

Concept of Fintech and Financial Inclusion in the Light of *Sharī'ah*

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ABSTRACT

A technology integration that strictly complies with Sharī'ah principles within the financial services industry is known as Islamic fintech. This suggests that financial services that adhere to Sharī'ah principles can be provided via cutting-edge digital channels referred to as omni-channels. By analyzing the secondary sources related to the topic guided with Sharī'ah-based information collected from the jurisprudence books, this paper aims at enlightening the horizon of financial inclusion from Sharī'ah perspective. As a result, fintech principles are upheld by Islamic tenets when they align with principles that support knowledge, innovation, virtuous conduct, human welfare, and considerations for potential harms or suffering to humanity. This is based on evidence from al-Qur'ān, Ḥadīth, Maqāṣid al-Sharī'ah and Ma'ālāt al-Af'āl. The legitimacy of fintech is still intact as long as the above-mentioned requirements are fulfilled.

Keywords: *Fintech, shari'ah, Islamic Finance, Integration*

AN OVERVIEW OF FINTECH AND FINANCIAL INCLUSION FROM SHARĪ'AH POINT OF VIEW

Fintech, an amalgamation of "financial" and "technology," constitutes a novel technological innovation aimed at enhancing existing financial services.⁴ According to the Financial Stability Board, fintech encompasses technology-driven advancements within the realm of financial services, potentially giving rise to novel business models, applications, processes, or products, thereby significantly impacting the delivery of financial services.⁵ Some concurred with this definition, further asserting that these innovations are not confined to fitting into preexisting business paradigms but have the potential to revolutionize operations entirely.⁶ Additionally, fintech may pertain to the technologies adopted by financial institutions to reform and modernize their operational strategies.⁷

In Malaysia, a comparative analysis for illustrative business models can be drawn between traditional taxi services and the modern Grab service. Conventional taxis are typically hailed by customers on the street through a hand signal, with fares calculated based on a meter that factors in both distance and time to the destination.

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⁴ Julia Kagan, "Financial Technology (Fintech): Its Uses and Impact on Our Lives," (2022). <https://www.investopedia.com/terms/f/fintech.asp>.

⁵ FSB Financial Stability Board, "FinTech and Market Structure in the COVID-19 Pandemic: Implications for financial stability," (2022). <https://www.fsb.org/wp-content/uploads/P210322.pdf>.

⁶ Kelvin Leong and Anna Sung, "FinTech (Financial Technology): What is It and How to Use Technologies to Create Business Value in FintechWay?," *International journal of innovation, management and technology* (2018): 75, <http://www.ijimt.org/vol9/791-M775.pdf>.

⁷ Oskar Kowalewski and Paweł Pisany, "Banks' consumer lending reaction to fintech and bigtech credit emergence in the context of soft versus hard credit information processing," *International Review of Financial Analysis* 81 (2022/05/01/ 2022), <https://doi.org/https://doi.org/10.1016/j.irfa.2022.102116>, <https://www.sciencedirect.com/science/article/pii/S1057521922000849>.

Conversely, Grab is considered a fintech entity due to its introduction of innovative features aimed at enhancing the existing service. Through a mobile application, customers have the flexibility to make bookings at their convenience, along with the advantage of transparent and upfront pricing to manage their budgets effectively. This emergence of fintech has progressively superseded traditional financial services, owing to its heightened convenience and cost-effectiveness.⁸

In a financial transaction scenario, rather than encountering the inconvenience of insufficient cash for a purchase and subsequently having to urgently locate the nearest Automated Teller Machine (ATM), individuals can simply utilize a Quick Response (QR) code to facilitate a payment transfer directly from their e-wallet in exchange for the goods. Another illustration is the robo-advisors, a subset of fintech enterprises that leverage advanced algorithms for comprehending, analyzing, advising, and in certain cases, executing investment strategies. They assume the conventional roles of fund managers or financial analysts in furnishing recommendations related to investment or banking products. Besides the absence of agent fees, which presents a palpable benefit to customers in terms of cost-effectiveness, the technological underpinnings of robo-advisors yield prompt outcomes, often within seconds—a feat largely beyond the capability of human counterparts. Additionally, these systems diminish the likelihood of misinterpretation and calculation errors, thereby showcasing a level of efficiency that surpasses human interpretation and eliminates the potential for common human errors in the decision-making process.⁹

In recent years, the evolution of Fintech can be delineated through three significant phases, commencing with Fintech 1.0 in 1866. This era marked the inception of financial globalization, facilitated by technological advancements such as telegraphy, railroads, canals, steamships, and the successful laying of the first transatlantic cable. These innovations supported cross-border financial interconnections, resulting in the swift dissemination of financial information, transactions, and payments across the globe. This phase persisted until a period of relative dormancy brought about by the disruptions of the First World War. Towards the culmination of this phase, the introduction of credit cards in the United States and the establishment of a global telex network further augmented the foundational communication infrastructure for the subsequent stage of Fintech. Following this, in 1967 (Fintech 2.0), a notable shift occurred with the advent of digitalization, marking a departure from analog methods. The conventional financial sectors discerned the immense potential within Fintech, progressively embracing paperless procedures in their operations. This progression persisted until financial services were entirely digitized, establishing them as the predominant procurers of Information Technology (IT) during this epoch. Concurrently, electronic payment systems, clearing mechanisms, automated teller machines (ATMs), and online banking platforms were introduced and adopted in this period. Regulatory bodies also stepped in to ensure the efficacy of the financial market and to mitigate credit-related risks. Since 2008, marked as the emergence of Fintech 3.0, the landscape of financial services provisioning has undergone a significant transformation. This shift has steered the sector away from its prior domination exclusively by regulated financial institutions and banks. Instead, a

⁸ Hasnan Baber, "Financial inclusion and FinTech," *Qualitative Research in Financial Markets* 12, no. 1 (2019), <https://doi.org/10.1108/qrfin-12-2018-0131>.

⁹ Kinan Salim, Moutaz Abojeib, and Baharom Abdul Hamid, *Islamic Fintech in Malaysia: Reality & Outlook* (Kuala Lumpur: The International Centre for Education in Islamic Finance (INCEIF), 2020), 35, https://www.inceif.org/wp-content/uploads/2020/12/2020_21-Islamic-Fintech-in-Malaysia-Reality-Outlook.pdf.

new wave of startups and technology-driven companies has surfaced, directly offering financial services to the wider society. Consequently, retail customers' perceptions regarding the entities possessing the requisite resources and credibility to furnish financial services have experienced a notable recalibration.¹⁰ This historical trajectory underscores that Fintech did not materialize abruptly *ex nihilo*, but rather, it evolved in tandem with human progression and knowledge accumulation over time.

In Malaysia, Bank Islam Malaysia Berhad (BIMB) pioneered SMS banking, a service that has since been adopted by nearly all commercial banks in the country. Another notable service is offered by Hong Leong Bank Bhd, known as PEX (payment express), which enables customers to transfer funds using only the recipient's mobile phone number, bypassing the need for detailed banking information. This streamlined process expedites interbank transfers within Malaysia. Furthermore, the trend towards cashless payments in Malaysia has been bolstered by the introduction of Alipay to the Malaysian market in June 2017, with the widely recognized retailer '7-Eleven' being an early adopter of this payment channel.¹¹

From a definitional standpoint of fintech, Islamic fintech can be elucidated as a technological integration within financial services that strictly adheres to *Sharī`ah* principles. This implies that financial services in compliance with *Sharī`ah* tenets can be dispensed through innovative digital channels, known as omni-channels.¹² The term "Islamic fintech" is commonly associated with the concept of *Sharī`ah* compliance. The term "*Sharī`ah* compliant" encompasses the notion of catering to customers seeking Islamic financial products. While the terms "Fintech" and "Islamic Fintech" share fundamental similarities, the latter encompasses attributes of inclusivity, transparency, ethicality, mutual benefit, and steadfast adherence to *Sharī`ah* principles.¹³ In contrast, conventional Fintech primarily revolves around interest-based innovations—a practice staunchly prohibited in Islamic finance due to the proscription of transactions involving *ribā*, *gharar*, and *maysir*. The concept of Islamic Fintech remains relatively nascent, with limited extant studies in this domain.¹⁴ The implementation of fintech offers numerous advantages in advancing financial inclusion, ameliorating poverty, and fostering social equity. Moreover, Islamic Fintech extends accessibility to Islamic financial services to a broader demographic, aligning with the principles of *Maqāṣid al-Sharī`ah*.¹⁵

Malaysia is poised to emerge as the global frontrunner in Islamic Fintech.

¹⁰ Douglas Arner, Janos Barberis, and Ross Buckley, "The Evolution of Fintech: A New Post-Crisis Paradigm?," *Georgetown Journal of International Law* 47 (01/01 2016), <https://doi.org/10.2139/ssrn.2676553>.

¹¹ Chong Tun-Pin et al., "An adoption of fintech service in Malaysia," *South East Asia Journal of Contemporary Business* 18, no. 5 (2019).

¹² Hassnian Ali et al., "Global Landscape of the Islamic Fintech: Opportunities, Challenges and Future Ahead," *COMSATS Journal of Islamic Finance* 4, no. 2 (2019), <https://doi.org/10.26652/cjif.4201923>.

¹³ Ryan Calder, "Sharī`ah-compliant or Sharī`ah-based? The Changing Ethical Discourse of Islamic Finance," *Arab Law Quarterly* 34 (12/01 2020), <https://doi.org/10.1163/15730255-BJA10008>, https://www.researchgate.net/publication/340343201_Shariah-compliant_or_Shariah-based_The_Changing_Ethical_Discourse_of_Islamic_Finance.

¹⁴ Mustafa Raza Rabbani et al., "Exploring the Role of Islamic Fintech in Combating the Aftershocks of COVID-19: The Open Social Innovation of the Islamic Financial System," *Journal of Open Innovation: Technology, Market, and Complexity* 7, no. 2 (2021/06/01/ 2021), <https://doi.org/https://doi.org/10.3390/joitmc7020136>, <https://www.sciencedirect.com/science/article/pii/S2199853122009052>.

¹⁵ Hazik Mohamed and Hassnian Ali, *Blockchain, Fintech, and Islamic Finance: Building the Future in the New Islamic Digital Economy* (2018).

Anticipated figures project Islamic Fintech transactions among Organization of Islamic Cooperation (OIC) member countries to ascend to US\$79 billion by 2021, constituting approximately 0.8% of the worldwide Fintech transaction volume. Projections indicate that the Islamic Fintech market is set to achieve a valuation of \$179 billion by 2026, demonstrating a Compound Annual Growth Rate (CAGR) of 17.9% over the same period, mirroring the trajectory of the global Fintech sector, which is anticipated to experience a CAGR of 13.5%. Malaysia, heralded for its leading position in market maturity, and ranked among the top five Islamic Fintech markets in terms of transaction volume, occupies a central role in driving this substantial expansion. Furthermore, Malaysia has secured the top position in the Global Islamic Fintech (GIFT) Index, signifying its favorable environment for the growth of Islamic fintech. This assessment is based on an evaluation of 32 indicators spanning five pivotal categories: the Islamic Fintech market and ecosystem, talent, infrastructure, capital, and regulation.¹⁶

Hence, it is evident that fintech represents a novel and innovative approach by integrating technology into financial services and systems to provide enhanced solutions for users. Within the framework of BNPL, it offers heightened convenience, expeditious credit approval without substantial credit risk assessment in the majority of BNPL services, and cost-effectiveness, with lower expenses incurred by consumers compared to other credit facilities. Additionally, BNPL providers, in offering short-term credit to consumers, currently operate without specific credit regulations and legislations.¹⁷ The Islamic BNPL model similarly embraces fintech principles akin to conventional BNPL, albeit with adherence to specific *Shari`ah* conditions and requisites, which will be discussed in subsequent sections.

Hence, it can be observed that fintech is a new innovative idea by leveraging the technology into the financial services and systems to deliver much better solutions for the users. In the context of BNPL, it is more convenient to use, faster in credit approval with no credit risk assessment for major of BNPL services as well as affordable by incurring lower cost to consumers compared to other credit facilities. Besides, with the benefit of offering short-term credit to consumers, BNPL providers are yet to subject for any credit regulations and legislations. The Islamic BNPL also applied the same concept of fintech with conventional BNPL though certain *Shari`ah* conditions and requirements are to be met which is discussed in the next subtopics.

DEFINITION OF FINANCIAL INCLUSION

The precise delineation of financial inclusion remains a subject of ongoing scholarly inquiry, despite numerous conducted studies.¹⁸ This complexity arises from the multifaceted influence of various barriers and factors on financial inclusion. It may result from either voluntary sources, often associated with religious considerations, or involuntary sources, which stem from factors unrelated to religious concerns.¹⁹ Notably, some studies employ the term 'financial exclusion', a concept that stands in direct contrast to the notion of financial inclusion.

Financial inclusion is commonly understood as the provision of opportunities

¹⁶ *Global Islamic Fintech Report 2022*, (2022), <https://cdn.salaamgateway.com/reports/pdf/73c8862dbc754ecff45bf78b7c72a42b3c30fcdd.pdf>.

¹⁷ Paul Gerrans, Dirk G. Baur, and Shane Lavagna-Slater, "Fintech and responsibility: Buy-now-pay-later arrangements," *Australian Journal of Management* 47, no. 3 (2021), <https://doi.org/10.1177/03128962211032448>.

¹⁸ Baber, "Financial inclusion and FinTech."

¹⁹ Aishath Muneeza, "Modified Reverse Salam Product as an Innovative alternative for mobilizing fixed deposits in Jurisdictions with Limited Shariah Compliant Investment Avenues to Promote Financial Inclusion," *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah* 11 (11/21 2019), <https://doi.org/10.15408/aiq.v11i1.7111>.

for economically disadvantaged individuals to access essential financial services, thereby enabling them to establish a sustainable source of income.²⁰ Typically lacking stable employment, these individuals often experience limited earnings. The income acquired is primarily allocated to cover daily living expenses, with any residual funds reserved for potential emergencies. Some among this demographic may refrain from approaching traditional banking establishments due to financial constraints, such as an inability to afford annual debit card fees. Additionally, on the lending front, impoverished individuals frequently face rejection from banks and financial institutions when seeking loans. This is attributed to the institutions' apprehension regarding the heightened credit and default risks associated with individuals of low income, particularly those lacking collateral or guarantees. Consequently, genuine financial inclusion for the economically disadvantaged is contingent upon financial institutions offering services at reduced, accessible costs.²¹

Furthermore, it is evident that religious beliefs play a significant role in the financial exclusion of Muslims from formal financial systems. This arises from their familiarity with conventional financial products and their adherence to Islamic principles. Consequently, they abstain from engaging in interest-based financial transactions, a practice strictly prohibited by *Shari'ah*. Additionally, even economically disadvantaged Muslims may eschew conventional microloans.²² Notably, a portion of the Muslim population exhibits a discernible lack of financial literacy. They may not be well-informed about the range of financial products offered by Islamic financial institutions, including commodity *murabahah*-based deposits, leasing, sukuk, and other related instruments. Furthermore, some individuals may not possess adequate knowledge regarding the distinctions between conventional and Islamic banking entities.²³ It is pertinent to note that certain well-educated Muslims may also face financial exclusion due to religious considerations.²⁴ The crucial point to emphasize here is the deficiency in financial literacy, particularly in the realm of Islamic finance, which is not universally addressed among Muslims, even those with higher education in other disciplines. Concurrently, some Muslims contend with societal discrimination, particularly in countries where they constitute a minority population within the broader Muslim community.²⁵ This may be attributed to issues of Islamophobia, leading to their stigmatization and encroachment upon their rights, including access to financial services.

²⁰ Miriam Bruhn and Inessa Love, "The Real Impact of Improved Access to Finance: Evidence from Mexico," *The Journal of Finance* 69 (06/01 2014), <https://doi.org/10.1111/jofi.12091>.

²¹ Peterson K. Ozili, "Impact of digital finance on financial inclusion and stability," *Borsa Istanbul Review* 18, no. 4 (2018/12/01/ 2018), <https://doi.org/https://doi.org/10.1016/j.bir.2017.12.003>, <https://www.sciencedirect.com/science/article/pii/S2214845017301503>.

²² Nimrah Karim, Michael Tarazi, and Xavier Reille, "Islamic Microfinance: An Emerging Market Niche," *Focus Note CGAP* 49 (August 2008 2008), <https://www.cgap.org/research/publication/islamic-microfinance-emerging-market-niche>.

²³ Bünyamin Er and Mesut Mutlu, "Financial Inclusion and Islamic Finance: A Survey of Islamic Financial Literacy Index," *International Journal of Islamic Economics and Finance Studies* 3, no. 2 (July 2017 2017), <https://pdfs.semanticscholar.org/0133/2da0fb39afbbf7b1b0ef082d9441c2a8c90b.pdf>.

²⁴ Elhadj Ezzahid and Zakaria Elouaourti, "Financial inclusion, mobile banking, informal finance and financial exclusion: micro-level evidence from Morocco," *International Journal of Social Economics* 48, no. 7 (2021), <https://doi.org/10.1108/IJSE-11-2020-0747>, <https://doi.org/10.1108/IJSE-11-2020-0747>.

²⁵ Asli Demircuc-Kunt, Leora F. Klapper, and Douglas Randall, "Islamic Finance and Financial Inclusion: Measuring Use of and Demand for Formal Financial Services among Muslim Adults," *World Bank Policy Research Working Paper* (October 1 2013), 6642, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2341370#.

Financial inclusion, as defined by The United Nations Capital Development Fund (UNCDF), plays a pivotal role in advancing eight out of the seventeen Sustainable Development Goals (SDGs). These encompass the following critical areas: eradication of poverty, elimination of hunger, promotion of good health and well-being, provision of quality education, attainment of gender parity, facilitation of decent work and economic progress, development of industry, innovation, and infrastructure, as well as the reduction of disparities.²⁶

In summary, financial inclusion entails the widespread provision of financial services to encompass individuals and entities across various socio-economic strata, encompassing the economically disadvantaged, vulnerable populations, and those with modest incomes. This encompasses both individual households and small to medium enterprises (SMEs), extending to the Muslim demographic as well. In BNPL concept, this short-term and low-cost loan facility is granted and extended to more groups of people, particularly those without an established credit history or possessing low credit scores, which is around 80% of respondents according to a survey. This situation encompasses individuals residing in countries characterized by high credit card penetration but may not meet the criteria for credit card approval or individuals in regions with limited credit card usage. Moreover, individuals with modest incomes and younger consumers, who might face challenges in obtaining credit card approval yet lack immediate liquidity for substantial purchases, stand to gain significant advantages from this inclusivity of BNPL services.²⁷

RELATION BETWEEN FINTECH AND FINANCIAL INCLUSION

Digital services have emerged as a highly effective solution in addressing the imperative of enhancing financial inclusion. The ascendancy of fintech, particularly digital banking, has played a pivotal role in driving this surge, ultimately contributing to both economic and social advancement.²⁸ While microfinance institutions (MFIs) have played a critical role in extending financial services to a significant portion of the previously excluded population, there has been a notable proliferation of a distinct form of financial innovation in developing economies. Fintech stands out as one of the swiftest and most widely diffused financial innovations ever witnessed.²⁹

The trend of advancing financial inclusion in Morocco can be delineated into three distinct phases. In the initial phase (1999-2004), there was a marginal rise in financial inclusion. Subsequently, during the second phase (2004-2012), substantial growth was observed. In the final phase (2012-2019), the level of financial inclusion remained relatively stable. This notable progression can be attributed to the implementation of digital banking, which markedly lowered the barriers for financial

²⁶ BNM Bank Negara Malaysia, Financial Inclusion Framework 2023 – 2026 Discussion Paper, (2023).

²⁷ Felix Aidala, Daniel Mangrum, and Wilbert van der Klaauw, "Who Uses "Buy Now, Pay Later?," (26 September 2023: Federal Reserve Bank of New York Liberty Street Economics, 8 October 2023 2023). <https://libertystreeteconomics.newyorkfed.org/2023/09/who-uses-buy-now-pay-later/>; Afnaan Hisham Moharram, "Towards Responsible Consumption and True Financial Inclusion: Assessing Fintech Buy-Now, Pay-Later (BNPL) from an Islamic Perspective" (M.S., Hamad Bin Khalifa University (Qatar), 2023), <https://www.proquest.com/docview/2845445728?pq-origsite=gscholar&fromopenview=true> (30421294).

²⁸ Muhammad Aziz et al., "Bibliometric Analysis Of Literatures On Digital Banking And Financial Inclusion Between 2014-2020," *Library Philosophy and Practice* 2021 (05/13 2021).

²⁹ Désiré Avom, Chrysost Bangaké, and Hermann Ndoya, "Do financial innovations improve financial inclusion? Evidence from mobile money adoption in Africa," *Technological Forecasting and Social Change* 190 (2023/05/01/ 2023), <https://doi.org/https://doi.org/10.1016/j.techfore.2023.122451>, <https://www.sciencedirect.com/science/article/pii/S0040162523001361>.

access among underserved demographics. However, it is noteworthy that the digital banking framework fell short in ameliorating the issue of financial exclusion experienced by women, older individuals, and those with limited formal education.³⁰ This can be attributed to a lack of familiarity with technology within these specific demographic groups.

In brief, fintech predominantly intersects with financial inclusion through two primary domains: payment systems and funding mechanisms. In terms of payments, the introduction of electronic money (e-money) and electronic wallets (e-wallets) has marked a significant milestone in advancing financial inclusivity. Notably, the World Bank's Global Findex 2021 Report indicates that 79% of Malaysian adults have adopted digital payments, with 42% of these individuals doing so for the first time during the Covid-19 pandemic.³¹ This shift from cash-based transactions to digital payments not only facilitates convenience but also mitigates the risk of disease transmission. Furthermore, while both e-money and e-wallets have reduced or eliminated domestic transfer fees, digital currencies or cryptocurrencies have the capacity to significantly decrease the exorbitant costs associated with cross-border remittances. This reduced transactional expense may enhance financial inclusion by enabling migrants to allocate a portion of their earnings to their respective families in their home countries.³²

Crowdfunding technology is also recognized for its potential to bolster financial inclusion endeavors, particularly by granting access to financing for financially marginalized micro, small, and medium-sized enterprises (MSMEs) and startups.³³ Traditionally, these entities face barriers in obtaining funding due to limited or absent credit histories and stringent banking regulations governed by profit-driven models. With the advent of crowdfunding, both issuers (entrepreneurs) and investors benefit from the cost efficiencies of transactions, thereby fostering financial inclusion within society.³⁴ Moreover, the amalgamation of crowdfunding with blockchain technology holds substantial potential, enabling equity crowdfunding stakeholders to partake in blockchain voting systems and the implementation of digital currency via a blockchain network.³⁵

Islamic Fintech stands poised to augment financial inclusion among marginalized communities through various means, including the provision of funding or donations. For instance, the integration of Artificial Intelligence (AI) and Natural Language Processing (NLP) in the distribution of zakat (obligatory almsgiving) and the facilitation of non-interest loans (*qard³⁶*) contributes to an expanded network of

³⁰ Ezzahid and Elouaourti, "Financial inclusion, mobile banking, informal finance and financial exclusion: micro-level evidence from Morocco."

³¹ Bank Negara Malaysia, Short Financial Inclusion Framework 2023 – 2026 Discussion Paper.

³² Daivi Rodima-Taylor and William W Grimes, "Cryptocurrencies and digital payment rails in networked global governance: perspectives on inclusion and innovation," in *Bitcoin and Beyond* (Routledge, 2017).

³³ Ivo Jenik, Timothy Lyman, and Alessandro Nava, "Crowdfunding and financial inclusion," *Consultative Group to Assist the Poor (CGAP)* (2017), <https://www.cgap.org/sites/default/files/Working-Paper-Crowdfunding-and-Financial-Inclusion-Mar-2017.pdf>.

³⁴ Amina Slimani and Mustapha Ziky, "Crowdfunding and Financial Inclusion: A Systematic Literature Review and A Conceptual Framework," *International Journal of Business and Economy*, no. 4 (2021-12-04 2021), <https://myjms.mohe.gov.my/index.php/ijbec/article/view/16389>.

³⁵ Aishath Muneeza, Nur Arshad, and Asma Tajul Arifin, "The Application of Blockchain Technology in Crowdfunding: Towards Financial Inclusion via Technology," *International Journal of Management and Applied Research* 5 (07/30 2018), <https://doi.org/10.18646/2056.52.18-007>.

³⁶ Shari'ah Advisory Council (SAC) Bank Negara Malaysia (BNM) in its 51st meeting on 28th July 2005, reinstate the '*qard hasan*' term is inaccurate and should be replaced with '*qard*' term only as

beneficiaries, heightened decision-making precision, identification of beneficiaries' needs, and a secure transaction record.³⁷ Furthermore, blockchain technology may find application in the management of *waqf*³⁸, *ṣadaqah*³⁹, or social sukuk issuance, thereby enhancing transparency and consequently ameliorating poverty and bolstering financial inclusion more effectively than prevailing practices.⁴⁰ Additionally, smart contracts may be deployed in *salam* contracts for fixed deposits, where the underlying commodities are sourced from agricultural activities conducted by economically disadvantaged segments of society, thereby furthering financial inclusion.⁴¹

In the realm of BNPL arrangements, the symbiotic relationship between fintech and financial inclusion is evident. The integration of technology in BNPL serves as a financial tool to enhance accessibility and inclusivity by extending services to a broader consumer base. Specifically, underserved demographics such as younger individuals, lower-income households, and those previously rejected from other credit facilities, particularly credit cards, can avail themselves of the benefits offered by fintech-driven BNPL services for specified purposes.⁴²

FINANCIAL INCLUSION FROM SHARĪ`AH PERSPECTIVE

Every matter should be evaluated in light of its underlying objectives and goals. If an action is rooted in a commendable intention that aligns with Islamic principles, it receives approval according to *Sharī`ah*. Conversely, if it contradicts these principles, it is not endorsed. This is commensurate with the great popular *Qawā'id al-Fiqhiyyah*:

الأمر بمقاصدها

Translation: Affairs are judged by attentions.⁴³

The financial inclusion intends to include all walks of life in accessing financial services. This concept is endorsed in Islam as Islam always encourage the justice and equality especially in the cultivation of a robust economic and social wellbeing.⁴⁴ To instate fairness within commercial transactions, *Sharī`ah* mandates a set of regulations

the latter was being used by Islamic Jurists in their books which indicate the loan contract. Meanwhile, the former term was derived from *al-Qur'ān* which depicts the meaning of contribution (*infāq*) for the sake of Allah SWT. *Shariah Resolution in Islamic Finance: Second Edition*, (BNM Bank Negara Malaysia, 2010), 48-49..

³⁷ Syed Haider et al., "An artificial intelligence and NLP based Islamic FinTech model combining Zakat and Qardh-Al-Hasan for countering the adverse impact of COVID 19 on SMEs and individuals," *International Journal of Economics and Business Administration* 8, no. 2 (2020).

³⁸ endowment

³⁹ voluntary charity

⁴⁰ M. Kabir Hassan, Mustafa Rabbani, and Mahmood Ali, "Challenges for the Islamic Finance and banking in post COVID era and the role of Fintech," *Journal of Economic Cooperation and Development* 41 (08/01 2020); Muhamad Hasif Yahaya and Ahmad Khaliq, "Financial Inclusion through Efficient Zakat Distribution for Poverty Alleviation in Malaysia: Using FinTech & Mobile Banking" (paper presented at the 5th International Conference on Management and Muamalah (ICoMM), Tenera Hotel, Bangi, Malaysia, 2018).

⁴¹ Hassan, Rabbani, and Ali, "Challenges for the Islamic Finance and banking in post COVID era and the role of Fintech."; Muneeza, "Modified Reverse Salam Product as an Innovative alternative for mobilizing fixed deposits in Jurisdictions with Limited Shariah Compliant Investment Avenues to Promote Financial Inclusion."

⁴² Moharram, "Towards Responsible Consumption and True Financial Inclusion: Assessing Fintech Buy-Now, Pay-Later (BNPL) from an Islamic Perspective."

⁴³ Ibrāhīm bin Mūsā al-Shātibī, *al-Muwāfaqāt fī Usūl al-Sharī`ah* (Dār Ibn `Affān, 1997). <https://shamela.ws/book/11435/675>.

⁴⁴ IFSB Islamic Financial Services Board, "Technical Note on Financial Inclusion and Islamic Finance," (2019), <https://www.ifs.org/download.php?id=5519&lang=English&pg=/index.php>.

and principles governing contracts and business dealings which include the necessity of mutual consent in contracts to guarantee impartiality and fairness as well as prohibition of any elements that might engender unjust practices in business, encompassing acts like bribery, fraud, deception, monopoly, *ribā*, *gharar* and *maysir*.⁴⁵ Allah SWT said in *al-Qur'ān*:

...وَأَحْسِنُوا إِنَّ اللَّهَ يُحِبُّ الْمُحْسِنِينَ

Translation: ...And do good; indeed, Allah loves the doers of good (al-Baqarah 2:195)

In another verse, Allah SWT said:

إِنَّ اللَّهَ يَأْمُرُ بِالْعَدْلِ وَالْإِحْسَانِ...

Translation: Indeed, Allah orders justice and good conduct... (al-Nahl 16:90)

Moreover, Islam advocates for equitable treatment across all strata of society, extending even to non-Muslims who do not display hostility towards Muslims. Allah SWT said:

يَا أَيُّهَا الَّذِينَ ءَامَنُوا كُونُوا قَوَّامِينَ بِالْقِسْطِ شُهَدَاءَ لِلَّهِ وَلَوْ عَلَىٰ أَنفُسِكُمْ أَوِ الْوَالِدِينَ
وَالْأَقْرَبِينَ إِنْ يَكُنْ غَنِيًّا أَوْ فَقِيرًا فَاللَّهُ أَوْلَىٰ بِهِمَا فَلَا تَتَّبِعُوا هَوَىَٰ أَنْ تَعْدِلُوا وَإِنْ تَلُوبُوا
أَوْ نُرِضُوا فَإِنَّ اللَّهَ كَانَ بِمَا تَعْمَلُونَ خَبِيرًا

Translation: O you who have believed, be persistently standing firm in justice, witnesses for Allah, even if it be against yourselves or parents and relatives. Whether one is rich or poor, Allah is more worthy of both. So follow not [personal] inclination, lest you not be just. And if you distort [your testimony] or refuse [to give it], then indeed Allah is ever, with what you do, Acquainted. (al-Nisā' 4:135)

In another verse, Allah SWT also said:

لَا يَنْهَىٰكُمْ اللَّهُ عَنِ الَّذِينَ لَمْ يُقَاتِلُوكُمْ فِي الدِّينِ وَلَمْ يُخْرِجُوكُمْ مِّن دِيَارِكُمْ أَنْ تَبَرُّوهُمْ وَتُقْسِطُوا إِلَيْهِمْ
إِنَّ اللَّهَ يُحِبُّ الْمُقْسِطِينَ

Translation: Allah does not forbid you from those who do not fight you because of religion and do not expel you from your homes - from being righteous toward them and acting justly toward them. Indeed, Allah loves those who act justly. (al-Mumtahanah 60:8)

Sharī'ah not only does not oppose, but also upholds principles of social justice, inclusivity, and equitable resource sharing between the affluent and less privileged.⁴⁶ *Sharī'ah* also endeavors to attain holistic societal well-being where every member of the community is anticipated to experience contentment and a sense of security. Consequently, this concerted effort aims to eradicate or substantially mitigate various forms of adversity and hardship within financial and commercial transactions.⁴⁷ In other words, the higher number of group of people included financially, the higher impact of hardship will be removed from the society.

⁴⁵ Ahcene Lahsasna, "Maqasid Al Shariah in Islamic Economics and Finance" (Second Islamic Seminar on Islamic thought (ISoIT2 2009), Islam & Muslims: issues & challenges, Kuala Lumpur, Faculty of Islamic Studies, National University of Malaysia, UKM, 6-7 October 2009 2009).

⁴⁶ Zamir Iqbal and Abbas Mirakhor, "Financial Inclusion : Islamic Finance Perspective," *Journal of Islamic Business and Management* 2 (06/01 2012), <https://doi.org/10.12816/0004974>.

⁴⁷ Lahsasna, "Short Maqasid Al Shariah in Islamic Economics and Finance."

Indeed, this concept bears semblance to the notion of social solidarity, also recognized as social inclusion. It represents a transformative process aimed at integrating marginalized individuals and groups, often due to their specific identities, into societal activities. This integration empowers them with heightened capacities, accessibility, and opportunities.⁴⁸ It is imperative to distinguish, however, that while financial inclusion primarily focuses on expanding access to financial services, social inclusion encompasses a broader objective of fostering societal equality, which may inherently encompass financial inclusion. The underpinning principles of social inclusion, including the sanctity of contracts, close integration with the tangible economic sector, and the practice of risk-sharing, are perceived to fortify the equilibrium of the ecosystem and amplify social cohesion in accordance with Islamic teachings.⁴⁹

In accordance with Islamic principles and teachings, Allah SWT has ordained the obligatory nature of *zakāt* and has also advocated for the giving of *ṣadaqah*. Additionally, Allah SWT issues a cautionary message in the *Qur`ān* regarding those who neglect their duty to pay zakat, stating:

وَلَا يَحْسَبَنَّ الَّذِينَ يَبْخُلُونَ بِمَا آتَاهُمُ اللَّهُ مِنْ فَضْلِهِ هُوَ خَيْرًا لَّهُمْ بَلْ هُوَ شَرٌّ لَّهُمْ...

Translation: And let not those who (greedily) withhold what Allah has given them of His bounty ever think that it is better for them. Rather, it is worse for them. Their necks will be encircled by what they withheld on the Day of Resurrection. (Āli-`Imran 2:180)

Zakāt is a mandated contribution of a portion of one's wealth and assets to beneficiaries considered worthy. Etymologically signifying "purification," *zakāt* serves to cleanse both the giver and the recipient. All literal interpretations of *zakāt*, encompassing augmentation and purification, pertain to its potential to augment the wealth of the giver, enhance rewards for virtuous deeds, bolster the financial resources of the recipient, or spiritually refine the contributor.⁵⁰ This multi-faceted understanding is deemed valid. From the perspective of the giver, *zakāt* serves to cleanse both their wealth and their heart from the traits of stinginess and self-centeredness. This act embodies a form of spiritual purification alongside financial generosity. Allah SWT said:

خُذْ مِنْ أَمْوَالِهِمْ صَدَقَةً تُطَهِّرُهُمْ وَتُزَكِّيهِمْ بِهَا...

Translation: Take, (O, *Muḥammad*), from their wealth a charity by which you purify them and cause them increase... (Al-Tawbah 9:103)

The verse underscores the obligatory nature of *zakāt*, a practice aimed at purifying the giver from sins and undesirable moral traits, such as a lack of generosity and avarice.⁵¹ Simultaneously, from the perspective of the recipient, *zakāt* serves to cleanse the heart from feelings of sorrow and envy. However, it may also, to some extent, engender resentment towards the affluent for their prosperity. Recipients may question their own entitlement to happiness and attribute their circumstances to ungrateful fate.

⁴⁸ World Bank The World Bank, "Social Inclusion," (4 August 2023). <https://www.worldbank.org/en/topic/social-inclusion#1>.

⁴⁹ Islamic Financial Services Board, "Technical Note on Financial Inclusion and Islamic Finance."

⁵⁰ `Alī bin Sulaimān al-Mardāwī, *al-Inṣāf fī Ma`rifah al-Rājih min al-Khilāf* vol. 6 (Cairo: Hajar li al-Ṭibā`ah wa al-Nashr wa al-Tawzī` wa al-I`lān, 1995). <https://shamela.ws/book/19228/2684>.

⁵¹ `Abd al-Raḥmān bin Nāṣir al-Sa`dī, *Taysīr al-Karīm al-Raḥmān fī Tafṣīr Kalām al-Mannān* (Mu`assasah al-Risālah, 2000).

To address this, Islam advocates for mutual support and assistance among Muslims, encouraging the alleviation of one another's hardships and the sharing of wealth with those in need. This collective responsibility fosters the proliferation of affection and robust social cohesion, aligning with the principles of financial inclusion.

`Abd Allāh bin `Umar narrated that Prophet Muḥammad SAW said:

المُؤْمِنُ أَخُو الْمُؤْمِنِ، لَا يَظْلِمُهُ وَلَا يُسْلِمُهُ، وَمَنْ كَانَ فِي حَاجَةِ أَخِيهِ كَانَ اللَّهُ فِي حَاجَتِهِ، وَمَنْ فَرَّجَ عَنْ مُسْلِمٍ كُرْبَةً فَرَّجَ اللَّهُ عَنْهُ كُرْبَةً مِنْ كُرْبَاتٍ يَوْمَ الْقِيَامَةِ وَمَنْ سَتَرَ مُسْلِمًا سَتَرَهُ اللَّهُ يَوْمَ الْقِيَامَةِ⁵²

Translation: A Muslim is a brother of (another) Muslim, he neither wrongs him nor does hand him over to one who does him wrong. If anyone fulfills his brother's needs, Allah will fulfill his needs; if one relieves a Muslim of his troubles, Allah will relieve his troubles on the Day of Resurrection; and if anyone covers up a Muslim (his sins), Allah will cover him up (his sins) on the Resurrection Day.

In Islamic practice, additional examples include *ṣadaqah*, which may take the form of *nafaqah*, *kaffārah*, *wasiyyah*, and *hibah*. These involve individuals allocating funds to their spouses, children, parents, and deserving relatives to cover their expenses, sustenance, clothing, and other essential needs. Such practices are viewed as mechanisms of social inclusivity, as they provide an equal opportunity for individuals to manage their wealth in a manner that aligns with Islamic principles.

Furthermore, Islam encourages the establishment of *waqf*⁵³, where individuals dedicate their financial resources or assets to charitable endeavors. Since the inception of Islam, *waqf* has played a crucial role in supporting various segments of Muslim society, particularly those in need, such as the impoverished, orphans, and widows. In terms of education, numerous schools and educational institutions have been established to disseminate knowledge throughout the community. Simultaneously, in the realm of healthcare, the development of hospitals, medical research, and the remuneration of healthcare professionals have been facilitated through *waqf* institutions.⁵⁴

In contemporary times, the pursuit of financial inclusion within Islamic practice is manifested through two distinct approaches: integration with Islamic social finance tools, characterized by a conservative stance, and engagement in risk-sharing arrangements, which lean towards productivity. In the former approach, established methods of Islamic social finance instruments such as *waqf*, *zakāt*, or *qarḍ* can be effectively deployed for the direct allocation of resources to underserved individuals, devoid of any stringent conditions. This dynamic process serves to safeguard the entitlements of those possessing limited resources by means of rechanneling income and wealth from those of greater means, thereby establishing a framework for social protection. This initiative not only mitigates poverty but also leads to more expansive

⁵² Muḥammad bin Ismā'īl al-Bukhārī, *Ṣaḥīḥ al-Bukhārī* (Damascus: Dār Ibn Kathīr Dār al-Yamāmah, 1993) 2:862 (Kitāb al-Mazālim, Bāb Lā Yazlim al-Muslim al-Muslim wa Lā Yuslimuh, hadīth no. 2310) and Muslim, *Ṣaḥīḥ Muslim*, 8:18 (Kitāb al-Bir wa al-Ṣilah wa al-Ādāb, Bāb Tahrim al-Zulm, hadīth no. 2580). Ḥadīth text is based on al-Bukhārī.

⁵³ endowment

⁵⁴ al-Mursī al-Sayyid Ḥijāzī, "Dawr al-Waqf fī Taḥqīq al-Takāful al-Ijtīmā'ī fī al-Bī'ah al-Islāmiyyah," *Majallah Jāmi'ah al-Malik `Abd al-`Azīz* (2006).

dimensions of both social and financial inclusion. Furthermore, through the strategic utilization of Islamic social finance instruments, avenues can be diversified to empower the underserved populace by providing financial resources, enabling their active participation and competition in economic activities.⁵⁵

Another instrumental tool promoting financial inclusion and individual well-being is *rahn*⁵⁶ financing. Rahn financing effectively addresses two key factors contributing to financial exclusion, namely religious considerations arising from *Sharī`ah* non-compliance with conventional financial services, and socio-economic barriers, as individuals can pledge non-liquid small assets as collateral.⁵⁷ Additionally, some institutions offer risk-sharing contracts, such as *Mudārabah*⁵⁸ or *Mushārah*⁵⁹, embedded within their financing instruments. These contracts serve as a viable alternative to conventional loans, providing a paramount alternative to traditional debt-based instruments. The essence of risk-sharing lies in the mutual exchange contract among the contracting parties, where risks are distributed proportionately amongst them.⁶⁰ In contrast to conventional debt-based funding, where the entirety of risk falls upon the debtor, thus necessitating a favorable credit rating and inadvertently excluding the impoverished and underserved, risk-sharing based funding allows financial institutions to assume a significant portion of the credit risk alongside these segments of the population.

Besides, the concept of financial inclusion aligns with the *Maqāsid al-Sharī`ah* principles, encompassing *zakāt*, *ṣadaqah*, *waqf*, and other mechanisms, all of which aim to facilitate the equitable circulation of wealth within society.⁶¹ Allah SWT said:

...كَيْ لَا يَكُونَ دُولَةً بَيْنَ الْأَغْنِيَاءِ مِنْكُمْ...

Translation: ...so that it will not be a perpetual distribution among the rich from among you... (al-Hashr 59:7)

al-Dūlah or *al-Rawāj*⁶² depicts the circulation of wealth in the hands of as many people as possible. In this context, the verse emphasizes that the distribution of wealth, whether arising from spoils of war or any other source, should not be limited to a select few. For instance, it should not solely involve the transfer of wealth from a father to his eldest son or from one individual to a close associate.⁶³ The fundamental goals of

⁵⁵ Islamic Financial Services Board, "Technical Note on Financial Inclusion and Islamic Finance."; al-Juwaynī Jamāl and `Abd al-Karīm Qundūz, "Athar al-Tamwīl al-Islāmī `alā al-Shumūl al-Mālī fī Mantīqat al-`Arabiyyah," *Arab Monetary Fund* 8 (2021), <https://www.amf.org.ae/ar/publications/athr-altmwyl-alaslamy-ly-alshmwyl-almaly-fy-almntqt-alrbyt>.

⁵⁶ Islamic pawnbroking

⁵⁷ Azila Abdul Razak and Mehmet Asutay, "Financial inclusion and economic well-being: Evidence from Islamic Pawnbroking (Ar-Rahn) in Malaysia," *Research in International Business and Finance* 59 (2022), <https://doi.org/10.1016/j.ribaf.2021.101557>.

⁵⁸ Profit sharing contract

⁵⁹ Profit and loss sharing contract

⁶⁰ Mahmoud Mohieldin et al., "The Role of Islamic Finance in Enhancing Financial Inclusion in Organization of Islamic Cooperation (OIC) Countries," *The World Bank Islamic Economics and Finance Working Group* 20 (12/01 2011).

⁶¹ Younes Soualhi, "Ta`zīz al-Shumūl al-Mālī min Khilāl al-Tamwīl al-Raqmī al-Islāmī: al-Usus wa al-Mabādi' fī Dau'ī al-Tajribah al-Mālīziyyah," *Majallah ISRA al-Duwaliyyah li al-Māliyyah al-Islāmiyyah* 14 (8 September 2023 2023), <https://doi.org/https://doi.org/10.55188/ijifarabic.v14i1.579>, <https://journal.inceif.org/index.php/ijif-arabic/article/view/579/429>.

⁶² Wealth distribution

⁶³ Muḥammad al-Ṭāhir bin Muḥammad Ibn `Āshūr, *Maqāsid al-Sharī`ah al-Islāmiyyah*, vol. 3 (Qatar: Wizārah al-Awqāf wa al-Shū`un al-Islamiyyah, 2004). <https://shamela.ws/book/17094/1430>.

Shariah in commercial transactions aim to ensure equitable distribution of wealth among members of society and facilitate rightful ownership for those entitled. From the perspective of *Maqāṣid al-Sharī'ah*, it is crucial to uphold the continuous flow of wealth within the market through commerce and transactions while discouraging any form of concentration or monopoly of monetary resources in the hands of a select few individuals.⁶⁴

It should be understood that one of the main pillars of the financial inclusion is *Sharī'ah* compliant products and which are in line with *Maqāṣid al-Sharī'ah*.⁶⁵ The financial inclusion offered by Islamic finance institutions is distinct with the conventional financial institutions as the former has to abide by some supplementary measures in accordance with *Sharī'ah*. For instance, despite the financial inclusion is allowed to more groups of people, it should not be extent for *ḥarām* and impermissible purposes. The financial services offered cannot be utilized to giving fund by the way of financing towards these business or activities.⁶⁶ Table 1 below indicates the comparison between conventional and Islamic financial inclusion.

No	Conventional financial inclusion	Islamic financial inclusion
1.	Adheres to the notion of justice and fairness in accordance with specific goals and objectives	Integrates the concept of justice and fairness from an Islamic perspective within the framework of financial inclusion
2.	Provision of financial services to underserved populations	Encompasses all current tenets of financial and social inclusion, aligned with concepts of social solidarity, mutual cooperation and wealth redistribution inherent in Islamic practices
3.	Aligns with specific organizational goals or frameworks	Necessitates strict adherence to <i>Sharī'ah</i> rules and principles, including a comprehensive assessment of benefits and potential harms

Table 1: Difference between conventional and Islamic financial inclusion

⁶⁴ Lahsasna, "Short Maqasid Al Shariah in Islamic Economics and Finance."

⁶⁵ Soualhi, "Ta'zīz al-Shumūl al-Mālī min Khilāl al-Tamwīl al-Raqmī al-Islāmī: al-Usus wa al-Mabādi' fī Ḍau'ī al-Tajribah al-Mālīziyyah."

⁶⁶ Islamic Financial Services Board, "Technical Note on Financial Inclusion and Islamic Finance."

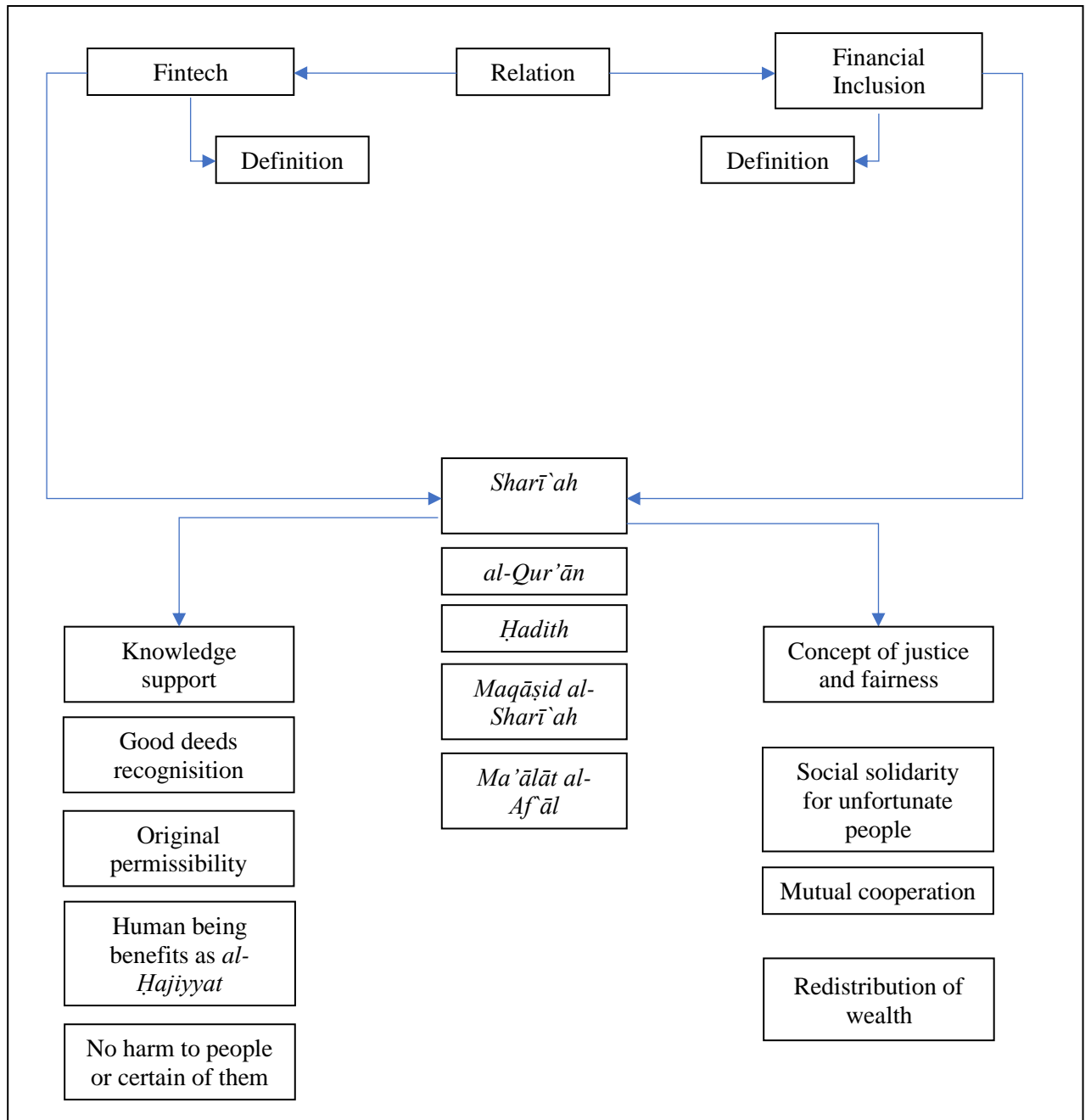


Figure 1: Summary of Shariah point of views on fintech and financial inclusion

CONCLUSION

Based on evidence from *al-Qur'ān*, *Hadīth*, *Maqāṣid al-Sharī'ah* and *Ma'ālāt al-Af'āl*, that, when a practice is not inherently forbidden, and it aligns with principles that endorse knowledge, innovation, virtuous conduct, human welfare, and considerations for potential harms or suffering to humankind, fintech principles are upheld by Islamic tenets. The permissibility of fintech remains valid provided that the stipulated prerequisites mentioned earlier are met in accordance.

Simultaneously, the goals of financial inclusion, aiming to promote justice and equity, demonstrate solidarity towards the less fortunate, foster cooperative ties within society, and ensure proper wealth distribution, harmonize with both Islamic scriptures and jurisprudence. Islamic values and ethics, which have been articulated for over a millennium, exhibit a broader inclusivity within human life compared to the current notions of social and financial inclusion.

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