf, social SUKUK, and smart contracts are appropriate for long-term recovery and resilience The adoption of Islamic fintech by financial institutions is poised to provide significant solutions for economic challenges arising from the pandemic. Additionally, Rabbani et al. (2021b) outlined a four-stage economic framework for addressing COVID-19, namely, business and economic damage, financial contagion, bottom formation, and post COVID-19 effects. In addition, for each stage of the epidemic, the study also suggests ten innovative Islamic financial services.

Moreover, Hassan et al. (2020) highlighted the role of Islamic fintech and the adoption of fintech by Islamic finance customers will be significant in post-COVID recovery, including: Use of Fintech for Waqf crowdfunding, Zakat etc; Increased role of Islamic Microfinance institutions; Education, health and food; and Social responsibility and solidarity and they proposed four potential Fintech-integrated Islamic finance instruments to mitigate the economic downturn caused by COVID-19, namely, Islamic cryptocurrency, a blockchain-based system for zakat and qardh-al-hasan, smart contracts, and smart Islamic banking.

Mohd Nor et al. (2021) suggested that blockchain technology’s effectiveness could be enhanced by socializing and educating the community about the significant advantages and convenience of utilizing blockchain on Islamic social finance such as zakat. Such initiatives are expected to significantly boost the collection and distribution of zakat within society.

Ascarya, A (2022) stated that Islamic Social Financing (ISF) with its instruments, especially zakat, infaq and *waqf* could help the government and the economy to recover from the crisis. The proposed solutions include: save lives, including medical assistance using zakat-infaq and health-care waqf using *waqf*; save households, by creating a social safety net and graduation program using zakat-infaq; save businesses, especially micro-small enterprises (MSEs), through financial and business assistance (especially digital marketing) leveraging zakat-infaq-waqf and save financial institutions, especially micro-small financial institutions, by the development of cash *waqf* and the adoption of fintech and Islam, integrated Islamic commercial and social finance (IICSF), especially in Islamic financial institutions targeting MSEs.

CONCLUSION

This study identifies two related streams concerning Covid-19 challenges and the role of Islamic fintech. In detail, Islamic fintech and distributed ledger technology (Blockchain, 1 article) and financial inclusion (6 articles).

By conducting a content analysis on each stream, we reveal that the cointegration of Fintech in Islamic finance has enormous potential in elevating socio-economic development, particularly for the underdeveloped community, unbanked people, and micro-small enterprises (MSEs). In addition, the adoption of fintech in Islamic finance will support the government in improving financial inclusion, conquering financial crises, such as COVID-19's crisis.

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