


# Digital Transformation of Islamic Finance Through Open Banking: A Qualitative Content Analysis

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## ABSTRACT

While the global financial sector has rapidly embraced data openness to enhance financial inclusion, the Islamic finance industry continues to face a significant technological adoption gap. Open banking, as a new paradigm in the financial industry, presents a substantial opportunity to bridge this gap through data transparency and inter-institutional collaboration enabled by Application Programming Interfaces (APIs). However, its implementation within Islamic finance requires strict alignment with Sharia principles such as justice, transparency, and trust. This study aims to examine how open banking can be ethically and effectively integrated into the Islamic financial system. Employing a descriptive approach and an inductive-based Qualitative Content Analysis (QCA), data were collected through literature review, policy document analysis, and in-depth interviews with regulators, academics, and Islamic finance practitioners. The open and axial coding processes revealed four central themes: (1) the ethics of Sharia-Compliant data exchange, (2) strategic collaboration between Islamic banks and fintech firms, (3) regulatory and fiqh-related challenges in the digital context, and (4) the potential of Sharia-based financial inclusion. The findings indicate that open banking can catalyze digital transformation in Islamic finance, provided it is supported by adaptive fatwas, clear regulatory frameworks, and enhanced digital and Sharia literacy. The integration of open banking and Islamic finance is not merely a matter of technological adoption, but a transformative process that involves values and structures, demanding an interdisciplinary approach. Their synergy holds the potential to create a financial system that is inclusive, transparent, and aligned with the objectives of Maqashid al-Sharia.

### Article Info

*Received: July 26, 2025*  
*Revised: August 14, 2025*  
*Accepted: Sept 19, 2025*  
*Online: Oct 19, 2025*

### Keywords:

*open banking, Islamic financial inclusion, regulation, financial technology*

### JEL Classification:

G21, G28, O16, Z12, O33

## 1. Introduction

Digital transformation has fundamentally changed the global financial landscape, introducing Open Banking as a new paradigm that facilitates the secure and controlled exchange of financial data through Application Programming Interfaces (APIs) (Junior et al., 2021; Leong & Gardner, 2021; Stefanelli & Manta, 2023). This paradigm shift is driven by the urgent need for faster, efficient, and secure transactions, along with the rising digital expectations of millennials and the Z generation. The widespread adoption of open banking has created new dynamics in the financial market, not only by decoupling the production and distribution processes

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of financial services, but also by intensifying the competition between traditional financial institutions and fintech companies (Oh & Chung, 2024). With significant projected growth in global transaction value, from USD 57 billion in 2023 to USD 300 billion by 2027, this technology confirms its potential as a significant catalyst for innovation in the global financial sector. Indonesia, as one of the fastest-growing fintech markets in Southeast Asia, is proactively integrating this trend to maintain competitiveness amid the evolving digital finance landscape.

Indonesia and Malaysia emerged as ideal case studies, as both have strong Islamic finance ecosystems and thriving fintech markets. In Indonesia, QRIS (Quick Response Code Indonesia Standard) transactions surged by 226.54% to reach IDR 42 trillion by 2024, with more than 50 million users and 32.7 million merchants. Meanwhile, Malaysia controls approximately 25% of national banking assets through 16 Islamic banks, accounting for more than 10% of global Islamic finance assets. The growth of Islamic fintech in Malaysia is projected to reach RM 893.5 billion (approximately USD 179 billion) by 2026, with an annual growth rate of 17.9%, which is higher than that of conventional fintech (Muhammad, 2023). This phenomenon is not only relevant to conventional banking but also presents a strategic opportunity for Islamic banking to integrate open banking. This aligns with Shariah principles, such as transparency, fairness, and financial ethics (I. Aini et al., 2022; Sayedahmed et al., 2024). The adoption of open banking in the Islamic financial sector is a crucial step in addressing the needs of the modern market, particularly in enhancing financial inclusion and expanding access to Shariah-compliant services (Hasanah & Istikomah, 2023).

Bank Indonesia has implemented the National Standard for Payment Open API (SNAP) since 2021, paving the way for broader integration of the payment system. In line with this, the Islamic finance industry, following the merger of Bank Syariah Indonesia (BSI) in 2021, demonstrates a strong commitment to digitalization, aiming to expand the reach of Islamic services, despite the increasing financial inclusion index. The gap is still significant in the MSME and rural segments, presenting an opportunity for digital-based Islamic services. Meanwhile, as a leader in Islamic Finance, Bank Negara Malaysia (BNM) has proactively encouraged open banking and issued a regulatory framework that supports Islamic fintech innovation. Most major Islamic banks have adopted the Open API initiative, and Malaysia's Islamic fintech ecosystem continues to grow dynamically, with a focus on increasing financial inclusion.

The confluence of open banking and Islamic finance has generated tremendous synergy in promoting Islamic financial inclusion. The integration of the two enables the production of more innovative, efficient, and affordable products and services. For example, through open banking, Islamic financial institutions can access comprehensive customer data, enabling the planning of financing products that are better suited to individual needs (I. Aini et al., 2022). However, realizing this potential is not without challenges, as the different regulatory frameworks and operational standards between the two sectors can be a significant barrier. In addition, the lack of in-depth understanding of how open banking technologies can be adapted to meet the specific needs of the Islamic finance sector is another obstacle (Sayedahmed et al., 2024).

In recent years, research on the role of technology in the banking sector has increased significantly. The study by Tahudeen and Rofiat (2024) suggests that

investment in technology, including Artificial Intelligence (AI), is essential for enhancing operational efficiency and customer interaction in the banking sector. This finding aligns with Paramitha & Fasa's study (2024), which states that banking digitization encompasses not only mobile banking but also all automated banking activities, confirming the urgency of Islamic bank adaptation. In addition, research on the use of blockchain in financial services by Wati & Yazid (2023) showed that the adoption of new technologies can improve financial inclusion in Indonesia, with perceived usefulness and ease of use influenced by interface and social influence. India's experience with the Unified Payment Interface (UPI), a public digital payment system based on open banking, also shows great potential in expanding access to credit for underserved segments (Alok et al., 2024).

Studies on open banking and Islamic finance in the field of technology have shown rapid development in recent years. However, research that comprehensively integrates the two within a discursive and practical framework is still rare. Most of the differences, potential meeting points, and synergy mechanisms between the API-based data exchange architecture and Maqasid Shariah principles. In fact, mapping problems that encompass regulatory, technical, and normative dimensions is necessary to formulate a financial inclusion model that is ethical, adaptive, and able to reach underserved segments of society by conventional systems.

Recent literature reveals a significant gap in research, specifically the limited systematic mapping of the compatibility between open banking regulatory frameworks, both global and regional, such as PSD2 in Europe and SNAP in Indonesia, with Sharia compliance standards (Dinar Standard, 2024). The existing analyses tend to be normative and fragmented, thus failing to produce a holistic regulatory framework that thoroughly integrates Maqasid Shariah principles into the operationalization of open banking technology. In addition, several studies have noted the lack of discussion regarding the innovation of open banking-based Islamic products and services. The literature has not explored the utilization of Open API infrastructure to develop inclusive Islamic financial products, such as Islamic microfinance, digital zakat and waqf, and halal crowdfunding platforms, aimed at the unbanked and underserved segments, including Sharia-based MSMEs and low-income communities. This gap is important to address, considering that the development of these products is a crucial element in achieving Maqasid Shariah, especially in maintaining the sustainability of wealth (*hifz am-mal*) and promoting social welfare.

Mapping the drivers and barriers of open banking adoption in the context of Islamic finance is also partial. Previous research tends to highlight general aspects, such as technological readiness or limited human resources. However, it has not thoroughly examined the role of variations in fiqh interpretation, the level of digital literacy among Muslim communities, and differences in financial culture between countries in determining the success of implementation. Similarly, the issue of digital ethics and the relevance of Maqashid Shariah in the practice of financial data exchange have barely been explored. However, both are important prerequisites for innovation to remain within the corridors of Islamic values.

To address this gap, this research poses four key questions that form the foundation of the analysis. First, the extent to which open banking principles can be operationalized in harmony with Sharia principles from both technical and ethical

aspects. Second, what kind of regulatory framework and technological infrastructure are needed to implement Shariah-compliant open banking? Third, how open banking contributes to the expansion of financial inclusion in Islamic financial institutions. Fourth, what types of innovative products and services have the potential to be born from the integration of the two?

While open banking is recognized as a transformative force in banking digitalization, previous research findings on Islamic fintech show that Islamic banks' synergies are actually enormous; the implementation of open banking can pave the way for a more open, personalized, and inclusive integration of Islamic financial services. However, barriers such as strict licensing requirements, low technological literacy among the Muslim community, limited human resources who understand Sharia principles, as well as public perceptions that cannot clearly distinguish between Sharia and conventional fintech, may reduce its impact.

Coupled with increasingly fierce technological competition, public education strategies and regulatory clarity are needed to ensure open banking catalyzes inclusive and sustainable Islamic fintech growth (Hiyanti et al., 2020). Therefore, this research contributes to the development of an integrative model that combines the open banking regulatory framework with Maqashid Shariah, thereby filling the gap in the literature that has discussed the two topics separately. Practically, the resulting framework is expected to serve as a strategic reference for regulators, financial institutions, and technology providers in designing an Islamic financial ecosystem that is adaptive, ethical, and responsive to the needs of contemporary society.

## **2. Literature Review**

### **2.1 Open Banking and Policy Issues**

Open banking is a financial services paradigm that enables financial institutions to securely share customer data through open Application Programming Interfaces (APIs) with explicit customer consent (Junior et al., 2021; Xie & Hu, 2024). This approach marks a shift in the banking model from a closed system to a collaborative ecosystem that involves third-party providers (TPPs) in the development of innovative services. The Bank for International Settlements (BIS) defines an Open API as a public, standards-based interface that enables secure data exchange between banking systems and fintech applications, supports cross-platform interoperability, and ensures integration with existing banking systems (Premchand & Choudhry, 2018). This technology enables various services, including cross-bank account aggregation, digital payment initiation, and customer instruction-based transaction management.

Historically, the concept of modern open banking gained momentum after the implementation of the European Union's Payment Services Directive (PSD) in 2007, which was later updated to PSD2 in 2018. This regulation requires banks to provide access to account data to licensed TPPs with customer consent, along with Regulatory Technical Standards (RTS) as technical guidelines for security and interoperability (Oh & Chung, 2024). In the UK, the Competition and Markets Authority is adopting Open API standards. At the global level, similar approaches are adopted in Australia, Singapore, Brazil, and ASEAN countries. In Indonesia, the development of open banking is included in the Indonesian Payment System Blueprint (BSPI) 2025, which contains data, technical, security, and governance standards.

The theoretical framework of open banking can be understood through the perspective of open innovation, which includes inbound innovation (utilization of

external ideas or technologies, such as collaboration with fintech startups) and outbound innovation (channeling internal bank capabilities to be utilized by third parties) (Huizingh, 2011; Lee & Jae, 2018; Soloviev, 2018). This perspective emphasizes that the successful integration of open banking requires synergy between regulation, technological infrastructure, and consumer protection. In the context of Islamic finance, the development of open banking requires special attention to the compatibility of sharia principles, including the prohibition of *riba*, *gharar*, and *maisir*, as well as compliance with DSN-MUI fatwas related to digital financial services.

Previous studies have highlighted the legal, business, and technological dimensions of open banking, particularly in relation to regulatory compliance and API-based business models (Junior et al., 2021; Palmieri & Nazeraj, 2021). Studies in Europe suggest PSD2 can increase competition, encourage innovation, and expand financial inclusion. Research in developing countries suggests the potential of open banking to reach the unbanked and underserved, highlighting that success depends on robust security infrastructure and transparent data governance (Carrière-Swallow et al., 2022). However, in Indonesia, academic studies on open banking are still limited, and its integration with the Islamic finance ecosystem has not been widely explored.

Several international studies discuss the role of Account Information Service Providers (AISPs) and Payment Initiation Service Providers (PISPs) as key innovations resulting from open banking regulations. AISPs integrate and present customer financial information for risk management, product marketing, and service recommendations. Meanwhile, PISP enables account-to-account (A2A) based payment transactions without direct involvement of the recipient's bank account. In Korea, these services are known as "My Data" and "My Payment", while in Indonesia, similar concepts are being explored within the framework of BSPI 2025.

Despite the rapid growth in the adoption of open banking, research gaps remain related to its application in the Islamic financial system. First, there is no Open API governance model specifically designed to ensure Shariah compliance, including consumer consent mechanisms, dispute resolution, and risk management. Second, empirical studies measuring the impact of open banking on Islamic financial inclusion, particularly for MSMEs and institutions managing *zakat* or *waqf*, are still limited. Third, the lack of comparative research between countries makes it difficult to identify best practices for the Islamic financial ecosystem in Indonesia.

With this conceptual framework, this research not only positions open banking as a technological innovation in the financial sector but also as a strategic instrument to strengthen an inclusive and sustainable Islamic financial ecosystem. The integration of open innovation principles and Sharia compliance provides a solid foundation for collaboration between Islamic banks, regulators, and third-party providers. This approach is also in line with global trends that place data sharing and interoperability as the key to digital banking transformation.

## 2.2 Islamic Finance and Development

Islamic finance is understood as a financial system that operates based on Sharia principles derived from the Qur'an, Hadith, and the *Ijtihad* of scholars, emphasizing the values of social justice, ethics, and sustainability (Junaidi, 2023). Practices containing *riba* (interest), *gharar* (excessive uncertainty), and *maisir* (gambling) are prohibited, while profit-sharing-based financing schemes such as *mudharabah* and

musyarakah are encouraged as the main instruments. Every transaction must be based on tangible assets to avoid speculation and ensure economic stability. The concept has been widely adopted in the Middle East, Southeast Asia, and Africa. It has been recognized globally through instruments such as sukuk and Islamic banking products, which contribute to the expansion of financial inclusion, economic growth, and an equitable financial order (Suseno & Fitriyani, 2018).

The emergence of the Islamic financial system is rooted in a combination of religious-ideological, empirical-pragmatic, and political factors (Mahri et al., 2021). Religiously, the application of Islamic finance is seen as part of the way of life of Muslims, considering that the conventional system is considered contrary to the principles of sharia. From both the empirical and political perspectives, following the independence of Muslim countries in the mid-20th century, there was a push to achieve economic independence and manage public funds independently, particularly in oil-producing countries. One important milestone was the establishment of the Islamic Development Bank (IDB) in 1973 in Jeddah, which functioned as a development bank to empower the development of the Organization of Islamic Cooperation (OIC) countries. Subsequent into modern financial innovations, including financial technology (fintech) and open service models such as open banking (Aziz, 2022).

The concept of open banking that emphasizes data openness, transparency, and interoperability has fundamental compatibility with Islamic financial values, such as justice ('adl) and trustworthiness (Fanani et al., 2025; Usanti, 2022). The principle of justice demands equitable distribution of benefits, while trust emphasizes the protection of customer data and trust. In this context, an open banking ecosystem based on explicit consent and data security mechanisms can be aligned with trust as an ethical foundation. The conceptual framework of open banking and Islamic finance integration combines openness (transparency, interoperability) with fairness (non-exploitation) and trustworthiness (data protection) to produce innovative and inclusive Islamic digital financial services, in line with Maqashid Shariah objectives.

Previous studies have shown that open banking has the potential to increase financial inclusion by providing wide access to data and services, and to encourage competition in the banking sector (Leong & Gardner, 2021). Meanwhile, research on Islamic financial inclusion emphasizes the importance of service compatibility with religious principles as a key factor in user acceptance (KNEKS, 2024). In developing countries, the adoption of digital financial services, including e-wallets and open APIs, has facilitated access in remote areas. However, this success still requires strengthening financial literacy, governance, and customer protection.

While the conceptual link between open banking principles and Islamic financial values has been recognized, research gaps persist in terms of technical implementation, the design of Islamic API governance models, and the measurement of their impact on Islamic financial inclusion. Few studies have examined how open innovation principles can be aligned with Sharia compliance at the technological and regulatory architecture levels. Additionally, there is no comprehensive evaluation framework that measures the effectiveness of open banking in overcoming the barriers faced by the unbanked and underserved in Muslim communities. Cross-jurisdictional studies comparing open banking policies across countries with Islamic financial systems are also scarce. This integration is projected to encourage digital Islamic

financial inclusion, maximize data utilization for sustainable product innovation, improve operational efficiency, and strengthen consumer protection in the era of digital transformation (KNEKS, 2024; Usanti, 2022).

### 3. Research Method

This research employs a descriptive qualitative approach, utilizing an inductive Qualitative Content Analysis (QCA) method. The QCA approach was chosen because it can produce an accurate and in-depth description of the research topic, which is still minimally studied, namely the integration of open banking and Islamic finance (Schreier, 2024). The use of an inductive approach is considered relevant, given that prior knowledge related to this phenomenon is still limited or fragmented (Cho & Lee, 2014), allowing findings to be constructed based on the perspectives and direct experiences of the informants.

The primary data of this study were obtained through in-depth interview with a total of 6 key informants selected using purposive sampling technique, namely one regulator consisting of Bank Indonesia (BI)/Otoritas Jasa Keuangan (OJK), one bank practitioner consisting of Islamic banking managers or employees, two fintech players consisting of developers and managers of API-based Islamic fintech product, and two academics consisting of lecturers and researchers who have publications in the field of Islamic finance and financial technology. Secondary data were obtained from policy documents such as the Indonesian Payment System Blueprint 2025, industry research reports, academic publications, and relevant media articles.

**Table 1.** Primary and Secondary Data Criteria

Type	Criteria	Example
<b>Primary</b>	Interview data, observation of sharia fintech practices, informant insights.	Interview regulators, Islamic bank practitioners, fintech practitioners, academics Platform observations.
<b>Secondary</b>	Official documents, scientific articles, regulations, DSN-MUI fatwa, industry report.	PSD2, SNAP-BI, Fatwa No.116/DSN-MUI/2017, OJK reports, academic publications.

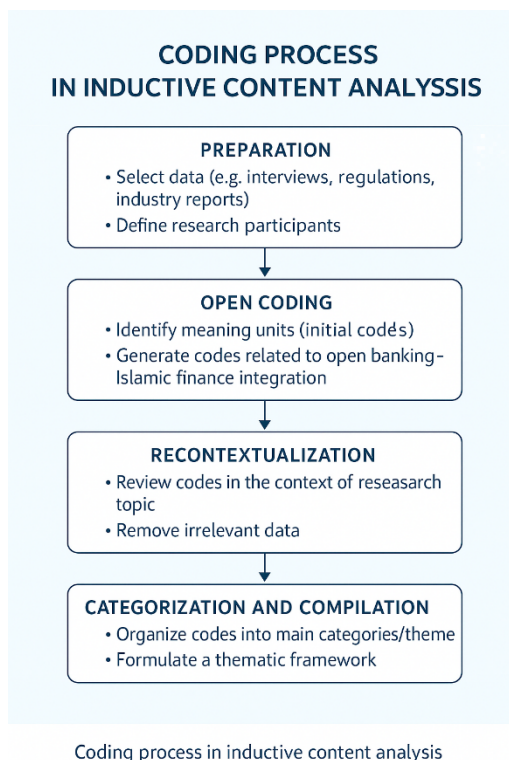
The data analysis procedure follows the QCA stage, comprising three main steps: open Coding, axial Coding, and selective Coding (categorization). Each step is described as follows:

1. In open coding, the researcher carefully read each interview transcript and broke down the raw data into small units of meaning, which were then coded. These initial codes marked important issues related to the integration of open banking and Islamic finance.
2. Axial Coding. After opening the coding, the researcher grouped the codes into interrelated thematic categories. Axial Coding focuses on linking categories with subcategories, then reorganizing the categorized data. In this stage, a more abstract conceptual structure is formed.



3. Categorization (Selective Coding). Similar initial codes and subcategories were combined into a final central theme. For example, all codes related to technology, regulations, and Shariah compliance aspects were organized into conceptually meaningful broad categories. This stage is reductive, simplifying complex data into a focused structure.

**Figure 1.** Operational Stage of Content Data Analysis



#### 4. Result

This research aims to formulate an integration pattern between open banking and the Islamic financial system that is adaptive and in accordance with Sharia principles. To achieve this goal, a qualitative content analysis method is employed, utilizing a coding table as a systematic tool from the initial coding stage to the conclusion-drawing process. This method was employed because the integration between open banking and Islamic finance remains a developing discourse and lacks an established theoretical framework. Therefore, the researcher focuses on exploring the findings sourced from primary and secondary data to form themes and analytical categories (Fanani et al., 2025).

Information gathering involved six informants who were purposively selected based on their relevance and capacity to the research topic, namely one regulator, one Islamic practitioner, two sharia-based fintech players, and two academics in the field of Islamic economics and financial technology. This composition of informants provides diverse perspectives related to the integration of open banking with Islamic finance, both in terms of policy, technical, and academic.



The data analysis process was carried out in three main stages, namely open coding, recontextualization, and categorization & compilation. Additionally, the triangulation process was conducted through document validation, expert discussion, and member checking to ensure the validity and consistency of the findings (Safitri et al., 2022). The coding process involved identifying and grouping pieces of data into several categories based on the meaning and interrelationships between the codes that emerged. Data reduction is a primary objective in this stage, which involves simplifying complex qualitative data into more structured and thematic content groups (Aulia et al., 2020).

As the analysis progressed, new codes were developed to capture richer findings. The initial coding scheme underwent a process of reflection and revision to provide a more mature framework. The categories were formed based on the formulation of the research questions as well as theoretical constructs related to the principles of open banking, financial inclusion, and Maqashid Shariah in Islamic finance.

#### **4.1 Preparation for the Application of Inductive Qualitative Content Analysis (QCA)**

Various types of text data can be used in the QCA method. In this study, researchers utilized text data in the form of semi-structured interview transcripts and document analysis, as described by Cho & Lee (2014). The selection of this format aims to capture the deep and authentic understanding of the informants regarding the integration of open banking with Islamic financial principles.

Data were collected from key informants involved in the Islamic finance and financial technology sectors, including Shariah practitioners, regulators, as well as relevant fintech players (Secinaro et al., 2021). The sampling technique used was purposive sampling, with the main criteria being understanding and direct involvement in open banking integration initiatives, which consisted of 6 informants and documents that supported the research. Interview data were collected through direct and quoted interviews with regulators, Islamic bank practitioners, sharia-based fintech players, and academics in the fields of Islamic economics and financial technology. Other information was obtained from various documents related to open banking and Islamic finance.

The following table presents raw data excerpts that represent the most relevant parts of interviews with key informants, including regulations, Islamic bank practitioners, fintech players, academics, and Islamic financial technology developers. In addition, official documents such as Bank Indonesia regulations (SNAP), DSN-MUI fatwas, World Bank reports, academic publications, and zakat/waqf management reports were also analyzed as secondary data sources to support triangulation and enrich the field findings. All these data were analyzed using the QCA approach inductively to systematically identify the main themes emerging from the textual content.

**Table 2.** Raw Data Table

No.	Source	Raw Data
1.	Document – Regulator	SNAP must meet quality if service, security, interconnection and interoperability.
2.	Interview – Regulator	“Open banking is based on the principle of transparency”
3.	Interview – Islamic Bank Practitioner	“API platform enables expansion of Islamic microfinance services”
4.	Interview – Fintech Practitioner	“The importance of fintech and banks connecting with each other for comprehensive services.”
		“The use of crowdfunding allows investment to be channel into halal projects.”
5.	Interview – Sharia Academician	“A testing ground is needed of test fintech services that comply with MUI fatwa.”
		“Digitalization of zakat and waqf can expand sharia services.”
6.	Document (SNAP BI)	SNAP BI Emphasizes open API but does not yet contain provisions on sharia aspects.
7.	Document (Fatwa DSN-MUI)	There is no specific fatwa on open banking, so the clarity of sharia law needs to be studied.
8.	Document (World Bank Report)	Digital financial technology can improve financial inclusion, including for Muslims.
9.	Document (Academic Publication)	Collaboration between Islamic banks and fintech opens access to financial services for underserved communities.
10.	Document (Sharia Zakat Report)	Digital services for zakat can increase transparency and participation.

#### 4.2 Open Coding Stages

Open coding is an initial process in qualitative data analysis that aims to break down raw data into smaller and more concrete units of meaning (Schreier, 2024). From the previous raw data, each quote was analyzed to find units of meaning and labeled with codes (open coding). The codes used reflected themes that emerged in the informants' narrative, such as “data transparency” and “consumers as data owners”. The following table shows the meaning units and associated codes.

**Table 3.** Open Coding Table

No.	Meaning Unit	Code
1.	SNAP must fulfilling quality of service, security, interconnection and interoperability	Data ethics; Data owner consumers; Interoperability
2.	Open Banking is based on the principle of transparency, which is in accordance with sharia principles.	Data transparency; Information disclosure
3.	API Platform enables expansion of Islamic microfinance service	Islamic microfinance: Islamic digital transformation
4.	The importance of fintech and banks connecting with each other for comprehensive services. The use of crowdfunding allows investments to be halal projects.	Interoperability; Innovative collaboration Crowdfunding
5.	A test bed is needed to test fintech services that comply with MUI's fatwa. Digitalization of zakat and waqf can expand sharia services.	Sandbox syariah Digitalization of zakat and waqf
6.	SNAP BI Emphasizes Open API but does not yet contain provisions on sharia aspects.	Regulation is lagging behind
7.	There is no specific fatwa on open banking so the clarity of sharia law needs to be studied	Fatwa is not yet available; Clarity of digital law
8.	Digital financial technology can improve financial inclusion, including for Muslims.	Financial inclusion
9.	Collaboration between Islamic banks and fintech opens access to financial services for underserved communities	Bank – fintech partnership; Innovative Collaboration
10.	Digital services for zakat can increase transparency and people's participation.	Digitalization of zakat and waqf; Application - based financial education

Some of the codes that emerged at this stage demonstrated a strong emphasis on the importance of ethical data use and user consent in open banking. Informants emphasized that the principles of mutual consent and trustworthiness should be the basis for all digital data exchange, in line with Sharia values. Based on these

statements, the researcher assigned codes such as “Dara transparency”, “Consumers as data owners”, “Controlled information disclosure”, and “Data ethics in sharia”.

Other codes illustrate the need for collaborative between Islamic financial institutions and fintech companies. In this context, codes such as “Bank-fintech partnership”, “Shariah service interoperability”, “Innovative collaboration”, and “Shariah digital transformation” emerged. These collaborations are considered key to expanding access to Shariah-compliant services, particularly for underserved segments of society.

In addition, several codes illustrate legal and regulatory challenges, such as “Fatwa not yet available”, “Digital law unclear”, “Regulation lagging”, and “Need sharia sandbox”. This reflects that although open banking is technologically adoptable, its implementation still faces legal obstacles due to the unavailability of detailed regulations and fatwas on API-based transactions. Regulations such as BI SNAP are still considered sharia-neutral, thus requiring an interpretive approach from Islamic finance authorities.

Finally, a significant theme that emerged from open coding was the opportunity to increase financial inclusion. Open banking is considered to encourage services such as “Islamic microfinance”, “Digitalization of zakat dan waqf”, “Halal crowdfunding”, and “Application-based financial education”. This potential is significant in the context of Maqashid Shariah, namely protecting wealth and expanding public benefits. These codes are the basic for the formation of thematic categories in axial coding, which will be explained at a later stage.

#### **4.3 Stage of Reconceptualization**

The recontextualization stage aims to link initial coding results with the broader social, normative, and systematic contexts in the integration of open banking with Islamic finance. Based on the results of open coding, it is clear that the aspect of “Data ethics” is the primary concern in the informants’ narratives. Codes such as “Data transparency”, “Consumers as data owners”, and “Data ethics in sharia” not only reflect concerns about the technical aspects of data exchange, but also indicate the need to translate sharia principles such as *ridha*, *amanah*, and *hifz al-mal* into digital system design. In this context, recontextualization leads to an understanding that personal data protection is not just a regulatory obligation, but a moral and spiritual responsibility in the Islamic financial ecosystem.

Codes that reflect the strategic partnership between Islamic financial institutions and fintech show that this digital synergy is not only instrumental but also transformative. Codes such as “Innovative collaboration”, “Sharia service interoperability”, and “Sharia digital transformation” indicate that collaboration is not just an efficiency strategy, but a strategic step to expand the reach of Islamic economic propaganda. In this recontextualization, open banking is viewed as a means to expand access to Islamic financial services for segments that have been underserved, including MSMEs, informal economic actors, and digitally savvy Muslim youths.

On the other hand, several codes highlight normative and legal obstacles that require in-depth examination, such as “Fatwa is not yet available,” “Obscurity of digital law,” and “Regulations are lagging,” which reflect the regulatory lag in addressing the reality of API-based fintech. Recontextualization in this case underscores the importance of an *ijtihad* approach from Islamic finance authorities

in reading new phenomena. Regulations such as BI SNAP, which are currently sharia-neutral, require a more progressive normative interpretation to avoid becoming an obstacle to innovation. Herein lies the urgency of developing a sharia sandbox as a controlled and fatwa-compliant experimental space.

Financial inclusion is also a central dimension in recontextualization. Findings such as “Digitalization of zakat and waqf,” “halal crowdfunding,” and “Islamic microfinance” not only demonstrate the technical potential of open banking but also align with Maqashid Shariah, particularly in the aspects of tahqiq al-maslahah (bringing benefits) and hifz al-mal (protecting wealth). In this framework, open banking is not only an instrument of financial innovation but also a means of social justice and economic empowerment for the ummah. This projection reinforces the position of open banking as an integral part of a future Islamic financial architecture that is more inclusive, transparent, and responsive to the community's needs.

**Table 4.** Open Coding and Axial Coding Table

Open Coding	Axial Coding
<ul style="list-style-type: none"> <li>• Data Transparency</li> <li>• Consumers as data owners</li> <li>• Controlled information disclosure</li> <li>• Data ethics in sharia</li> </ul>	Sharia Data Exchange Ethics
<ul style="list-style-type: none"> <li>• Bank-fintech partnership</li> <li>• Shariah service interoperability</li> <li>• Innovative collaboration</li> <li>• Shariah digital transformation</li> </ul>	Sharia-Fintech Strategic Collaboration
<ul style="list-style-type: none"> <li>• Fatwa not yet available</li> <li>• Obscurity of digital law</li> <li>• Regulations are lagging behind</li> <li>• Sharia sandbox needed</li> </ul>	Regulatory Challenges and Fiqh Digital
<ul style="list-style-type: none"> <li>• Sharia microfinance</li> <li>• Digitalization of zakat and waqf</li> <li>• Halal Crowdfunding</li> <li>• App-based financial education</li> </ul>	Sharia-based Financial Inclusion Potential

#### 4.4. Stages of Categorization and Complications

The process of data analysis, conducted through the stages of open coding, axial coding, and selective coding, resulted in four main thematic categories that align with the conceptual framework of open banking integration within the Islamic financial system. The four categories are: (1) Ethics of Sharia data exchange; (2) Strategic-collaboration of Sharia-fintech; (3) Regulatory challenges and Fiqh digital; (4) Potential for Sharia-based financial inclusion. Each category represents a consolidation of various codes that share conceptual proximity, contextual relevance, and are related to the research objectives, while reflecting the complexity of the relationship between open banking technology innovation and Shariah compliance principles.

The first category, *Shariah Data Exchange Ethics*, focuses on Islamic moral principles in the management and exchange of digital financial data. Codes such as “Data transparency”, “Data ownership by consumers”, “Data ethics in Sharia perspective”, and “Controlled disclosure” demonstrate that open banking in the context of Islamic finance cannot be measured solely in terms of efficiency or the speed of information exchange. Instead, the system must be designed to ensure the fulfillment of the values of *ridha* (willingness) and *amanah* (trust), which are the foundation of interaction in Islam. This view emphasizes that the success of open banking integration does not lie solely in technical performance, but also in its compatibility with *Maqashid Shariah*, particularly in safeguarding *maslahah* (the greater good) and protecting individual rights.

The second category, *Shariah-Fintech Strategic Collaboration*, highlights the importance of synergy between Islamic financial institutions and financial technology (fintech) providers to build an innovative, inclusive, and shariah-compliant digital services ecosystem. Codes such as “Bank-fintech partnership”, “Sharia service interoperability”, “Innovative collaborative”, and “Sharia digital transformation” signify that the success of open banking is primarily determined by its ability to build bridges of trust between sharia authorities, technology providers, and Muslim consumers. This collaboration also has the potential to become a platform for cross-sector knowledge exchange, enabling the development of technological innovations without compromising religious values or distributive justice in financial services.

The third category, *Regulatory Challenges and Fiqh Digital*, reflects the obstacles faced in implementing Sharia-based open banking, both from structural and normative aspects. Codes such as “Fatwa vacuum”, “Digital law vagueness”, “Lagging regulations”, and “Islamic law readiness” underline the regulatory gap that needs to be bridged. This highlights the urgency of contemporary *ijtihad* that is responsive to technological developments and the application of regulatory sandboxes to test new service models on a limited scale before full implementation. With this approach, the risk of non-compliance with Shariah can be minimized, while allowing for adaptation by financial institutions and regulators.

The fourth category, *Sharia-based Financial Inclusion Potential*, emphasizes the strategic role of open banking in expanding financial access for Muslim communities, particularly for the unbanked and underserved populations. Codes such as “Islamic microfinance”, “Digitalization of zakat and waqf”, “Halal crowdfunding”, and “Application-based financial education” show that Open API technology can be a medium for Islamic economic *da’wah* that reaches marginalized communities. This aligns with *Maqashid Shariah* in the aspects of *hifz al-mal* (protecting wealth) and *tahqiq al-maslahah al-’ammah* (achieving public good), while supporting the national financial inclusion program based on the value of social justice.

Taken together, these four thematic categories form a comprehensive analytical framework for understanding the interaction between open banking technological innovation and Shariah compliance. The findings from open banking structured conceptual mapping also provide a foundation for formulating public policies, industry collaboration strategies, and product innovations that are safe, efficient, and aligned with Islamic values. This framework is expected to be a tangible

contribution to the development of academic literature and practice in integrating open banking into the Islamic financial system in a sustainable manner.

**Table 5.** Thematic Analysis Results of Open Banking and Islamic Finance Integration

Main Categories	Key Code	Description of Findings	Relevance to Maqasid Sharia
<b>Sharia Data Exchange Ethics</b>	Data transparency; Data ownership by consumers; Data ethics in sharia perspective; Controlled information disclosure.	Indicates that the management and exchange of digital financial data must be based in the value of pleasure and trust, not only on technical efficiency.	<i>Hifz al-`ird</i> (protecting honor) and <i>hifz al-mal</i> (protecting wealth)
<b>Strategic Collaboration-Fintech</b>	Bank-fintech partnership; Interoperability of Islamic services; Innovative collaboration; Islamic digital transformation.	Illustrate the importance of synergy between Islamic financial institutions and technology providers to build a Shariah-compliant and inclusive innovation ecosystem.	<i>Tahqiq al-maslahah</i> (achieving public good)
<b>Regulative Challenges and Fiqh Digital</b>	Fatwa vacuum; Digital law vagueness; Regulatory lag; Islamic law readiness.	Highlighting structural and normative barriers that require contemporary ijtiḥad responses as well as regulatory sandbox testing.	<i>Hifz al-din</i> (safeguarding religion) and <i>hifz al-mal</i>
<b>Sharia-based Financial Inclusion Potential</b>	Islamic microfinance; Digitalization zakat and waqf; Halal crowdfunding; Application-based financial education.	Demonstrate open banking opportunities to reach marginalized communities and expand Islamic financial services digitally	<i>Hifz al-mal</i> and <i>tahqiq al-maslahah</i>



## 5. Discussion

### 5.1 Integration of Open Banking and Islamic Finance

Digital transformation in the Islamic banking industry has significantly accelerated through the adoption of Open APIs, which enable secure and standardized data exchange between bank" Open Application Programming Interface and third parties such as fintech. With customer consent, this system enables innovative collaborative spaces that support more personalized, efficient, and responsive Islamic financial service providers. Global initiatives, such as the Payment Services Directive 2 (PSD2) in Europe and similar measures in Southeast Asia, have driven the adoption of APIs within the financial sector, including among Islamic banks (Stefanelli & Manta, 2023). This approach encourages Islamic financial institutions to expand their outreach, especially to the unbanked and underserved segments, while maintaining sharia principles such as fairness ('adl) and trustworthiness (Hassany & Pambekti, 2022).

This study found that integrating Open API technology in Islamic finance requires strengthening the ethical framework for sharia-based data exchange. The principles of transparency, customer ownership of data, and limitations on data utilization are the primary concerns. The thematic category "Shariah data exchange ethics" emerged from the importance of fatwas that set halal standards for such digital practices. In the context of Maqashid Shariah, information security and fairness should be guaranteed through an explicit consent mechanism and technology-based audits.

Collaboration between banks and Islamic fintech is also a key driver in digital finance innovation. Content analysis results indicate that strategic partnerships, such as those between Ethis, Wahid Invest, and GlobalSadaqah, have leveraged APIs to deliver services including halal investment, Islamic crowdfunding, and the digitalization of zakat and waqf (Irum Saba et al., 2019; Mukhibad et al., 2023). Codes such as "Interoperability of Sharia service" and "Digital transformation of Sharia" are categorized under the theme "Sharia-Fintech Strategic Collaboration," which illustrates the shift of Sharia business models toward being more open and digitally inclusive.

However, this integration faces challenges in terms of regulation and digital fiqh certainty. Many Islamic institutions have yet to receive adequate fiqh guidance in implementing the open system. Codes such as "Fatwa not yet available" and "Regulations lagging" reflect the need for legal and fiqh clarity before full adoption of open banking technology. This uncertainty also impacts the slow pace of innovation as institutions are reluctant to take risks without Sharia legitimacy (Hasanah & Istikomah, 2023). In this context, the Islamic sandbox emerges as a strategic solution to pilot digital financial products under the simultaneous supervision of regulators and fiqh authorities (Alaburo & Bolanle, 2024).

Open banking is also understood as an opportunity to rebuild a more automated and transparent Islamic finance model. Concepts such as smart contracts and blockchain enable the automation of Sharia contracts and accountable digital auditing, in line with the findings of Junior et al. (2021), which suggest that open banking can increase the trust and accountability of transactions. The "Digital sharia compliance" category underscores the importance of technology adoption that

remains rooted in Islamic values such as *sidq* (honesty), *istiqamah* (sustainability), and *amanah* (responsibility).

Literacy is an additional challenge in this process. Education on data protection, Sharia principles in technology, and digital skills among consumers and scholars remains low. Codes such as "Customer education" and "Sharia digital literacy" highlight the need for collaborative strategies among regulators, academia, and industry to enhance community capacity. As emphasized by Carriere-Swalow et al. (2022) and Plasik & Kotkowski (2022), digital and legal literacy are key foundations in creating a financial ecosystem that is fair, inclusive, and resilient to disruption.

By combining the power of technology with Sharia principles, open banking can serve as the foundation of a future Islamic financial architecture that is more competitive, ethical, and socially oriented. However, the success of this integration requires consistent normative alignment. Therefore, interdisciplinary research involving jurists, financial technology engineers, and regulators is needed so that this transformation is not only adaptive but also contextual to the needs of the ummah and the challenges of the time.

## 5.2 Implications of the Integration of Open Banking and Islamic Finance

The research contributes to the expansion of the Maqashid-based framework by proposing a new dimension of digital compliance. This framework places Maqashid Shariah as a core principle of Islamic finance, not just a regulator of individual behavior, but as a system-level assessor that assesses the advantages of the integration design between open banking and Islamic financial services. Within this framework, Maqashid plays a role in evaluating the extent to which the digital system can protect wealth (*hifz al-mal*), uphold distributive justice (*'adl*), and promote public welfare (*tahqiq al-maslahah*). This aligns with Jasser Auda's multidimensional model, which emphasizes interrelatedness, openness, and multidimensional values (Sutisna, 2020).

The principles of openness, data transparency, and customer control inherent in open banking have become standard best practices in the global banking industry following the implementation of PSD2. However, the novelty of this research lies in the application of Maqashid-based assessment to measure and design open banking integration in the context of Islamic finance. Not only does this study resonate with Islamic values, but it also examines whether the technical structure of open banking (e.g., API interoperability, consent mechanisms, and data governance) systematically fulfills Maqashid objectives at the infrastructure level. Not just individual transactions. As such, it goes beyond previous studies that tend to stop at the compatibility of technical principles with Sharia moral values (Abazeed, 2023; R. Aini & Kamilah, 2022).

The QCA results reveal that Muslim consumers' acceptance of open banking technology increases significantly if the system demonstrates data security integration in line with Maqashid in the protection and enhancement dimensions. For example, data encryption and complete customer control over data (*ridha*) are not only positioned as security features, but as *hifz al-mal* instruments that can be assessed and audited. From this perspective, it creates a feedback loop that ensures

Maqashid values are achieved through continuous evaluation of the system, not just initial compliance.

The main challenges identified include the lacuna of fatwas related to API services, the vagueness of digital law, and epistemological resistance from some traditional scholars. From a maqashid system perspective, these challenges reflect system gaps that need to be closed through cross-disciplinary engagement between fiqh and technology engineers from the design stage. This aligns with the findings of Surbekti & Nurzaman (2024), who emphasized the need for preemptive fatwa design based on multidisciplinary collaboration.

The practical implications include three strategic steps (1) Establishment of a Shariah Regulatory Sandbox under the coordination of OJK and DSN-MUI to test new digital services, (2) Development of halal API technical standards covering shariah audit procedures and digital contract authentication, and (3) Cross-disciplinary capacity building between scholars, developers, and regulators to ensure maqashid values are integrated in the technical design, these three steps are designed so that open banking systems integrated with Islamic finance are not only normatively compatible, but also structurally superior in fulfilling maqashid objectives at the system level.

## **6. Conclusion**

This research explores the integration between open banking and Islamic finance using Qualitative Content Analysis (QCA), identifying four main themes: (1) Sharia-based data exchange ethics, (2) Strategic collaboration between Islamic banks and fintech, (3) Regulatory challenges and digital jurisprudence, and (4) Sharia-based financial inclusion potential. The findings suggest that open banking, when aligned with maqashid shari'ah, can be a catalyst for inclusive, ethical, and innovative digital transformation in Islamic finance.

This research introduces the Maqashid-based Banking Integration Framework, which positions Maqashid Shariah as a system evaluator for aspects such as openness, transparency, collaboration, and regulatory readiness. This approach builds upon previous studies that emphasize efficiency and transparency by incorporating ethical, collaborative, and regulatory dimensions into the evaluation of the system.

Practical implications include the establishment of a Shariah Regulatory Sandbox, the development of technical standards for halal APIs, and cross-disciplinary capacity building for regulators, scholars, and developers. These steps are design to ensure that the proposed integration is not only normatively compliant, but also structurally superior in fulfilling maqashid shariah objectives at the system level.

Research limitations include the limited number of informants, the focus on the Indonesian context, and the time-bound nature of the data. Therefore, future research is recommended to conduct cross-country studies, develop maqashid-based integration assessment instruments, and conduct a trial of halal API service implementation for zakat, waqf, and microfinance.

## 7. References

- Abazeed, K. A. (2023). The Impact of Open Banking on the Islamic Financial Industry. *Finance Research Letters*, 58. <https://doi.org/10.1016/j.frl.2023.104300>
- Aini, I., Nasution, A. M., Kurniawan, F., & Lubis, R. H. (2022). Fintech Opportunities And Challenges In The Sharia Banking Industry In Pandemic Times. *Al-Masharif: Jurnal Ilmu Ekonomi Dan Keislaman*, 10(2), 143–157. <https://doi.org/10.24952/masharif.v10i2.6514>
- Aini, R., & Kamilah, K. (2022). Mengeksplorasi Strategi Pemulihan Ekonomi Dan Keuangan Sumatera Utara: Kasus Open Banking Di Era Digitalisasi Dalam Kerangka Maqashid Syariah. *Al-Masraf (Jurnal Lembaga Keuangan Dan Perbankan)*, 7(2), 33–50.
- Alaburo, T. A., & Bolanle, R. T. (2024). Artificial Intelligence (AI) in The Banking Industry: A Review of Service Areas and Customer Service Journeys in Developing Economies. *Business & Management Compass*, 68, 19–43. <https://doi.org/10.56065/9hfvrq20>
- Alok, S., Ghosh, P., Kulkarni, N., & Puri, M. (2024). *Open Banking And Digital Payments* : <http://www.nber.org/papers/w33259%0ANATIONAL>
- Aulia, B. N., Rinuastuti, B. H., & Saufi, A. (2020). Penerapan Analisis Konten Pada Peran Wirausahawan Sosial Muda Dalam Upaya Pengembangan Pariwisata Halal Yang Berkelanjutan. *Jurnal Magister Manajemen Unram Vol. 9, No 4a. Desember 2020*, 9(4), 27–38.
- Aziz, A. (2022). *Fintech dalam keuangan islam* (Issue September).
- Carrière-Swallow, Y., Haksar, V., & Patnam, M. (2022). India's Approach to Open Banking: Some Implications for Financial Inclusion. *Open Banking*, 235–256. <https://doi.org/10.1093/oso/9780197582879.003.0012>
- Cho, J. Y., & Lee, E. H. (2014). Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *Qualitative Report*, 32. <https://doi.org/10.46743/2160-3715/2014.1028>
- Dinar Standard. (2024). Global Islamic Fintech Report 2023. *Global Islamic Fintech Report*, 56. <https://cdn.salaamgateway.com/special-coverage/islamic-fintech-2021/Global-Islamic-Fintech-Report-2021-Executive-Summary.pdf>
- Fanani, Z., Bustanul Arifin, & Fadwa Aly Elsayed Mohamed. (2025). Monetisasi Data, Sentralisasi QRIS, dan Tantangan Integrasi Nilai Syariah dalam Sistem Pembayaran Digital Indonesia. 5(1), 21–54. <https://doi.org/10.30762/al-muhasib.v5i1.2388>
- Hasanah, M., & Istikomah, I. (2023). Digitalization Of Sharia Banking In Improving Financial Inclusion In Indonesia. *Proceeding International Conference on Economics, Business and Information Technology (Icebit)*, 4, 892–895. <https://doi.org/10.31967/prmandala.v4i0.848>
- Hassany, E. E. J. P., & Pambekti, G. T. (2022). Review on the Application of Open

- Banking in Sharia Banking: an Swot Analysis. *El-Amwal*, 5(1), 69. <https://doi.org/10.29103/el-amwal.v5i1.6676>
- Hiyanti, H., Nugroho, L., Sukmadilaga, C., & Fitrijanti, T. (2020). Peluang dan Tantangan Fintech (Financial Technology) Syariah di Indonesia. *Jurnal Ilmiah Ekonomi Islam*, 5(3), 107–118. <https://doi.org/10.29040/jiei.v5i3.578>
- Huizingh, E. K. R. E. (2011). Technovation Open innovation : State of the art and future perspectives. *Technovation*, 31(1), 2–9. <https://doi.org/10.1016/j.technovation.2010.10.002>
- Irum Saba, Rehana Kouser, & Imran Sharif Chaudhry. (2019). Fintech and Islamic Finance-challenges and Opportunities. *Review of Economics and Development Studies*, 5(4), 581–590. <https://doi.org/10.26710/reads.v5i4.887>
- Junaidi. (2023). Ekonomi Digital Dan Sistem Keuangan Islam. In *Academia.Edu*. [https://www.academia.edu/download/59472532/Sistem\\_Ekonomi\\_Islam20190531-69000-1n6duuf.pdf](https://www.academia.edu/download/59472532/Sistem_Ekonomi_Islam20190531-69000-1n6duuf.pdf)
- Junior, C. A. D., Kissimoto, K. O., & Laurindo, F. J. B. (2021). *It Enabling Factors In A New Industry Design : Open*. 0–17. <https://doi.org/10.5748/18CONTECSI/PSE/ITM/6728>
- KNEKS. (2024). *Strategi Nasional: Literasi dan Inklusi Ekonomi dan Keuangan Syariah Indonesia*.
- Lee, I., & Jae, Y. (2018). Fintech : Ecosystem , business models , investment decisions , and challenges. *Business Horizons*, 61(1), 35–46. <https://doi.org/10.1016/j.bushor.2017.09.003>
- Leong, E., & Gardner, J. (2021). Open Banking in the UK and Singapore: Open Possibilities for Enhancing Financial Inclusion. *Journal of Business Law*, 2021(5), 424–453. <https://doi.org/10.2139/ssrn.4194256>
- Mahri, J. W., Nur, C. M., Al, R., Arundina, T., Widiastuti, T., Mubarak, F., Fajri, M., & Nurasyiah, A. (2021). *Ekonomi pembangunan islam*.
- Muhammad, M. (2023). Islamic Fintech: Accelerating the Financial Inclusion Agenda in Malaysia. *Nomura Journal of ASIAN Capital Markets*, 8.
- Mukhibad, H., Nurkhin, A., Anisykurlillah, I., Fachrurrozie, F., & Jayanto, P. Y. (2023). Open innovation in shariah compliance in Islamic banks – Does shariah supervisory board attributes matter? *Journal of Open Innovation: Technology, Market, and Complexity*, 9(1), 100014. <https://doi.org/10.1016/j.joitmc.2023.100014>
- Oh, S., & Chung, G. (2024). *New Sustainable Fintech Business Models Created by Open Application Programming Interface Technology : A Case Study of Korea ' s Open Banking Application Programming Interface Platform*.
- Palmieri, A., & Nazeraj, B. (2021). Open Banking and Competition: an Intricate Relationship. *Competition Law (in Pandemic Times): Challenges and Reforms*, 5, 217–237. <https://doi.org/10.25234/eclic/18822>

- Premchand, A., & Choudhry, A. (2018). Open Banking & APIs for Transformation in Banking. *2018 International Conference on Communication, Computing and Internet of Things (IC3IoT)*, 25–29.
- Safitri, D., Saufi, A., & Sakti, D. P. B. (2022). Penerapan Analisis Konten Kualitatif Pada Studi Revisit Intention Wisatawan Muslim Ke Lombok Dalam Konteks Pariwisata Halal. *Jmm Unram - Master of Management Journal*, 11(4), 308–320. <https://doi.org/10.29303/jmm.v11i4.740>
- Sayedahmed, N., Khalili, M., & Anwar, S. (2024). Reality and Challenges of Adapting Financial Technologies in Islamic Banks: An Overview of The Arab Countries. *International Journal of Innovative Research in Multidisciplinary Education*, 03(04), 666–672. <https://doi.org/10.58806/ijirme.2024.v3i4n21>
- Schreier, M. (2024). Qualitative Content Analysis in Practice. In *Qualitative Content Analysis in Practice*. <https://doi.org/10.4135/9781529682571>
- Secinaro, S., Radwan, M., Calandra, D., & Biancone, P. (2021). Halal certification impact on firms' corporate social responsibility disclosure: Evidence from the food & beverage sector in Italy. *Corporate Social Responsibility and Environmental Management*, 28(4), 1376–1385. <https://doi.org/10.1002/csr.2161>
- Stefanelli, V., & Manta, F. (2023). Digital Financial Services and Open Banking Innovation: Are Banks Becoming 'invisible'? *Global Business Review*, 1–18. <https://doi.org/10.1177/09721509231151491>
- Suseno, P., & Fitriyani, Y. (2018). Role of Islamic Finance Development to Financial Inclusion: Empirical Study in Islamic Banking Countries. *Jurnal Ekonomi & Keuangan Islam*, 4(1), 1–8. <https://doi.org/10.20885/jeki.vol4.iss1.art1>
- Sutisna, D. (2020). *Panorama Maqashid syariah*.
- Usanti, T. P. (2022). the Principle of Amanah in the Utilisation of Consumers' Personal Data and Information in Open Banking. *Journal of Central Banking Law and Institutions*, 1(1), 119–140. <https://doi.org/10.21098/jcli.v1i1.2>
- Xie, C., & Hu, S. (2024). Open banking: an early review. *Journal of Internet and Digital Economics*, 4(2), 73–82. <https://doi.org/10.1108/jide-03-2024-0009>