

QRIS and Digital Consumer Protection: A Forensic Legal Study of the Risks of Data Misuse and Electronic Disputes

Mely Yana¹, Anggraeny Arief², Dinaryati Rahim³

^{1,2,3} Faculty of Law, Universitas Muslim Indonesia, Indonesia

Surel Koresponden: Melyyana.fh22@gmail.com

Abstrak: Penelitian ini bertujuan untuk mengetahui bagaimana eksistensi Quick Response Code Indonesian Standard (QRIS) dalam mewujudkan efisiensi pembayaran dalam perspektif hukum perbankan di Indonesia dan untuk mengetahui bentuk perlindungan hukum terhadap konsumen dalam penggunaan QRIS apabila terjadi sengketa transaksi. Penelitian ini menggunakan metode penelitian normatif, menggunakan sumber bahan hukum primer, sekunder dan tersier dengan teknik pengumpulan bahan hukum melalui studi kepustakaan dan kemudian dianalisis secara preskriptif dengan menggunakan perspektif Hukum Perbankan dan Hukum Perlindungan Konsumen. Pembaharuan penelitian ini terletak pada analisis yuridis yang tidak hanya mengkaji aspek regulasi semata, tetapi juga menghubungkannya dengan dampak praktis terhadap efisiensi sistem pembayaran dan perlindungan konsumen secara terintegrasi. Hasil penelitian ini menemukan bahwa eksistensi QRIS memiliki landasan yuridis yang kuat dan berlapis dalam mewujudkan efisiensi pembayaran dalam perspektif Hukum Perbankan di Indonesia. Bentuk perlindungan hukum terhadap konsumen dalam penggunaan Quick Response Code Indonesian Standard (QRIS) apabila terjadi sengketa transaksi yaitu melalui perlindungan hukum preventif dan perlindungan hukum represif. Penelitian ini memberikan sejumlah rekomendasi kepada beberapa pihak, Bank Indonesia serta OJK perlu meningkatkan perlindungan hukum dengan merumuskan regulasi QRIS yang lebih harmonis. Pemerintah perlu mendorong pengembang infrastruktur digital didaerah terpencil untuk mewujudkan digitalisasi keuangan nasional yang merata dan inklusif.

Kata Kunci: Quick Response Code Indonesian Standard (QRIS); Digitalisasi Keuangan Nasional; Perlindungan Konsumen.

Abstract: This study examines the role of the Quick Response Code Indonesian Standard (QRIS) in enhancing payment efficiency from the perspective of Indonesian banking law, and identifies the forms of legal protection available to consumers in cases of transaction disputes involving QRIS. Employing a normative research method, the study draws on primary, secondary, and tertiary legal sources, collected through literature review and analyzed prescriptively using frameworks from banking law and consumer protection law. Its novelty lies in a juridical analysis that integrates regulatory aspects with their practical impacts on payment system efficiency and consumer protection. The findings reveal that QRIS is supported by a robust, multi-layered juridical foundation under Indonesian banking law, promoting payment efficiency. Consumer legal protection in transaction disputes is provided through both preventive and repressive measures. The study offers recommendations, including for Bank Indonesia and the Financial Services

Authority (OJK) to harmonize QRIS regulations for stronger consumer safeguards, and for the government to bolster digital infrastructure in remote areas to foster equitable national financial digitalization.

Keywords: QRIS; Payment efficiency; Banking law; Consumer protection;



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A. INTRODUCTION

The fourth industrial revolution has brought fundamental changes to the global financial landscape, with the digitalization of payment systems emerging as a significant catalyst for change. Technological innovations based on Quick Response Code (QR) systems have not only transformed transaction patterns but also expanded financial access to segments of the population previously excluded from traditional banking services. Data from the Bank for International Settlements indicates that in 2022, global digital transactions reached approximately 1.5 billion transactions per second, reflecting increased economic efficiency and the decline in cash dominance worldwide. In Indonesia, financial digitalization has evolved in response to the dynamics of the growing digital economy, in line with the national vision of Indonesia Emas 2045 and the digital economy strategy for 2021–2024. Bank Indonesia reports that digital transactions will reach approximately 60% of all national transactions by 2023, supported by internet penetration reaching 77.02%, or more than 215 million users (APJII, 2023). This situation creates broader opportunities for financial inclusion, particularly for rural communities and the unbanked population. To address the fragmentation of the national payment system characterized by the proliferation of various e-wallet platforms and QR codes, Bank Indonesia introduced the Indonesian Quick Response Code Standard (QRIS) through Regulation Number 21/18/PBI/2019.[3] This innovation recorded a transaction volume of around IDR 1,000 trillion throughout 2023 through a simple scan-and-pay mechanism, while expanding access to financial services for more than 100 million previously unbanked individuals.(Saraswati, 2026)

However, despite these achievements, QRIS implementation presents complex legal challenges. The acceleration of digital transactions increases vulnerability to personal data breaches and cyber fraud, while ambiguity regarding legal responsibilities between banking institutions and payment service providers remains unresolved.[4] This issue is reinforced by a 2024 survey conducted by the Financial Services Authority, which found that approximately 25% of consumer complaints related to digital payments originated from the use of QRIS.(Krisma et al., 2023)

From a normative perspective, several legal instruments have provided the foundation for the operation of digital payment systems, including the Banking Law (Law No. 7 of 1992 as amended by Law No. 10 of 1998), which mandates prudential principles and fiduciary obligations; Law No. 8 of 1999 concerning Consumer Protection; the Electronic Information and Transactions Law; and POJK No. 12/POJK.03/2021. However, the harmonization between these regulations and the evolving QRIS innovation standards still needs to be strengthened, particularly in balancing operational efficiency with consumer rights protection. As emphasized by Mohamad Fadhli in *Banking Law in Indonesia*, the efficiency of digital transactions must be accompanied by adequate protection mechanisms, as the absence of such protection can exacerbate gaps in legal justice in the banking sector. This perspective is particularly relevant given the inherent trade-off between stringent identity verification procedures for consumer protection and the need for smooth and fast transaction processes, an ongoing regulatory dilemma that must be systematically addressed. Previous studies have tended to examine QRIS in a fragmented manner, with separate focuses on technical operations, its effectiveness for micro, small, and medium enterprises (MSMEs), or personal data protection, without integrating these aspects into a comprehensive legal framework. (Samosir et al., 2024)

To address this gap, this study adopts a normative-doctrinal approach to analyze the legal implications of QRIS in Indonesian banking law, while simultaneously formulating applicable policy recommendations to strengthen the 2025 Indonesian Payment System Blueprint and improve regulatory harmonization between Bank Indonesia, the Financial Services Authority, and relevant ministries. Based on this, this study formulates the following research questions: (1) How does the existence of the Indonesian Quick Response Code Standard (QRIS) contribute to payment efficiency from a banking law perspective in Indonesia? and (2) How is legal protection provided to consumers in the use of QRIS in the event of transaction disputes? The urgency of this research is increasingly evident when seen from the development of practices in the field. In various regions, QRIS has become the main payment instrument in the retail, transportation, tourism, places of worship, education, health, and public service sectors. The presence of QRIS allows micro-businesses and traditional traders to accept non-cash payments without investing in expensive equipment such as conventional EDC machines. This condition accelerates the transformation of the people's economy towards a more formal, documented, and integrated system with financial institutions.

However, it's important to understand that digital payments doesn't always solve all economic problems. In many cases, MSMEs still face limited digital literacy, a lack of understanding of service fees, unfamiliarity with complaint procedures, and low business account security capabilities. Consequently, when transactions fail, funds are held, or accounts are blocked due to suspected suspicious activity, businesses often lack the appropriate redressal channels. This situation demonstrates that technological innovation without strengthening legal education has

the potential to create new exclusions in the form of digital vulnerability. From a banking law perspective, QRIS also changes the contractual relationship between banks and customers.(Saraswati, 2026) While in conventional transactions, legal relationships tend to be limited to fund storage and transfer services, in the QRIS ecosystem, these relationships expand to include real-time data processing, digital identity authentication, integration with third parties, and the use of shared infrastructure. Thus, the concept of bank responsibility no longer rests solely on the security of customer funds but also encompasses system security, data integrity, and continuity of electronic services. Another relevant issue is the need for proof in QRIS transaction disputes.(Krisma et al., 2023) In practice, many disputes arise because consumers claim to have made a payment, while the merchant hasn't received a notification or the funds haven't been recorded. In such situations, transaction evidence no longer consists of physical receipts, but rather screenshots, system logs, reference codes, server metadata, and settlement records between institutions. The problem is, not all consumers understand the evidentiary power of these electronic documents. Therefore, it is necessary to strengthen procedural legal norms and dispute resolution mechanisms that recognize digital evidence effectively, quickly, and cost-effectively.(Samosir et al., 2024)

On the other hand, the development of cross-border QRIS (QRIS) payments has opened a new dimension in international banking law. Payment cooperation between Indonesia and ASEAN countries expands the benefits of QRIS for tourists and cross-border traders. However, this integration also raises issues of legal jurisdiction, transnational consumer protection, exchange rate conversion, cross-border data security standards, and supervisory coordination between monetary authorities. Without a clear legal framework, consumers may experience difficulties obtaining redress if disputes involve providers from different countries. This research is also important in the context of national development because an efficient payment system directly impacts economic productivity. Fast transactions reduce transaction costs, accelerate business capital turnover, and increase financial transparency. The government benefits by expanding the economic database, which can be used for fiscal policy, social assistance distribution, and MSME development. However, these benefits can only be sustained if the public has high trust in the security and legal certainty of the digital payment system.

Academically, this research is expected to broaden the discourse on Indonesian banking law from the traditional paradigm to the digital banking law paradigm. Banks in the modern era function not only as intermediary institutions but also as digital trust institutions that maintain the reliability of public transactions. Therefore, the prudential principle needs to be reinterpreted to encompass cyber risk management, algorithmic governance, information technology audits, and data-based consumer protection. Furthermore, this study makes a methodological contribution because it attempts to synthesize various legal regimes that have been operating partially, namely banking law, consumer protection law, cyber law, personal data protection law, and state administrative law. In regulatory practice, overlapping authority between authorities or regulatory gaps in certain areas often occur. Using a normative-doctrinal

approach, this study seeks to assess the vertical and horizontal consistency between laws and regulations governing QRIS. Furthermore, the resulting recommendations are expected to encourage the establishment of an integrated national consumer redress system. This mechanism could include a single complaint portal, maximum response time standards, refund obligations in certain cases, digital mediation, and transparency in the status of report handling. Such a system is crucial because the speed of dispute resolution in digital transactions is as crucial as the speed of the transactions themselves. Therefore, research into the legal implications of QRIS is not only relevant from the perspective of payment technology development, but also strategic in maintaining the stability of the national financial system, expanding economic inclusion, and upholding justice for consumers and businesses. Without adaptive regulations, innovation can create new inequalities and erode public trust in the banking system. Conversely, if supported by a responsive legal framework, QRIS has the potential to become a model for Indonesia's digital payment transformation that is efficient, secure, inclusive, and globally competitive.

B. METHOD

This study employs a normative legal research approach, focusing on the existence of the Quick Response Code Indonesian Standard (QRIS) within Indonesia's banking law system, particularly in relation to transaction efficiency and consumer protection. Three approaches are applied simultaneously. (Hehanussa et al., 2023) First, the statute approach is utilized to examine regulations related to QRIS and the payment system, including the Banking Law, Law Number 8 of 1999 on Consumer Protection, and the Electronic Information and Transactions Law, as well as regulations issued by Bank Indonesia and the Otoritas Jasa Keuangan. Second, the conceptual approach is employed to construct legal arguments based on doctrines of financial digitalization and consumer protection. Third, the analytical approach is applied to systematically interpret legal norms within the regulatory framework governing digital payment systems. The legal materials used in this study consist of primary legal materials in the form of statutory regulations; secondary legal materials, including academic literature, scientific journals, and official publications from relevant institutions; and tertiary legal materials as supporting references. The collection of legal materials is conducted through library research, encompassing stages of inventory, classification, systematization, and documentation. These materials are then analyzed prescriptively to provide a critical assessment, as well as normative recommendations regarding the adequacy and future development of the legal framework governing QRIS.

C. DISCUSSION

1. The Existence of the Quick Response Code Indonesian Standard (QRIS) in Realizing Payment Efficiency from the Perspective of Banking Law in Indonesia.

The existence of the Quick Response Code Indonesian Standard (QRIS) as a digital payment instrument in Indonesia is supported by a comprehensive and structured legal framework within the hierarchy of national legislation. This juridical foundation can be elaborated as follows:

a) Primary Legal Basis.

First, Law Number 23 of 1999 concerning Bank Indonesia, as amended several times, most recently by Law Number 6 of 2009. Article 1 paragraph (6) of this law explicitly defines the payment system and emphasizes the importance of regulating payment processes within the national economy.[9] Provisions under Chapter V grant authority to Bank Indonesia to regulate and maintain the smooth operation of the payment system, including the power to establish payment standards, require reporting from payment system service providers, and license such providers. Second, Electronic Information and Transactions Law (Law Number 11 of 2008 as amended by Law Number 19 of 2016) serves as the legal foundation for the validity of electronic transactions in Indonesia, including QRIS-based payments. This law regulates the legality of electronic transactions, electronic signatures, and personal data protection, all of which are integral to the QRIS digital payment ecosystem. Third, Law Number 3 of 2011 concerning Fund Transfers governs the mechanisms of transferring funds between accounts, which constitutes the core substance of every QRIS transaction. This legal framework ensures legal certainty for all parties involved, particularly regarding the finality of fund transfers from consumers to merchants. Fourth, Law Number 8 of 1999 on Consumer Protection provides the legal basis for the protection of QRIS users, both consumers and business actors, in every transaction conducted through the QRIS system.

b) Secondary Legal Basis (Bank Indonesia Regulations).

From a technical and operational perspective, the existence of QRIS is governed by several regulations issued by Bank Indonesia, including: (1) Board of Governors Regulation (PADG) Number 21/18/PADG/2019 concerning the Implementation of the National Quick Response Code Standard for Payments, which serves as the principal regulatory framework for QRIS; (2) PADG Number 24/1/PADG/2022 as an update to the implementation of the QRIS standard; (3) Bank Indonesia Regulation Number 22/23/PBI/2020 on the Payment System, which establishes the general framework of the national payment system; (4) Bank Indonesia Regulation Number 18/40/PBI/2016 concerning Payment Transaction Processing; (5) Bank Indonesia Regulation Number 23/6/PBI/2021 concerning Payment Service Providers; and (6) Bank Indonesia Regulation Number 3 of 2023 concerning Consumer Protection by Bank Indonesia. This multilayered juridical foundation demonstrates that QRIS is not merely a technological innovation, but a payment instrument operating within a comprehensive legal framework. Such a framework provides legal certainty and protection for all

stakeholders involved, including payment service providers, merchants, and consumers utilizing the system.

Within the Quick Response Code Indonesian Standard (QRIS) ecosystem, several key actors are involved, each with distinct roles and legal relationships. First, Bank Indonesia acts as the regulatory authority responsible for establishing standards and supervising the implementation of QRIS. Second, Payment Service Providers (Penyelenggara Jasa Pembayaran/PJP) consist of issuers and acquirers, including both banking and non-bank institutions that have obtained authorization from Bank Indonesia. Third, switching institutions function as intermediaries that connect different payment systems. Fourth, the standard-setting body, namely Asosiasi Sistem Pembayaran Indonesia, plays a role in formulating and maintaining QRIS standards. Fifth, merchants act as recipients of payments, and sixth, consumers serve as end users who initiate and complete transactions. From a technical perspective, QRIS supports two primary payment methods: Merchant Presented Mode (MPM) and Consumer Presented Mode (CPM). In the MPM model, merchants display a QR code either static or dynamic which is scanned by consumers. This model is the most widely used, particularly among micro, small, and medium enterprises (MSMEs), due to its simplicity and ease of implementation. (Andika Prawira Buana, 2017) In contrast, the CPM model involves consumers presenting a QR code generated by their payment application to be scanned by the merchant. This model is typically applied in environments requiring high transaction speed, such as transportation services, parking systems, and modern retail sectors. The sources of funds that can be utilized in QRIS transactions are diverse, including savings or current accounts in banks, payment instruments such as debit and credit cards, credit facilities, and server-based electronic money. This flexibility enhances the inclusiveness of QRIS, as it enables access through multiple financial channels, thereby supporting broader financial integration within Indonesia's digital economy. (Samosir et al., 2024)

Efficiency in a payment system refers to the extent to which a system is capable of executing payment transactions effectively at low cost, with speed, and minimal risk. In economic terms, payment efficiency generally encompasses three principal dimensions: technical efficiency (the system's capacity to process a high volume of transactions), allocative efficiency (the equitable distribution of benefits among all parties involved), and dynamic efficiency (the system's ability to adapt and innovate in line with technological advancements). (Gde et al., 2024) From the perspective of banking law, the principle of efficiency constitutes a fundamental norm embedded in various regulatory frameworks. Bank Indonesia consistently emphasizes the importance of a payment system characterized by being "fast, easy, affordable, and reliable" (CEMUMUAH) as a performance benchmark that must be fulfilled by any payment instrument operating in Indonesia. The Quick Response Code Indonesian Standard is designed and implemented with the primary objective of realizing these principles of efficiency. Prior to the implementation of the Quick Response Code Indonesian Standard, QR code-based payment systems in Indonesia operated within closed ecosystems, where each service provider functioned independently without interoperability. This condition led to significant inefficiencies, as merchants were required to display multiple QR codes, and the existing infrastructure lacked integration. QRIS addresses this fragmentation by consolidating various systems into a single, open, and

interoperable national standard. Through a single QRIS code, transactions can be executed using any payment application that has been certified by Bank Indonesia, regardless of platform or issuing financial institution. (Septian et al., 2023)

QRIS establishes a uniform and affordable Merchant Discount Rate (MDR) structure. For micro-enterprise merchants, the MDR is set at 0% (zero percent). Similarly, for non-profit entities, social assistance, government transactions, and charitable donations, the MDR is also 0%. For general merchants, the MDR is capped at a maximum of 0.7% per transaction. This policy is significantly lower than the fees typically imposed on debit or credit card transactions, thereby reducing transaction costs for micro, small, and medium enterprises (MSMEs) and encouraging broader adoption of digital financial services. QRIS enables the completion of payment transactions within a very short time frame. The process typically takes only a few seconds: users simply scan the QR code, input the payment amount, and confirm the transaction. (Renjith, n.d.) Confirmation notifications are instantly received by both parties. Compared to card-based payments, which require multiple procedural steps, QRIS significantly reduces the time required for each transaction, enhancing overall efficiency. From a security perspective, QRIS incorporates a Transaction Identification Number (TIN) system as an alternative to traditional PIN mechanisms, thereby enhancing transaction security. In addition, QRIS is equipped with encryption systems aligned with international standards and supported by Fraud Detection Systems (FDS). Bank Indonesia also enforces strict internal controls in the implementation of QRIS to mitigate risks and protect consumers from threats such as data breaches, skimming, and QR code manipulation. Furthermore, the use of QRIS indirectly reduces the circulation of counterfeit currency and minimizes the risks associated with cash theft. (Dickinson, n.d.)

The success of the Quick Response Code Indonesian Standard in creating payment efficiency is clearly reflected in transaction growth data recorded by Bank Indonesia. This growth constitutes the most concrete empirical indicator for evaluating how effectively QRIS functions as an efficient payment instrument. Since its implementation in 2020 through 2024, the use of QRIS has demonstrated highly significant growth. In April 2024, the value of QRIS transactions increased by 194.06 percent year-on-year (yoy), with total users reaching 48.90 million and the number of merchants amounting to 31.86 million. This figure experienced a substantial surge in July 2024, when Perry Warjiyo announced during a Board of Governors press conference that QRIS transaction growth had reached 226.54 percent (yoy), with the number of users rising to 50.50 million and merchants to 32.71 million. This achievement exceeded the targets previously set by Bank Indonesia. By the end of 2024, Bank Indonesia reported that QRIS transactions grew by 175.2 percent (yoy) throughout the year, with total digital payment transactions reaching 43.5 billion, representing an increase of 36.1 percent (yoy). These figures indicate that QRIS has become the fastest-growing component within Indonesia's digital payment system, significantly surpassing the growth of transactions conducted via ATM cards, debit cards, and internet banking. In contrast, transaction values using ATM and debit cards have shown a declining trend, signaling a shift from conventional payment methods toward QRIS-based transactions. (Saraswati, 2026)

Furthermore, Bank Indonesia recorded that QRIS transaction volume in the first quarter of 2025 reached 2.6 billion transactions, reflecting a growth of up to 594 percent compared to the same period in 2023, while transaction value growth reached 150 percent. The majority of QRIS merchants consist of micro, small, and medium enterprises (MSMEs), totaling approximately 38.1 million. The rapid expansion of QRIS within only a few years of its introduction serves as clear evidence of the system's effectiveness in enhancing payment efficiency and promoting digital financial inclusion in Indonesia.

2. Legal Protection of Consumers in the Use of the Quick Response Code Indonesian Standard (QRIS) in the Event of Transaction Disputes.

Consumer protection within the legal framework in Indonesia constitutes a manifestation of constitutional rights as enshrined in Article 28D paragraph (1) of the 1945 Constitution of the Republic of Indonesia, which affirms that every person has the right to recognition, guarantees, protection, and legal certainty that is just and equitable. In the context of electronic transactions, particularly those involving digital payment systems such as the Quick Response Code Indonesian Standard, (Ramadhan et al., 2026) consumer protection becomes critically important due to the technical complexity, the involvement of multiple stakeholders, and the inherent risks within the digital ecosystem. Preventive legal protection refers to a form of protection provided prior to the occurrence of a dispute, with the objective of preventing losses or violations of consumer rights. In the context of Quick Response Code Indonesian Standard transactions, such preventive measures are implemented through various regulations and policies established by Bank Indonesia and the Otoritas Jasa Keuangan. (Wu et al., 2019)

Bank Indonesia has issued various regulations that function as initial safeguards for QRIS users. The Board of Governors Regulation Number 21/18/PADG/2019 concerning the Implementation of the National Quick Response Code Standard for Payments comprehensively regulates QRIS standardization, the rights and obligations of the parties involved, as well as dispute resolution mechanisms. Article 22 of this regulation explicitly prohibits the imposition of Merchant Discount Rate (MDR) fees on consumers, emphasizing that such fees are the responsibility of merchants and must not be transferred to consumers in any form. (Nugroho et al., 2026)

Furthermore, Bank Indonesia Regulation Number 3 of 2023 concerning Consumer Protection focuses on the responsibilities of providers in safeguarding consumers, including: (1) the obligation of transparency as stipulated in Article 17, requiring providers to deliver clear, accurate, and comprehensive information regarding payment system products or services, including features, benefits, risks, costs, and usage procedures; (2) the obligation to maintain data confidentiality under Article 19, mandating providers to ensure the security and protection of consumer data through reliable information systems and adequate data protection mechanisms; (3) the obligation to handle complaints in accordance with Articles

41 and 42, requiring providers to establish accessible complaint mechanisms and resolve complaints within a maximum of 20 (twenty) working days upon receipt of complete documentation; and (4) the obligation to provide consumer education as regulated in Article 15, which requires providers to educate consumers regarding the products and/or services offered. In addition, Bank Indonesia Regulation Number 23/6/PBI/2021 concerning Payment Service Providers regulates the responsibilities of payment system providers (PJP). (Muliawan & Maharani, 2026) Article 51 paragraph (2) specifically requires providers to terminate cooperation with merchants who cause losses to consumers or misuse access to funding sources during payment transactions, including merchants who unlawfully impose MDR fees on consumers. As a preventive measure, Bank Indonesia requires all Payment Service Providers to implement high-level system security standards. These include: (1) the use of encryption systems that meet international standards to protect transaction data; (2) the implementation of a Transaction Identification Number (TIN) as a substitute for PIN to enhance transaction security; (3) the application of a Fraud Detection System (FDS) to identify and prevent suspicious or abnormal transactions; (4) multi-factor authentication to verify user identity; (5) real-time transaction monitoring to detect anomalies or potential fraud; and (6) regular security audits and penetration testing to identify system vulnerabilities. (Ansari & Sukarja, 2024)

Additionally, Bank Indonesia Regulation Number 19/10/PBI/2017 concerning the Implementation of Anti-Money Laundering and Counter-Terrorism Financing for Non-Bank Payment System Providers constitutes an essential component of preventive protection. This regulation requires providers to implement Customer Due Diligence (CDD) and Enhanced Due Diligence (EDD) to prevent the misuse of QRIS payment systems for money laundering or terrorism financing activities. Bank Indonesia and the Otoritas Jasa Keuangan regularly conduct public education and financial literacy programs as part of preventive protection efforts. One such initiative is the “Gerakan Bersama Perlindungan Konsumen (GEBER PK)” for 2025–2026, a collaborative program aimed at enhancing public understanding of consumer rights in financial services, including QRIS. The program adopts the tagline PEKA (Care, Recognize, Report) as a guideline for promoting informed and vigilant consumer behavior. (Krisma et al., 2023) The educational initiatives include: (1) guidance on the safe and proper use of QRIS; (2) awareness of consumer rights and obligations in QRIS transactions; (3) methods to identify and prevent digital fraud; (4) complaint procedures in case of disputes; (5) understanding the prohibition of charging MDR fees to consumers; and (6) the importance of retaining transaction records as evidence. These educational activities are disseminated through various channels, including social media, official websites of Bank Indonesia and OJK, public campaigns, and collaborations with educational institutions and community organizations.

D. CONCLUSION

This study concludes that the Quick Response Code Indonesian Standard has demonstrably enhanced payment system efficiency through four key dimensions: infrastructure efficiency based on interoperability through a single QR code usable across all platforms; cost efficiency through a Merchant Discount Rate (MDR) policy of 0% for micro-enterprises and a maximum of 0.7% for general merchants; time efficiency through transaction completion within seconds; and security efficiency supported by encryption systems, Transaction Identification Numbers (TIN), and Fraud Detection Systems. Furthermore, consumer legal protection in the use of QRIS is implemented through two main approaches. First, preventive protection includes technical standardization based on PADG No. 21/18/PADG/2019, the prohibition of passing MDR costs onto consumers, obligations of information transparency and data security as regulated under Bank Indonesia Regulation No. 3 of 2023, as well as financial literacy programs such as GEBER PK conducted by Bank Indonesia and the Otoritas Jasa Keuangan. Second, repressive protection is realized through a tiered dispute resolution mechanism, beginning with internal complaints to Payment Service Providers (PJP) within a maximum period of 20 working days, followed by facilitation by Bank Indonesia, mediation or arbitration through the Lembaga Alternatif Penyelesaian Sengketa Sektor Jasa Keuangan, and ultimately litigation through the District Court or the Consumer Dispute Settlement Body (BPSK) in accordance with Law Number 8 of 1999 on Consumer Protection.

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