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Accessibility and Digital Inclusion in Islamic Banking for Persons with Disabilities in Indonesia

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Universitas Nahdlatul Ulama Pasuruan (UNU Pasuruan) leads in transformative education by integrating technology and media literacy to address digital age challenges. This study explores cultural shock among santri in pondok pesantren and their vulnerability to misinformation. Through content analysis, it reveals patterns of cultural shock, hoax dissemination mechanisms, and evaluates media literacy campaigns' effectiveness. Findings show that media literacy enhances critical thinking, aligns traditional Islamic values with digital practices, and supports Sustainable Development Goals (SDGs) related to quality education, reduced inequalities, and inclusive communities. UNU Pasuruan demonstrates how pesantren education can evolve in the digital era while maintaining its cultural essence.

1. INTRODUCTION

The development of digital technology in the financial sector has created vast opportunities to expand global financial inclusion, including in Indonesia. The digital transformation of banking enables faster, more efficient, and more accessible services. However, such modernization is not always inclusive, particularly for vulnerable groups such as persons with disabilities. According to the 2020 Population

Census, the number of persons with disabilities in Indonesia reached approximately 36.26 million, with 17.85% of them having never received formal education (Medcom.id, 2023; GoodStats, 2023). The low level of education contributes to limited financial and digital literacy, which in turn exacerbates the gap in access to modern financial services.

Data from the Financial Services Authority of Indonesia (OJK) highlights this disparity: only 24.3% of persons with disabilities aged 15 and above had a bank account in 2023, compared to 47% among non-disabled groups. Similarly, only 14% of households with members with disabilities had access to credit, compared to 20% of non-disabled households (OJK, 2024). At the national level, however, the financial inclusion index continues to increase, from 76.19% in 2019 to 85.10% in 2022 (SNKI, 2023). Meanwhile, the market share of Islamic banking remains relatively low at around 5.95% of the total banking industry, with a Sharia financial inclusion index of only 12.12% (SNKI, 2023). This data indicates that the digital transformation in the Islamic financial sector has not yet been fully inclusive for persons with disabilities, despite its significant potential.

From the perspective of *maqāṣid al-sharī'ah*, inclusive digital services for persons with disabilities have a strong normative foundation. First, *ḥifẓ al-māl* (protection of wealth) requires safe access to savings and financing so that persons with disabilities do not lose their financial rights. Second, *ḥifẓ al-nafs* (protection of life) and *karāmah insāniyyah* (human dignity) can be realized through universal design that allows persons with disabilities to conduct transactions independently without discrimination. Third, *ḥifẓ al-'aql* (protection of intellect) can be achieved by improving digital literacy and cybersecurity education, thus preventing persons with disabilities from becoming victims of digital fraud. Fourth, *ḥifẓ al-dīn* (protection of religion) can be ensured through transparent digital contracts that guarantee Sharia compliance. Finally, *ḥifẓ al-nasl* (protection of progeny) relates to inclusive access to productive financing and savings, contributing to the welfare of families with disabilities (IFSB, 2019). Accordingly, digital inclusion in Islamic banking is not merely a technical issue but also an ethical and normative mandate within the *maqāṣid* framework.

Internationally, several countries have initiated digital inclusion policies for persons with disabilities that may serve as benchmarks. Bank Negara Malaysia, through its Financial Inclusion Framework 2023–2026 and the Policy Document on Basic Banking Services (2025), emphasizes the obligation of financial service providers to deliver basic services at low cost to vulnerable consumers (BNM, 2023, 2025). The State Bank of Pakistan in 2021 issued the Policy for Financial Inclusion of Persons with Disabilities, which provides detailed guidelines ranging from staff training to the adaptation of banking SOPs (SBP, 2021). In the United Kingdom, the Financial Conduct Authority (FCA) introduced the Consumer Duty & Vulnerable Customers Guidance (2025) to ensure fair treatment of vulnerable customers, as well as the Access to Cash Sourcebook (2024) to guarantee continued access to cash (FCA, 2024, 2025). Moreover, the W3C WCAG 2.2 (2023/2024) has become the international

standard for web and digital application accessibility, with technical criteria directly applicable to banking applications.

In comparison, Indonesia has taken initial steps through the OJK's SETARA Guidelines (2024) as a strategic framework for disability inclusion in financial services. However, Islamic banks in Indonesia still face implementation challenges, including limited accessibility features in applications, low levels of digital security literacy, and infrastructure barriers in regions with limited bandwidth. Therefore, this study aims to analyze the level and determinants of digital inclusion for customers with disabilities in Indonesian Islamic banking, drawing on secondary data from regulators, internal bank reports, and policy documents. This research is expected to contribute both practically—by providing strategic recommendations for inclusive Sharia digital banking design—and theoretically—by enriching the literature on Sharia finance based on *maqāṣid* in the context of digital inclusion.

Based on this discussion, the study focuses on examining the position and practices of Indonesian Islamic banking in digital inclusion for persons with disabilities in comparison with international policies.

2. THEORETICAL FRAMEWORK

This study is grounded in two complementary theoretical perspectives: **digital financial inclusion theory** and the **maqāṣid al-sharī'ah framework**.

1. Digital Financial Inclusion Theory

Digital financial inclusion emphasizes the provision of formal financial services through digital technologies that are affordable, safe, and useful for all segments of society, particularly marginalized groups (Demirgüç-Kunt et al., 2022). The theory highlights four main dimensions: **Access** – the availability of financial services through digital platforms (e.g., mobile banking, e-wallets). **Usage** – the extent to which individuals actively use digital financial services beyond basic transactions. **Quality** – the degree to which services are reliable, efficient, and meet the needs of users. **Impact** – the contribution of financial services to economic empowerment, poverty reduction, and social inclusion.

In the context of persons with disabilities, digital financial inclusion requires not only technological provision but also accessibility features based on universal design and international standards such as WCAG 2.2 (W3C, 2023).

2. Maqāṣid al-Sharī'ah Framework

Maqāṣid al-sharī'ah refers to the objectives of Islamic law, which aim to preserve essential values of human life and welfare (Dusuki & Bouheraoua, 2011). Classical and contemporary scholars emphasize five main dimensions (*al-ḍarūriyyāt al-khams*): preservation of religion (*ḥifẓ al-dīn*), life (*ḥifẓ al-nafs*), intellect (*ḥifẓ al-'aql*), progeny (*ḥifẓ al-nasl*), and wealth (*ḥifẓ al-māl*).

In the digital financial context, three dimensions are particularly relevant: **Ḥifẓ al-nafs (protection of life and security)** – ensuring the safety of users in digital transactions, **Ḥifẓ al-māl (protection**

of wealth) – safeguarding financial assets through Shariah-compliant and secure systems, **Hifz al-'aql (preservation of intellect)** – enhancing financial literacy and empowering rational decision-making for users, including persons with disabilities.

3. Integrative Approach

By integrating digital financial inclusion theory with the *maqāṣid al-sharī'ah* framework, this study establishes a normative-empirical foundation for analyzing the accessibility of Islamic digital banking for persons with disabilities. The integration ensures that financial inclusion is not only assessed from an economic and technological perspective but also from an ethical and justice-oriented dimension, in line with Islamic values of *'adl* (justice) and *ihsān* (benevolence).

3. RESEARCH METHOD

This study adopts a **descriptive-comparative qualitative research design**. The qualitative approach was chosen as it enables the exploration of meanings, interpretations, and the normative relevance of *maqāṣid al-sharī'ah* in the implementation of inclusive digital banking services. The comparative dimension focuses on contrasting Indonesian Islamic banking practices with international policy frameworks on digital financial inclusion for persons with disabilities.

Data Sources

The research relies on **secondary data** obtained from multiple sources, including:

1. **Regulatory reports:** Financial Services Authority of Indonesia (OJK), Bank Indonesia (BI).
2. **Statistical data:** Central Bureau of Statistics (BPS) regarding persons with disabilities and information technology usage.
3. **Bank reports:** Sustainability reports and annual reports of Islamic banks in Indonesia.
4. **International policy documents:**
 - *Financial Inclusion Framework* (Bank Negara Malaysia),
 - *Policy for Financial Inclusion of Persons with Disabilities* (State Bank of Pakistan),
 - *Consumer Duty* and *Vulnerable Customers Guidance* (UK Financial Conduct Authority).

Data Collection

The **documentation method** was employed to collect and review relevant documents, including official statistics, regulatory frameworks, sustainability disclosures, and banking reports. This method allows for systematic identification and extraction of information pertinent to digital inclusion policies and practices.

Data Analysis

Two qualitative analysis techniques were applied:

- **Content Analysis:** Used to examine regulatory policies, sustainability reports, and official banking documents in order to identify how inclusive digital banking is framed and operationalized.
- **Thematic Analysis:** Used to identify, organize, and interpret emerging themes related to barriers, opportunities, and the alignment of Islamic banking services with *maqāṣid al-sharī'ah* principles and international best practices.

a. Research Design

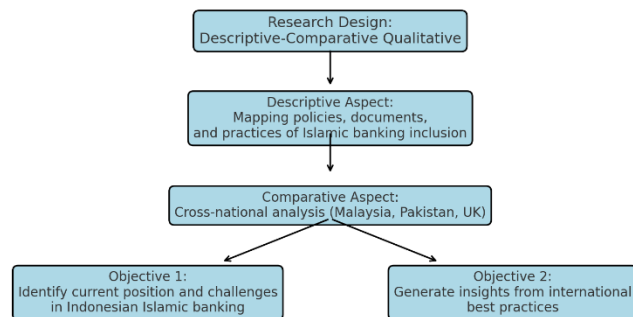


Figure 1: diagram Research Design

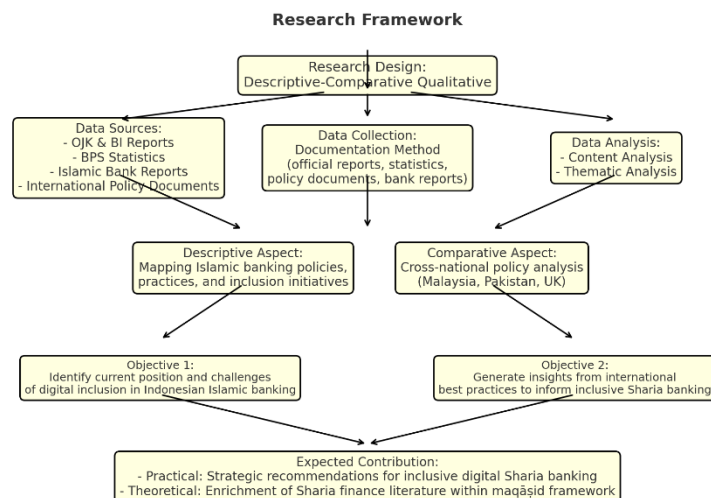


Figure 2: Research Framework

The research framework illustrates the logical flow of this study, starting from the research design, data sources, collection method, analysis techniques, descriptive and comparative aspects, and concluding with the objectives and contributions of the study.

1. Research Design

This study adopts a **descriptive-comparative qualitative design**. The qualitative approach enables in-depth exploration of meanings and interpretations related to digital inclusion in Islamic banking for persons with disabilities, while the comparative element allows cross-national benchmarking with international policy frameworks.

2. Data Sources

The study relies exclusively on **secondary data**, consisting of:

- **Regulatory reports** from the Financial Services Authority of Indonesia (OJK) and Bank Indonesia (BI).
- **Statistical data** from the Central Bureau of Statistics (BPS) regarding persons with disabilities and information technology usage.
- **Islamic bank reports**, including sustainability reports and annual reports.
- **International policy documents**, namely: *Financial Inclusion Framework* (Malaysia), *Policy for Financial Inclusion of Persons with Disabilities* (Pakistan), and *Consumer Duty* (UK FCA).

3. Data Collection

Data are collected through the **documentation method**, which involves systematic review and analysis of official statistics, banking reports, and policy documents. This method ensures that the data used are reliable and verifiable.

4. Data Analysis

Two complementary analytical techniques are employed:

- **Content Analysis** is applied to policy documents, sustainability reports, and regulatory frameworks to identify the representation and operationalization of digital inclusion in Islamic banking.
- **Thematic Analysis** is used to extract, categorize, and interpret recurring themes such as barriers, opportunities, and alignment with *maqāṣid al-sharī'ah* and international practices.

5. Descriptive and Comparative Aspects

The **descriptive aspect** focuses on mapping Indonesia's Islamic banking policies, practices, and digital inclusion initiatives for persons with disabilities. The **comparative aspect** involves cross-national analysis by benchmarking Indonesia's efforts against Malaysia, Pakistan, and the United Kingdom, which have implemented pioneering disability-inclusive financial policies.

6. Research Objectives

Based on this framework, the study pursues two main objectives:

1. To identify the current position and challenges of digital inclusion in Indonesian Islamic banking for persons with disabilities.
2. To generate insights from international best practices that may guide the development of inclusive Sharia-compliant digital banking services.

4. Discussion

1. Growing Digital Access but Still Concentrated

Findings indicate that ownership of digital devices (smartphones) and internet connectivity among persons with disabilities in Indonesia has increased significantly in line with the nationwide internet penetration (APJII, 2023; BPS, 2022). Nevertheless, the utilization of Islamic digital banking services remains concentrated in basic transactions such as balance checking, fund transfers, and bill payments. This resonates with international studies showing that persons with disabilities tend to use digital services at a minimal level due to persistent technical and cognitive barriers (World Bank, 2020).

2. Key Barriers: Accessibility, Literacy, and Infrastructure

The analysis reveals three major barriers to digital inclusion of persons with disabilities in Islamic banking. First, the limited accessibility features in mobile banking applications, which are not fully aligned with international standards such as the *Web Content Accessibility Guidelines (WCAG 2.2)*, reduce usability for visually and hearing-impaired users (W3C, 2023). Second, the low level of digital security literacy exposes persons with disabilities to cyber risks, consistent with findings that vulnerable populations are disproportionately targeted by fraud and scams (GoodStats, 2023). Third, infrastructure limitations—particularly low-bandwidth connectivity in remote areas—reduce the effectiveness of app-based financial services. Similar concerns have been reported in Pakistan and Malaysia, where scholars emphasize the importance of a *multi-channel strategy* to reach marginalized communities (Iqbal & Mirakhor, 2019; Bank Negara Malaysia, 2021).

3. Linkages with Maqāṣid al-Sharīʿah

From the perspective of *maqāṣid al-sharīʿah*, the barriers faced by persons with disabilities are not merely technical but ethical. Limited access to digital financial services restricts their ability to protect wealth (*ḥifẓ al-māl*), while low levels of financial literacy hinder intellectual empowerment (*ḥifẓ al-'aql*). Moreover, the absence of inclusive services can indirectly compromise *ḥifẓ al-nafs* (protection of life), as financial access is increasingly tied to

resilience and livelihood. Thus, digital financial inclusion for persons with disabilities in Islamic banking is not only an efficiency concern but also a normative requirement embedded within the objectives of Shariah (Auda, 2008; Dusuki & Abdullah, 2007).

4. International Comparisons and Lessons Learned

International practices offer several lessons. Malaysia has integrated inclusive finance through its *Financial Inclusion Framework*, emphasizing diverse digital access channels including for persons with disabilities (Bank Negara Malaysia, 2021). The United Kingdom, through the *Financial Conduct Authority (FCA)*, requires financial institutions to adopt *inclusive design* as part of compliance obligations (FCA, 2024). Pakistan, on the other hand, focuses on community-based digital financial literacy programs as part of its *National Financial Inclusion Strategy* (State Bank of Pakistan, 2021). Compared to these countries, Indonesia remains at an early stage, with OJK regulations addressing financial inclusion in general terms but not yet specifically targeting persons with disabilities.

5. Strategic Implications

The convergence of *maqāṣid al-sharī'ah* with international best practices highlights several strategic implications. First, Islamic banks in Indonesia need to integrate *universal design* principles across all digital platforms to ensure accessibility.

Second, strengthening digital financial literacy for persons with disabilities requires collaboration with disability organizations and community-based approaches. Third, regulators should establish minimum accessibility standards in digital banking services to ensure equity and compliance with global benchmarks. Finally, embedding inclusive design and literacy programs within Islamic banking practices not only enhances social well-being but also aligns with the ethical imperative of *maqāṣid al-sharī'ah* to maximize public benefit (*jalb al-maṣlaḥah*) and reduce exclusion.

3. Conclusion

This study highlights the critical role of digital financial inclusion in Islamic banking for persons with disabilities in Indonesia. While digital access has increased significantly, its use remains concentrated in basic transactions, reflecting structural barriers in accessibility, literacy, and infrastructure. The findings show that these barriers not only hinder financial participation but also contradict the objectives of *maqāṣid al-sharī'ah*, particularly in terms of wealth protection (*ḥifẓ al-māl*), intellectual development (*ḥifẓ al-'aql*), and the safeguarding of life (*ḥifẓ al-nafs*). International comparisons demonstrate that countries such as Malaysia, the United Kingdom, and Pakistan have taken more advanced steps in institutionalizing inclusive design, setting regulatory standards, and promoting community-based financial literacy. In contrast, Indonesia remains at an early stage, where regulatory frameworks emphasize general

financial inclusion but lack a specific focus on disability-inclusive digital banking.

Strategically, this research suggests three priority areas for strengthening inclusive Islamic banking in Indonesia:

1. **Integration of universal design principles** to ensure accessibility across all digital platforms.
2. **Strengthening digital financial literacy** through partnerships with disability organizations and community-based initiatives.
3. **Establishing minimum accessibility standards** by regulators to align with international benchmarks and fulfill the ethical mandate of Shariah.

In conclusion, advancing digital inclusion for persons with disabilities in Islamic banking is not only a matter of service efficiency and regulatory compliance but also a normative imperative of Shariah. By addressing these gaps, Islamic banking institutions can simultaneously enhance financial equity, strengthen social protection, and fulfill their ethical responsibility to promote inclusive economic development.

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