



The Principle of Tax Justice and its Challenges in QRIS-Based Digital Economic Transactions

Lilisen^{1*}, Ainul Masruroh¹, Anto Kustanto¹

¹Universitas Wahid Hasyim, Semarang, Indonesia

*Corresponding author: chenwinata@gmail.com

Abstract. The rapid expansion of QRIS-based digital transactions has reshaped Indonesia's payment ecosystem and integrated electronic transaction data into tax administration. This transformation enhances fiscal efficiency and transparency but raises concerns about tax justice, proportionality, legal certainty, and taxpayer rights. Existing studies emphasize modernization and revenue optimization, yet the normative implications of QRIS for justice remain underexplored. This study applies a normative legal method using statutory, conceptual, and analytical approaches to evaluate juridical dynamics of QRIS-based taxation. Findings reveal three issues: first, regulations prioritize efficiency and supervision over proportional burdens; second, disparities arise from inconsistent frameworks and unequal treatment of digital versus conventional actors; third, taxpayer rights are vulnerable due to limited safeguards for privacy, fairness, and certainty. The study contributes to adaptive digital tax law by stressing regulatory harmonization that balances efficiency with proportionality, equality, and protection of taxpayer rights.

Keywords: Digital Taxation, Regulatory Harmonization, Tax Justice, Taxpayer Rights, QRIS.

Received: March 8, 2026 | Revised: May 11, 2026 | Accepted: June 23, 2026



Abstrak. *Eksansi pesat transaksi digital berbasis QRIS telah membentuk kembali ekosistem pembayaran Indonesia dan mengintegrasikan data transaksi elektronik ke dalam administrasi pajak. Transformasi ini meningkatkan efisiensi dan transparansi fiskal tetapi menimbulkan kekhawatiran tentang keadilan pajak, proporsionalitas, kepastian hukum, dan hak wajib pajak. Studi yang ada menekankan modernisasi dan optimalisasi pendapatan, namun implikasi normatif QRIS terhadap keadilan masih kurang dieksplorasi. Studi ini menerapkan metode hukum normatif menggunakan pendekatan hukum, konseptual, dan analitis untuk mengevaluasi dinamika yuridis perpajakan berbasis QRIS. Temuan mengungkapkan tiga masalah: pertama, peraturan memprioritaskan efisiensi dan pengawasan daripada beban proporsional; kedua, disparitas muncul dari kerangka kerja yang tidak konsisten dan perlakuan yang tidak setara antara pelaku digital dan konvensional; ketiga, hak wajib pajak rentan karena terbatasnya perlindungan privasi, keadilan, dan kepastian. Studi ini berkontribusi pada hukum pajak digital adaptif dengan menekankan harmonisasi peraturan yang menyeimbangkan efisiensi dengan proporsionalitas, kesetaraan, dan perlindungan hak wajib pajak.*

Kata kunci: *Perpajakan Digital, Harmonisasi Regulasi, Keadilan Pajak, Hak Wajib Pajak, QRIS.*

1. Introduction

The rapid expansion of the digital economy has reshaped conventional economic activities into technology-driven transactions integrated with national financial systems. Digital payment systems, particularly QRIS, have become central instruments for efficiency and transparency, while simultaneously broadening fiscal supervision through electronic transaction data. This transformation strengthens tax administration but also introduces challenges concerning proportionality, equality, and legal certainty. The principle of tax justice requires that taxation reflect a balance between citizens' obligations and their economic capacity, ensuring fairness and preventing discriminatory treatment.¹ In practice, however, juridical dynamics often reveal tension between the state's pursuit of revenue optimization and its duty to protect taxpayer rights. QRIS-based transactions exemplify this tension, highlighting the need for adaptive regulatory harmonization to align digital fiscal policies with equality before taxation, proportionality, and the ability-to-pay doctrine.

QRIS represents a major innovation in Indonesia's payment system, integrating diverse electronic payment services into a single standardized mechanism. Its defining features ease of access, speed of payment, real-time traceability, and integration of business actors, consumers, and banks have expanded financial inclusion, particularly for micro-enterprises and informal sectors.² QRIS transactions are now embedded in everyday economic life, offering efficiency and transparency while enabling intensive monitoring through electronic data integration.³ This strengthens tax supervision but also raises concerns about equality of fiscal treatment, regulatory consistency, and taxpayer privacy. The juridical dynamics of QRIS-based transactions therefore require careful evaluation within the framework of contemporary tax law.

Although QRIS has been widely recognized as an important driver of financial inclusion and digital payment adoption, existing studies predominantly evaluate it from the perspectives of payment efficiency, MSME performance, technology acceptance, and consumer behavior.⁴ Other studies identify barriers to QRIS

¹ Nguyen Thi Trien, "Equity in Tax Law: Vietnam Case Study," *Administrative and Environmental Law Review* 3, no. 2 (2022): 102.

² Berliana Simanjuntak et al., "Efisiensi Penggunaan Quick Response Code Indonesia Standard (QRIS) Dalam Mendukung Penjualan di Era Digital," *Media Hukum Indonesia (MHI)* 2, no. 4 (2024): 34.

³ Dicky Andhika Kuswoyo et al., "The Influence of QRIS Payment Method Usage and Effectiveness Level on Small and Medium Enterprise (SME)," In *2024 International Conference on Electrical Engineering and Computer Science (ICECOS)*, (Piscataway: IEEE, 2024), 230.

⁴ Yosua Brilian Junaedi et al., "Sustainable Usage Intention: QRIS (Quick Response Code Indonesian Standard) Payment Acceptance for Small and Medium Enterprises," In *2024 9th*

implementation, including limited digital literacy, perceived risks, and user trust, emphasizing the need for stronger regulatory support and legal empowerment.⁵ Nevertheless, these studies rarely examine how the increasing integration of QRIS into fiscal administration affects tax justice, taxpayer rights, and constitutional guarantees of equality and proportionality. Consequently, QRIS has largely been examined as a financial innovation rather than as a legal instrument capable of reshaping the relationship between digital payment systems and tax regulation.

Tax justice is a constitutional principle in Indonesia, enshrined in Article 23A of the 1945 Constitution, which mandates that taxes and compulsory levies must be regulated by law.⁶ Its implementation is reflected in Law Number 6 of 1983 on General Provisions and Tax Procedures, emphasizing legal certainty and taxpayer protection, and Law Number 7 of 2021 on Harmonization of Tax Regulations, which extends taxation to digital activities. Complementary safeguards are provided by Law Number 11 of 2008 on Electronic Transactions and Law Number 27 of 2022 on Personal Data Protection.⁷ Collectively, these laws establish equality, proportionality, and ability-to-pay as the foundation of the national tax system. Yet, the rapid expansion of QRIS transactions exposes gaps in regulatory harmonization, particularly in oversight mechanisms and taxpayer protection. The integration of QRIS into fiscal supervision intensifies monitoring, but without clear

International Conference on Business and Industrial Research (ICBIR), (Piscataway: IEEE, 2024), 0762. See also, Mohammad Nabil Almunawar, "Quick response code Indonesia standard (QRIS): A policy-driven cashless payment system," *Journal of Science and Technology Policy Management* 12, no. 2 (2026): 8; Raja Syanova, and Ahmad Nurul Fajar, "Analysis of factors that influence use behaviour of using Qris payments for UMKM in Bekasi," *Journal of Logistics, Informatics and Service Science* 11, no. 7 (2024): 335; Filbert Fortino et al., "The Effect of Merchant Discount Rate and Settlement Fee on the Adoption of QRIS Among Potential Users as a Payment Option," In *2025 9th International Conference on Information Technology (InCIT)*, (Piscataway: IEEE, 2025), 298; Nicholas Miko et al., "Utilization of QRIS and E-Wallet-Based Digital Payments to Increase the Competitiveness of MSMEs," In *2025 International Conference on ICT for Smart Society (ICISS)*, (Piscataway: IEEE, 2025), 4; Kuswoyo et al., "The Influence of QRIS Payment Method Usage," 230.

⁵ Huberta Hillary et al., "Driving Digital Payment Adoption: Addressing Key Barriers for SMEs," In *2024 Ninth International Conference on Informatics and Computing (ICIC)*, (Piscataway: IEEE, 2024), 4. See also, Roro Ajeng Muningsgar, and Trubus Rahardiansah, "Pemberdayaan Hukum Pembayaran Digital melalui Penggunaan Teknologi Quick Response Code Indonesian Standar di Masyarakat," *Jurnal Pembangunan Hukum Indonesia* 6, no. 3 (2024): 405; Priska Arindya Purnama et al., "Perceived Value, Trust, and User Experience in Driving Digital Payment QRIS Adoption: Evidence from MSMEs in Malang," In *2025 International Conference on Informatics, Multimedia, Cyber and Information System (ICIMCIS)*, (Piscataway: IEEE, 2025), 671.

⁶ Taqwallah, and Sigit Nurhadi Nugraha, "Tax Justice: A Study of Value Added Tax (VAT) Policy in Indonesia," *Journal of Public Representative and Society Provision* 6, no. 1 (2026): 153.

⁷ Erwin Asmadi et al., "Actualization of criminal liability for personal data protection in the use of financial technology: a comparative study of Law Number 11 of 2008 concerning Information and Electronic Transactions and Law Number 27 of 2022 concerning Protection of Personal Data," *De Lega Lata: Jurnal Ilmu Hukum* 8, no. 2 (2023): 296.

standards on data usage, equality of treatment, and procedural safeguards, risks of disproportionate burdens and weakened privacy protection remain.

Existing scholarship on digital taxation has largely emphasized administrative efficiency, revenue optimization, and the expansion of tax bases through digital technologies.⁸ Other studies focus on technological monitoring, fintech integration, and strengthening tax administration through electronic transaction data.⁹ Additional research discusses cross-border taxation, conflicting taxing rights, regulatory harmonization, and international cooperation in the digital economy.¹⁰ Meanwhile, Indonesian studies on digital tax reform mainly examine policy modernization and institutional adaptation rather than the constitutional dimensions of taxpayer protection.¹¹ Although digital payment systems are

⁸ Favourate Y. Mpfu, "Taxation of the digital economy and direct digital service taxes: Opportunities, challenges, and implications for African countries," *Economies* 10, no. 9 (2022): 219. See also, Stephen Dale, "The digitalisation of the global economy some thoughts on the consequences for tax systems and their administration," In *ERA Forum*, (Berlin: Springer Berlin Heidelberg, 2018), 243; Huiqiang Ni et al., "Two Birds With One Stone: Digitisation of Tax Administration and the Digital Transformation of Firms," *Asian-Pacific Economic Literature* 14, no. 2 (2025): 121.; Anisa Pali, and Shezeina Rama, "Digital Transformation and Its Impact on Public Services: The Case of the Tax Administration Services," *Interdisciplinary Journal of Research and Development* 12, no. 1 (2025): 40; Lida Nicole Sante Samar et al., "Digital Transformation in Taxation: The Role of Artificial Intelligence and Big Data in the Modernization of Fiscal Administration, 2024," In *Proceedings of the 23rd LACCEI International Multi-Conference for Engineering, Education and Technology (LACCEI): Engineering, Artificial Intelligence, and Sustainable Technologies in service of society*, 2025.

⁹ Raad Oleiwi, "The impact of electronic data interchange on accounting systems," *International Journal of Professional Business Review* 8, no. 4 (2023): 14. See also, Naufal Rizqiyanto et al., "Tax regulation challenges in the digital economy era: Legal analysis and implications in Indonesia," *Trunojoyo Law Review* 7, no. 1 (2025): 83; Alisher Pulatov, "Taxation in the digital economy in Uzbekistan," In *The Political Economy of Central Asian Law: A Law and Society Analysis*, (Cham: Springer Nature Switzerland, 2024), 241; Windy Permata Suyono et al., "Enhancing Tax Compliance Among E-commerce MSMEs: The Impact of Digital Financial Technology and Tax Knowledge with Digital Trust as a Moderating Variable," In *World Conference on Information Systems for Business Management*, (Cham: Springer Nature Switzerland, 2025), 81; Changyuan Xia et al., "RegTech and regulators' error detection activities: Evidence from China," *Finance Research Letters* 78, no.2 (2025): 107198.

¹⁰ Prianto Budi Saptano et al., "Local government taxing power for digital consumption: A Case study of hotel, restaurant, and entertainment taxes in Indonesia," *Lex localis* 21, no. 4 (2023): 1153. See also, Yumin Li, and Minquan Liu, "The People's Republic of China's Tax Reform in the Digital Economy: Progress and Challenges," *Taxation in the Digital Economy* 11, no. 3 (2022): 118; Nidya Hapsari et al., "Taxing digital assets in emerging economies: a lesson from a systematic literature review," *International Journal of Technology, Policy and Management* 26, no. 1 (2026): 126; Y. N. D. C. Lannes et al., "Taxation Challenges In The Digital Economy: Beps And The Brazilian Reality Desafios Da Tributação Da Economia Digital: Beps Ea Realidade Brasileira," (2022): 143.

¹¹ Endang Mahpudin, "Digital tax reform in Indonesia: Perspective on tax policy development," *Journal of Infrastructure, Policy and Development* 8, no. 8 (2024): 7036. See also, Amelia

increasingly recognized as instruments that may improve taxpayer compliance through transaction traceability, no study specifically explains how QRIS-based fiscal supervision should be reconciled with the principles of tax justice, equality before taxation, proportionality, privacy protection, and legal certainty.¹² Consequently, the juridical implications of integrating QRIS into Indonesia's tax system remain insufficiently explored, leaving an important normative gap regarding the balance between effective tax administration and taxpayer rights.

This study argues that QRIS-based digital taxation has not been fully accompanied by adaptive regulatory harmonization to realize substantive tax justice. QRIS integration intensifies fiscal supervision because digital transactions are easier to monitor than conventional ones.¹³ Yet, this expansion is not balanced by clear legal standards on data usage limits, equality of treatment, and procedural safeguards. Without such standards, fiscal supervision risks undermining proportionality and fairness, particularly for vulnerable economic groups. The normative implications of QRIS-based taxation therefore extend beyond administrative efficiency, raising fundamental questions about distributive justice, privacy, and legal certainty.

International comparisons further illustrate the importance of balancing fiscal efficiency with taxpayer protection. In the European Union, digital tax regulations are implemented alongside strict principles of transparency, proportionality, and data protection, integrating fiscal policies with personal data safeguards.¹⁴ Developed countries often limit digital supervision through judicial oversight and clearer ability-to-pay parameters to avoid discrimination against small business actors.¹⁵ Incentive schemes or tax thresholds are introduced to maintain

Cahyadi et al., "The urgency of reforming Indonesia's tax Law in the face of economic digitalization," *Cogent Social Sciences* 9, no. 2 (2023): 2285243.

¹² Suarni Norawati et al., "Leveraging Intelligent Digital Payment Systems for Tax Compliance Enhancement: Evidence from Indonesia's Motorized Tax Sector using SEM-PLS," In *2025 8th International Seminar on Research of Information Technology and Intelligent Systems (ISRITI)*, (Piscataway: IEEE, 2025), 117.

¹³ Adang Sonjaya et al., "How the Integration of Payment Systems Through QRIS Accelerates Economic and Financial Cooperation in the ASEAN Region," *International Journal of Sustainable Development & Planning* 20, no. 3 (2025): 98.

¹⁴ Valeriy Khoruzhy et al., "Tax Residency in the European Union and the Problems of Implementing Anti-Tax Avoidance Legislation in the Frames of Digital Competition: A View From Non-Residents," *Journal of Public Affairs* 26, no. 1 (2026): e70106. See also, Marie-Therese Sekwenz, and Rita Gsenger, "The Digital Services Act: Online Risks, Transparency and Data Access," *Digital Decade* 19, no. 3 (2025): 128.

¹⁵ Tiwalade Adelola et al., "Privacy and data protection in E-commerce: The effectiveness of a government regulation approach in developing nations, using Nigeria as a case," In *The 9th International Conference for Internet Technology and Secured Transactions (ICITST-2014)*, (Piscataway: IEEE, 2014), 236. See also, P. Ashok, and Giri Hallur, "Seamless mobility: Innovating the digital service

equilibrium between state interests, privacy protection, and proportional burdens.¹⁶ These approaches contrast with Indonesia's emphasis on expanding the tax base and monitoring electronic transactions, underscoring the need for adaptive reforms.

The juridical dynamics of QRIS-based taxation also affect public trust in fiscal policy. Intensive monitoring without proportional justice standards risks imposing burdens that exceed the capacity of low-income business actors, creating perceptions of digital payment systems as instruments of state control rather than fair inclusion.¹⁷ Concerns about privacy protection and data security further weaken trust, reflecting the erosion of proportionality, equality before taxation, and non-discrimination.¹⁸ If not addressed, these issues may undermine voluntary compliance and hinder the legitimacy of digital economic transformation.

Against this backdrop, this study focuses on three central questions: (1) What are the problems of tax justice in QRIS-based digital transactions; (2) How do disparities in tax collection occur in QRIS-based digital transactions; (3) What are the vulnerabilities of taxpayer rights in QRIS-based digital transactions. By addressing these questions, the study seeks to evaluate juridical dynamics in applying tax justice principles within QRIS-based digital economic transactions, filling gaps in existing scholarship and contributing to the development of adaptive digital tax law in Indonesia.

2. Research Methods

This study employs a qualitative descriptive design grounded in normative juridical analysis to examine the application of tax justice principles in QRIS-based digital transactions.¹⁹ The research design emphasizes interpretation of legal norms

landscape in telecom industry," In *International Conference on Cognitive Computing and Cyber Physical Systems*, (Singapore: Springer Nature Singapore, 2023), 182.

¹⁶ Olubukola Omolara Adebisi, "Taxation in the digital age: an examination of the necessity, feasibility, and implications of taxing virtual infrastructures," *Asian Journal of Economics, Business and Accounting* 23, no. 23 (2023): 24.

¹⁷ Grzegorz Buciora, and Elżbieta Jaworskab, "The costs of tax accounting digitalization from the perspective of Polish small enterprises," *Procedia Computer Science* 270, no. 2 (2025): 5150.

¹⁸ Franciscus Geovanni, and Nur Azmi Karim, "The Effect of Security and Convenience on the Interest in Using Quick Response Code Indonesia Standard (QRIS)," In *2025 International Conference on ICT for Smart Society (ICISS)*, (Piscataway: IEEE, 2025), 2. See also, Michael Widjaja, and Nilo Legowo, "Examining Drivers of Integrated QR Payment System (QRIS) Adoption Among Generation X in Indonesia," *MAJCAFE: Malaysian Journal of Consumer and Family Economics* 34, no. 4 (2025): 3441.

¹⁹ Vickie A. Lambert, and Clinton E. Lambert, "Qualitative descriptive research: An acceptable design," *Pacific Rim international journal of nursing research* 16, no. 4 (2012): 255.

and regulatory frameworks, allowing contextual understanding of how digital payment systems reshape fiscal justice.

The normative approach is complemented by statutory, conceptual, and comparative perspectives. The statutory approach is applied to analyze binding legal instruments, including Article 23A of the 1945 Constitution, Law No. 6 of 1983 on General Provisions and Tax Procedures, Law No. 7 of 2021 on Harmonization of Tax Regulations, Law No. 8 of 1983 on VAT, Law No. 11 of 2008 on Electronic Transactions, Law No. 27 of 2022 on Personal Data Protection, and Bank Indonesia Regulation No. 21/18/PBI/2019 on QRIS. These primary sources are supported by secondary materials such as scholarly articles, tax law literature, and policy documents.

Data collection is conducted through literature review and legal document tracing, focusing on identifying, inventorying, and analyzing regulations relevant to QRIS, digital taxation, and taxpayer protection. This method ensures comprehensive coverage of both statutory provisions and academic perspectives.²⁰ Data analysis is qualitative-interpretative. Legal materials are classified according to issues of tax justice, disparities in tax collection, and taxpayer rights.²¹ The conceptual approach clarifies the meaning of proportionality, equality before taxation, and ability to pay in the digital economy. The comparative approach situates Indonesian regulation within broader fiscal governance standards, highlighting differences with jurisdictions such as the European Union, where transparency and data protection are integrated into digital tax regimes. Together, these approaches provide a structured framework to evaluate how QRIS-based supervision affects proportionality, equality, and legal certainty in Indonesia's tax system.

3. Results and Discussion

3.1. Problematics of Tax Justice in QRIS-Based Digital Transactions

The expansion of the digital economy has fundamentally transformed the relationship between payment systems and taxation. Digital payment infrastructures no longer function merely as transaction instruments but have become strategic components of fiscal governance because they generate real-time

²⁰ Anthony J. Onwuegbuzie et al., "Innovative qualitative data collection techniques for conducting literature reviews/research syntheses," *The Sage handbook of innovation in social research methods* 8, no. 1 (2011): 194.

²¹ Peter Stokes, and Christine Urquhart, "Qualitative interpretative categorisation for efficient data analysis in a mixed methods information behaviour study," (2013).

electronic records that increase transaction transparency and traceability.²² At the same time, the digitalization of economic activities creates new legal challenges, including difficulties in identifying taxable entities, determining jurisdiction over digital transactions, and ensuring equal treatment among taxpayers operating across different technological environments.²³ In Indonesia, these developments are reflected in the rapid expansion of QRIS as the national payment standard, which integrates banks, fintech providers, merchants, and consumers into a unified digital payment ecosystem.²⁴ QRIS has improved transactional efficiency, expanded financial inclusion, and encouraged the formalization of micro, small, and medium enterprises, thereby increasing the availability of transaction data that may strengthen tax administration.²⁵ Nevertheless, the same characteristics that enhance fiscal supervision also generate concerns regarding proportional taxation, legal certainty, privacy protection, and equality before taxation. Consequently, evaluating tax justice in QRIS-based transactions requires not only assessing administrative efficiency but also examining whether digital taxation remains consistent with constitutional principles of fairness and taxpayer protection.

The problematics of tax justice in QRIS-based digital transactions show that the transformation of the national payment system not only generates economic efficiency but also gives rise to normative tensions in the application of tax justice principles. The development of QRIS usage as a digital transaction instrument has expanded the integration of society's economy into the formal financial system, but it has also created issues related to the proportionality of tax burdens and equality of fiscal treatment.²⁶ The digitalization of transactions is often perceived as a new space for optimizing state revenue, leading tax policies to be oriented toward expanding taxable objects without being balanced by protection for vulnerable economic groups.²⁷ This context can be seen through Table 1, which illustrates the dynamics of disparities in perception, administrative burdens, and socio-economic implications in the practice of QRIS-based digital transactions.

²² Dale, "The digitalisation of the global economy," 243. See also, Mpofu, "Taxation of the digital economy," 219.

²³ Karina Ponomareva, "Digital transformation challenges to the tax security of the state in russia and other brics countries," *BRICS Law Journal* 10, no. 4 (2023): 154. See also, Li, and Liu, "The People's Republic of China's," 118.

²⁴ Almunawar, "Quick response code Indonesia standard (QRIS)," 8. See also, Junaedi et al., "Sustainable Usage Intention," 762.

²⁵ Kuswoyo et al., "The Influence of QRIS Payment Method Usage," 230. See also, Syanova, and Fajar, "Analysis of factors that influence," 335; Miko et al., "Utilization of QRIS and E-Wallet-Based Digital Payments," 4.

²⁶ Junaedi et al., "Sustainable Usage Intention," 0762. See also, Muninggar, and Rahardiansah, "Pemberdayaan Hukum Pembayaran Digital," 405.

²⁷ Akouété Paulin Bate, "Does digitalisation improve the mobilisation of tax revenues in Africa?" *African Multidisciplinary Tax Journal* 2021, no. 1 (2021): 98.

Table 1. Problematics of Tax Justice in QRIS-Based Digital Transactions.

Legal Basis	Legal Construction	Justice Issues	Justice Implications
Law Number 7 of 2021	Expanding the national digital economy tax base	Tax fairness standards are not yet specific	The principle of proportionality has the potential to be weakened
Law Number 6 of 1983	Digitalization of national tax administration	More intensive monitoring of digital transactions	Inequality of taxpayer supervision
Bank Indonesia Regulation Number 21/18/PBI/2019	Integration of national digital payment systems	Regulatory focus on transaction efficiency	The fiscal justice aspect is less than optimal
Law Number 8 of 1983	VAT applies to digital transactions	The burden of digital transactions increases	Potential unfairness of fiscal burden
Law Number 7 of 1983	Digital income becomes a taxable object	QRIS transactions are easy to track	Asas ability to pay weaken
Law Number 11 of 2008	Legality of national electronic transactions	The tax liability limit is not yet clear	The uncertainty of digital tax law
Law Number 27 of 2022	Digital transaction data protection	The use of QRIS data is not yet limited	Taxpayer privacy may be compromised
Law Number 21 of 2011	Fintech supervision involves many institutions	Overlapping supervisory authority	Regulatory certainty becomes weak

Table 1 highlights the problematics of tax justice in QRIS-based transactions, showing how the expansion of digital payment systems and complex tax law construction create challenges. Three contexts can be identified: the expansion of the tax base and intensified monitoring through integrated regulations and fintech supervision; the prioritization of administrative efficiency and revenue optimization over specific justice standards; and normative implications such as weakened proportionality, privacy protection, and increased inequality in fiscal burdens. These dynamics indicate that QRIS-based taxation still struggles to realize substantive and adaptive fiscal justice.

The tension lies between optimizing state revenue and protecting fiscal justice principles. Digital tax regulations are built on administrative paradigms and technology-based supervision, emphasizing efficiency over distributive fairness.²⁸ As a result, digital transactions are treated as easily monitored fiscal objects without

²⁸ Mahpudin, "Digital tax reform in Indonesia," 7036.

considering differences among taxpayers.²⁹ QRIS integration expands state control but lacks clear boundaries on privacy and tax obligations, weakening principles of ability to pay, proportionality, and non-discrimination.³⁰ Tax justice must therefore be understood not only as legality but also as a balance between fiscal interests and protection of digital economic rights.

From a normative perspective, justice should be the foundation of tax collection. The ability-to-pay principle requires proportional consideration of taxpayers' capacity.³¹ Yet QRIS-based supervision tends to prioritize traceability and revenue optimization over protection for vulnerable groups.³² This reflects a shift from distributive justice toward administrative efficiency. Legal certainty, however, demands clear boundaries on data use, supervision, and privacy protection. Without proportional regulation, integration of digital payment systems risks fiscal inequality and supervisory discrimination.³³

International practice shows a different orientation. In the European Union, digital tax regulation integrates transparency, proportionality, and data protection.³⁴ Developed countries limit supervision through judicial oversight and ability-to-pay parameters, preventing discrimination against small businesses.³⁵ Incentive schemes and tax thresholds maintain equilibrium between efficiency, privacy, and fairness.³⁶ Compared to Indonesia's emphasis on expanding the tax base, these approaches highlight the need for adaptive reform. In sum, QRIS-based taxation illustrates the ongoing tension between fiscal optimization and justice. While digital

²⁹ Esi Sekar Rini, "Taxing the Smart Retail: Value Added Tax Policy Analysis on Digital Transactions in Indonesia," In *2020 International Conference on ICT for Smart Society (ICISS)*, (Piscataway: IEEE, 2020), 5. See also, Wardah Yuspin, and Abdy Nagoro, "Penerapan kebijakan countercyclical terhadap fintech syariah peer to peer lending: Studi kasus PT. Alami Fintek Sharia dan PT. Investree Radhika Jaya," *Jurnal Hukum Magnum Opus* 6, no. 1 (2023): 77; Mpofo, "Taxation of the digital economy," 219.

³⁰ Geovanni, and Karim, "The Effect of Security and Convenience," 2. See also, Widjaja, and Legowo, "Examining Drivers of Integrated QR Payment System (QRIS)," 3441.

³¹ M. Gunawan Setyadi, and Tino Feri Efendi, "Integrating Tax Fairness, Government Marketing Strategy, and Institutional Trust: A Moderated Mediation Model of Tax Compliance in Indonesia," *International Journal of Economics, Business and Accounting Research (IJEBAR)* 9, no. 4 (2025): 366.

³² Zainal Fanani et al., "Monetisasi Data, Sentralisasi QRIS, dan Tantangan Integrasi Nilai Syariah dalam Sistem Pembayaran Digital Indonesia:(Data Monetization, QRIS Centralization, and the Challenge of Sharia Value Integration in Indonesia's Digital Payment System)," *Al-Mubasib: Journal of Islamic Accounting and Finance* 5, no. 1 (2025): 34.

³³ Widjaja, and Legowo, "Examining Drivers of Integrated QR Payment System (QRIS)," 3441.

³⁴ Khoruzhy et al., "Tax Residency in the European Union," e70106. See also, Sekwenz, and Gsenger, "The Digital Services Act," 128.

³⁵ Adelola et al., "Privacy and data protection," 236. See also, Ashok, and Hallur, "Seamless mobility," 182.

³⁶ Adebiyi, "Taxation in the digital age," 24.

systems enhance efficiency and monitoring, they risk undermining proportionality, equality, and privacy without adaptive regulation. Lessons from international practice suggest that integrating transparency, proportional safeguards, and data protection is essential to ensure QRIS supports both fiscal interests and taxpayer rights.

The problematics of tax justice in QRIS-based digital transactions not only affect the administrative aspects of taxation but also influence the relationship between the state, the digital economic system, and public trust in fiscal policy. When digital transaction monitoring is conducted intensively without proportional justice standards, low-income business actors may bear fiscal burdens that exceed their economic capacity.³⁷ This condition may create a perception that digital payment systems function more as instruments of state control rather than as means of fair economic inclusion. The lack of clarity regarding the limits of QRIS transaction data utilization may also raise concerns about privacy protection and the security of taxpayers' information.³⁸ This condition reflects the weakening of the principles of proportionality, equality before taxation, and non-discrimination in digital taxation practices.³⁹

In practice, the integration of QRIS transaction data into digital supervision systems enables the state to monitor economic activities more intensively through electronic transaction records. However, the absence of proportional legal standards regarding data utilization and fiscal supervision may potentially create unequal treatment between large-scale business actors and small or informal economic actors. Digital fiscal supervision tends to prioritize administrative efficiency and tax optimization rather than distributive justice based on taxpayers' economic capacity.⁴⁰ This situation can weaken voluntary compliance, as the tax system is perceived as not fully reflecting the principles of ability to pay and non-discrimination. If not addressed through adaptive regulatory reformulation, these issues have the potential to widen fiscal inequality and hinder the legitimacy of sustainable digital economic transformation.

Overall, the findings demonstrate that the legal challenges of QRIS-based taxation extend beyond technical questions of tax administration and reflect broader structural issues within digital fiscal governance. Existing regulatory frameworks have generally focused on improving monitoring capacity and expanding the tax base, yet they have not fully resolved legal uncertainties concerning taxpayer classification, supervisory authority, data utilization, and

³⁷ Buciora, and Jaworskab, "The costs of tax accounting digitalization," 5150.

³⁸ Alya Putri Nabila et al., "The Influence of Trust and Transaction Security on Interest in Using the QRIS Payment System," *Airlangga Journal of Innovation Management* 6, no. 2 (2025): 254.

³⁹ Geovanni, and Karim, "The Effect of Security and Convenience," 2. See also, Widjaja, and Legowo, "Examining Drivers of Integrated QR Payment System (QRIS)," 3441.

⁴⁰ Fanani et al., "Monetisasi Data, Sentralisasi QRIS, dan Tantangan Integrasi," 34.

proportional allocation of tax burdens.⁴¹ International experience likewise indicates that sustainable digital taxation requires not only technological innovation but also harmonized legal standards, cross-institutional coordination, and safeguards against regulatory arbitrage and unequal fiscal treatment.⁴² Furthermore, the effectiveness of QRIS depends on public acceptance and voluntary compliance, both of which are influenced by user trust, digital literacy, and perceptions of fairness in digital payment systems.⁴³ The integration of digital payment data may strengthen tax compliance, as suggested by recent empirical evidence, but its legitimacy ultimately depends on transparent legal safeguards that balance fiscal interests with taxpayer rights.⁴⁴ Therefore, the problematics identified in this study confirm that achieving tax justice in QRIS-based transactions requires adaptive legal harmonization that simultaneously promotes efficiency, legal certainty, proportionality, and protection of fundamental taxpayer rights.

3.2. Disparity in QRIS-Based Digital Transaction Tax Collection

Digital tax collection has become an integral component of contemporary fiscal governance as governments increasingly rely on electronic payment infrastructures to improve tax administration, strengthen compliance, and expand the taxable economic base. Unlike conventional cash transactions, digital payment systems generate electronic records that enhance transparency, facilitate transaction verification, and enable tax authorities to conduct more systematic supervision.⁴⁵ Nevertheless, the growing dependence on digital transaction data also creates important legal questions regarding equality of tax treatment, proportionality of supervision, and consistency in regulatory implementation. International experience demonstrates that digital taxation remains challenged by legal uncertainty over taxpayer classification, overlapping jurisdiction, technological limitations, and inconsistencies in allocating taxing rights across digital transactions.⁴⁶ Within this broader transformation, QRIS has become Indonesia's principal digital payment infrastructure by integrating banks, fintech

⁴¹ Rizqiyanto et al., "Tax regulation challenges," 83. See also, Mahpudin, "Digital tax reform in Indonesia," 7036; Pulatov, "Taxation in the digital economy," 241.

⁴² Hapsari et al., "Taxing digital assets in emerging economies," 126. See also, Lannes et al., "Taxation Challenges in the Digital Economy," 143.

⁴³ Ahmad Alim Bachri et al., "Analyzing influence factors of consumers switching intentions from cash payments to quick response code Indonesian standard (QRIS) digital payments," *International Journal of Financial Studies* 13, no. 2 (2025): 65. See also, Hillary et al., "Driving Digital Payment Adoption," 4; Purnama et al., "Perceived Value, Trust, and User Experience," 671.

⁴⁴ Norawati et al., "Leveraging Intelligent Digital Payment Systems," 117.

⁴⁵ Mahpudin, "Digital tax reform in Indonesia," 7036. See also, Rizqiyanto et al., "Tax regulation challenges," 83.

⁴⁶ Mpofo, "Taxation of the digital economy," 219. See also, Ponomareva, "Digital transformation challenges," 154; Saptono et al., "Local government taxing power," 1153.

providers, merchants, and consumers into a unified payment ecosystem that promotes financial inclusion and transactional efficiency.⁴⁷ The traceability of QRIS transactions also offers opportunities to improve tax compliance through more transparent transaction records.⁴⁸ However, because digital transactions are considerably easier to monitor than conventional transactions, differences in fiscal supervision may unintentionally create disparities in tax collection and unequal treatment among taxpayers. Consequently, evaluating disparities in QRIS-based taxation requires examining not only administrative effectiveness but also the realization of substantive tax justice.

Disparities in tax collection in QRIS-based digital transactions indicate a normative imbalance in the application of the tax system within the national digital economic space. The development of QRIS as a modern payment instrument indeed strengthens transaction efficiency and the integration of the formal economy, but it also gives rise to increasingly visible differences in fiscal treatment between business actors and consumers.⁴⁹ Digital systems enable transactions to become more intensive, so that, in addition to allowing business actors to connect with the QRIS ecosystem, they also become more easily subject to monitoring and tax collection compared to conventional economic activities.⁵⁰ This condition raises questions regarding the consistency of the principles of equality before taxation and proportionality in digital tax practices, which have the potential to create competitive imbalances among digitalized business actors. This context can be seen in Table 2, which illustrates various forms of imbalance in regulation, supervision, and fiscal implications in QRIS-based digital transactions.

Table 2. Disparity in tax collection in QRIS-based digital transactions.

Legal basis	Regulatory uncertainty	Disparity in tax collection	Implications of justice
Law Number 7 of 2021	Digital tax standards have not been specifically regulated	Digital tax treatment varies	Tax equality has the potential to weaken
Law Number 6 of 1983	Digital transaction monitoring is not yet uniform	QRIS users are easier to monitor	Inequality of taxpayer supervision

⁴⁷ Almunawar, "Quick response code Indonesia standard (QRIS)," 8. See also, Junaedi et al., "Sustainable Usage Intention," 762.

⁴⁸ Norawati et al., "Leveraging Intelligent Digital Payment Systems," 117.

⁴⁹ Nabila, and Salsabilla Amalia Putri, "Deviation in public policy implementation: An analytical study of QRIS in Indonesia," *International Journal of Social and Political Sciences* 2, no. 1 (2025): 116.

⁵⁰ Mira Pramudianti et al., "The Effectiveness of Using QRIS Technology on Tax Collection: Study on Registered Smes at KPP Karangpilang Surabaya," *International Journal of Social and Management Studies* 4, no. 6 (2023): 64.

Legal basis	Regulatory uncertainty	Disparity in tax collection	Implications of justice
Bank Indonesia Regulation Number 21/18/PBI/2019	QRIS synchronization is not yet clear	Transaction levy standards are not yet equal	Fiscal legal certainty weakens
Law Number 8 of 1983	The digital VAT mechanism is not yet adaptive	The burden of digital transactions increases	Potential unfairness of tax burden
Law Number 7 of 1983	Digital income has not been classified in detail	QRIS transactions are easy to track	The basic ability to pay is weakening
Law Number 11 of 2008	Digital tax administration is not yet integrated	Transaction validity is not always uniform	Tax law uncertainty increases
Law Number 27 of 2022	Data usage limits are not detailed yet	QRIS data is easier to access	Procedural justice is potentially compromised
Law Number 21 of 2011	Oversight authorities of institutions overlap	Oversight standards vary across agencies	Tax regulatory certainty weakens

Table 2 illustrates disparities in tax collection in QRIS-based digital transactions, showing that the transformation of the national digital payment system has not been fully accompanied by fair and consistent harmonization of tax regulations. From Table 2, three important contexts regarding the dynamics of fiscal inequality in digital transactions can also be identified. First, there is regulatory uncertainty related to digital tax standards, synchronization of tax administration, and limits on the use of transaction data, resulting in monitoring and tax collection mechanisms that do not yet have uniform parameters. Second, QRIS transaction users tend to be more easily traceable and monitored compared to conventional economic actors, leading to disparities in fiscal treatment, supervision, and tax burdens between digital and non-digital sectors. Third, these conditions give rise to normative implications in the form of weakening principles of equality before taxation, legal certainty, and procedural justice within the digital tax system. From these three contexts, it can be seen that the digitalization of payments through QRIS still faces fundamental challenges in realizing a proportional and equitable tax collection system for all economic actors.

Disparities in tax collection in QRIS-based digital transactions indicate normative issues in the application of the principles of justice and equality of fiscal treatment within the digital tax system. The digitalization of payments should create administrative mechanisms that are more transparent, efficient, and proportional for all taxpayers.⁵¹ However, in practice, the intensification of

⁵¹ Tetyana Korolyuk et al., “Impact of Digitalization on the Tax System: New Approaches to Digital Taxation and Reporting,” In *2025 15th International Conference on Advanced Computer Information Technologies (ACIT)*, (Piscataway: IEEE, 2025), 421.

monitoring of QRIS transactions instead places digital business actors, both in the formal and informal sectors, in a more vulnerable position to fiscal control compared to conventional economic actors.⁵² This condition demonstrates that transaction traceability is used as the primary basis for tax supervision without being balanced by equal treatment standards across all economic activities. The absence of specific regulations regarding the classification of digital transactions, limits on data utilization, and synchronization of authority among institutions weakens legal certainty in taxation.⁵³ This condition has the potential to create structural injustice, as the burden of supervision and fiscal obligations tends to be disproportionately borne by certain economic groups.

QRIS-based digital transactions can be understood through tax law concepts that position the principles of equality before taxation and ability to pay as the main foundations of fiscal justice. From the perspective of equality before taxation, all taxpayers should receive equal treatment in supervision, determination of obligations, and tax collection mechanisms regardless of the type of transaction technology used.⁵⁴ However, the development of digital payment systems shows that business actors using QRIS tend to be more easily traceable and monitored compared to conventional economic activities.⁵⁵ This condition reflects an imbalance in the application of horizontal equity principles, as economic groups with relatively similar capacities may receive different fiscal treatment due to differences in transaction traceability. Legal certainty in taxation requires clear regulations regarding digital administrative standards and synchronization of authority to prevent fiscal discrimination and legal uncertainty for taxpayers within the digital economic ecosystem.⁵⁶

⁵² Jayaprada Putrevu, and Charilaos Mertzanis, "The adoption of digital payments in emerging economies: challenges and policy responses," *Digital Policy, Regulation and Governance* 26, no. 5 (2024): 488. See also, Rahma Yesi et al., "Impact of cashless payments on the welfare of informal workers in Indonesia: A qualitative study from Yogyakarta," *Satwika: Kajian Ilmu Budaya dan Perubahan Sosial* 9, no. 2 (2025): 425.

⁵³ Ana Cediël, "Domestic Tax Regulation in the Face of the Crypto Economy: Challenges Going Forward," In *Governance and Control of Data and Digital Economy in the European Single Market: Legal Framework for New Digital Assets, Identities and Data Spaces*, (Cham: Springer Nature Switzerland, 2025), 421.

⁵⁴ Erich Kirchler et al., "Enforced versus voluntary tax compliance: The "slippery slope" framework," *Journal of Economic Psychology* 29, no. 2 (2008): 216. See also, Daniel Klein et al., "Taxing the digital economy: Investor reaction to the european commission's digital tax proposals," *National Tax Journal* 75, no. 1 (2022): 78.

⁵⁵ Agni Agrasevy Dwiatma, and Chaikal Nuryakin, "The Effects of Non-Cash Transactions Through Quick Response Indonesian Standard (Qris) on the Number of Msmes Workers," *Jurnal Bina Praja* 17, no. 1 (2025): 36.

⁵⁶ Duncan Bentley, "Taxpayer rights and protections in a digital global environment," In *Ethics and taxation*, (Singapore: Springer Singapore, 2019), 278.

Tax collection systems for digital transactions in many countries adopt more adaptive approaches to fiscal justice and taxpayer protection. Monitoring is combined with proportionality and transparency to prevent discrimination against small businesses.⁵⁷ Fiscal treatment is often differentiated by business scale, transaction type, and taxpayers' capacity, ensuring proportional burdens.⁵⁸ This contrasts with systems relying mainly on transaction traceability to intensify supervision and maximize revenue. The need for synchronization between tax regulations, personal data protection, and fintech oversight to strengthen legal certainty, highlighting the importance of regulatory harmonization for aligning digital payments with tax justice.⁵⁹

Disparities in QRIS-based tax collection affect administration, fiscal justice, and public trust. QRIS users, being more easily monitored, face unequal treatment that weakens equality before taxation.⁶⁰ Inconsistencies in monitoring and data use create legal uncertainty, especially for micro-enterprises with limited capacity. Expanded supervision without proportional standards places small businesses in vulnerable positions compared to larger entities. Over time, this imbalance may reduce voluntary compliance, as taxation is perceived as emphasizing technological control over distributive justice, thereby widening inequality, hindering inclusion, and undermining fiscal legitimacy.

The findings indicate that disparities in QRIS-based tax collection are not merely administrative problems but also reflect broader challenges in designing an equitable digital tax system. Although QRIS contributes to greater transaction transparency, financial inclusion, and improved business performance, these advantages do not automatically guarantee equal fiscal treatment among taxpayers.⁶¹ Recent studies also show that the successful implementation of digital payment systems depends on public trust, user readiness, and balanced regulatory frameworks capable of minimizing technological barriers and encouraging voluntary adoption.⁶² From a taxation perspective, stronger transaction traceability should therefore be accompanied by clearer legal standards governing taxpayer classification, supervisory authority, proportional use of transaction data, and

⁵⁷ Jie Ouyang et al., "How does the development of digital finance affect small business tax compliance? Empirical evidence from China," *China Economic Review* 80, no. 3 (2023): 101971. See also, Buciora, and Jaworskab, "The costs of tax accounting digitalization," 5150.

⁵⁸ Pasu Sibarani et al., "Digital tax policies and compliance challenges for MSMEs in Indonesia," *Edelweiss Applied Science and Technology* 8, no. 6 (2024): 2822.

⁵⁹ Rizqiyanto et al., "Tax regulation challenges," 83.

⁶⁰ Pramudianti et al., "The Effectiveness of Using QRIS Technology," 64.

⁶¹ Kuswoyo et al., "The Influence of QRIS Payment Method Usage," 230. See also, Syanova, and Fajar, "Analysis of factors that influence," 335; Miko et al., "Utilization of QRIS and E-Wallet-Based Digital Payments," 4.

⁶² Fortino et al., "The Effect of Merchant Discount Rate," 298. See also, Hillary et al., "Driving Digital Payment Adoption," 4; Purnama et al., "Perceived Value, Trust, and User Experience," 671.

protection against discriminatory fiscal treatment.⁶³ Comparative experiences further suggest that adaptive regulatory harmonization, international cooperation, and coordinated technological governance are essential to reduce regulatory arbitrage and maintain consistency in digital tax administration across jurisdictions.⁶⁴ Accordingly, reducing disparities in QRIS-based tax collection requires integrating technological innovation with legal certainty, proportional supervision, and taxpayer protection so that digital taxation strengthens both fiscal effectiveness and substantive tax justice.

3.3. Vulnerability of Taxpayer Rights in QRIS-Based Digital Transactions

Digital transformation has fundamentally changed the relationship between taxation, technology, and the protection of taxpayer rights. As tax administrations increasingly rely on electronic payment systems and digital transaction records, fiscal supervision has become more comprehensive, enabling governments to improve tax compliance through real-time monitoring and automated verification processes.⁶⁵ While these developments enhance administrative efficiency and reduce information asymmetry, they also expand state access to taxpayers' economic data, creating new legal challenges concerning privacy, due process, transparency, and proportionality.⁶⁶ Contemporary digital tax governance therefore requires a balance between effective fiscal supervision and the protection of fundamental taxpayer rights. Within this context, QRIS represents an important component of Indonesia's digital payment ecosystem because it integrates financial institutions, merchants, and consumers into a standardized transaction infrastructure that generates highly traceable economic information.⁶⁷ Although QRIS strengthens financial inclusion and supports the formalization of digital economic activities, the increasing reliance on electronic transaction data raises questions regarding the legal limits of data utilization, institutional accountability, and taxpayers' procedural rights.⁶⁸ Consequently, evaluating QRIS-based taxation requires examining whether digital fiscal supervision remains compatible with constitutional guarantees of privacy, legal certainty, and equal legal protection.

⁶³ Mahpudin, "Digital tax reform in Indonesia," 7036. See also, Rizqiyanto et al., "Tax regulation challenges," 83.

⁶⁴ Li, and Liu, "The People's Republic of China's," 118. See also, Hapsari et al., "Taxing digital assets in emerging economies," 126; Lannes et al., "Taxation Challenges in the Digital Economy," 143.

⁶⁵ Mahpudin, "Digital tax reform in Indonesia," 7036. See also, Norawati et al., "Leveraging Intelligent Digital Payment Systems," 117.

⁶⁶ Ponomareva, "Digital transformation challenges," 154.

⁶⁷ Almunawar, "Quick response code Indonesia standard (QRIS)," 8. See also, Junaedi et al., "Sustainable Usage Intention," 0762.

⁶⁸ Kuswoyo et al., "The Influence of QRIS Payment Method Usage," 230. See also, Muningsgar, and Rahardiansah, "Pemberdayaan Hukum Pembayaran Digital," 405.

The vulnerability of taxpayers' rights in QRIS-based digital transactions indicates that the transformation of the national payment system not only brings economic efficiency but also raises normative issues related to the protection of citizens' rights within the digital taxation system. The integration of QRIS with electronic transaction monitoring enables the state to gain broader and more intensive access to the public's economic data, thereby increasing the scope of fiscal control over digital activities.⁶⁹ However, these developments have not been fully accompanied by detailed legal regulations concerning the limits of transaction data utilization, privacy protection, mechanisms for objections in digital taxation, and guarantees of proportional treatment for taxpayers. This condition raises concerns that the digitalization of taxation may shift the position of taxpayers from protected legal subjects to objects of technology-based administrative supervision. This context can be observed in Table 3, which illustrates various forms of vulnerability in the protection of taxpayers' rights in the practice of QRIS-based digital transactions.

Table 3. Vulnerability of taxpayer rights in QRIS-based digital transactions.

Legal basis	Protection of rights	Transaction monitoring	Implications of justice
Law Number 6 of 1983	QRIS data confidentiality has not been specifically regulated	Transaction data monitoring is very extensive	Procedural justice has the potential to weaken
Law Number 27 of 2022	QRIS data protection is not yet detailed	Transaction data is easily accessible across institutions	Taxpayer privacy may be compromised
Law Number 11 of 2008	Digital transaction security is recognized as normative	Electronic surveillance is becoming more integrated	Digital legal protection is not yet optimal
Bank Indonesia Regulation Number 21/18/PBI/2019	Regulatory focus on payment security	QRIS makes it easier to track digital transactions	Taxpayer supervision is increasingly intensive
Law Number 7 of 2021	Taxpayer protection is not yet detailed	Tax oversight integration is becoming more extensive	Taxpayer rights are potentially neglected
Law Number 39 of 1999	Citizens' privacy rights are guaranteed	Digital surveillance touches economic privacy	Fiscal justice has the potential to be disrupted

⁶⁹ Syarbini Ikhsan et al., "The Impact of QRIS Payment Usage on Business Income Growth in MSMEs," *Kompak: Jurnal Ilmiah Komputerisasi Akuntansi* 17, no. 2 (2024): 454.

Legal basis	Protection of rights	Transaction monitoring	Implications of justice
Law Number 21 of 2011	Digital protection standards are not yet integrated	Oversight of overlapping institutions	The certainty of legal protection is weakening
Law Number 14 of 2002	Taxpayers' right to appeal is recognized	Digital disputes use conventional mechanisms	Digital legal protection is not yet adaptive

Table 3 illustrates the vulnerability of taxpayers' rights in QRIS-based digital transactions, showing that the expansion of the national digital payment system has not been fully accompanied by the strengthening of legal protection for taxpayers' rights. From Table 3, three important contexts regarding the dynamics of legal protection in digital taxation can also be identified. First, various regulations still do not specifically govern the confidentiality of QRIS data, the limits on the use of transaction data, and standards for cross-institutional digital protection, resulting in a very broad scope of supervision over public economic activities. Second, the integration of electronic transaction monitoring through QRIS strengthens the traceability of taxpayers' economic activities; however, mechanisms for privacy protection, digital tax objections, and dispute resolution still tend to rely on conventional approaches. Third, these conditions give rise to normative implications in the form of weakened procedural justice, legal certainty in protection, and guarantees of privacy rights within the digital taxation system. From these three contexts, it can be seen that the transformation of QRIS-based tax supervision still faces fundamental challenges in maintaining a balance between the state's fiscal interests and the protection of taxpayers' rights.

The vulnerability of taxpayers' rights in QRIS-based digital transactions indicates normative issues in the relationship between the expansion of digital fiscal supervision and the protection of citizens' rights within the tax law system. The digitalization of taxation should not only enhance administrative efficiency and optimize state revenue but also ensure the protection of taxpayers' privacy.⁷⁰ However, the integration of QRIS with electronic transaction monitoring systems instead expands state access to public economic data without being balanced by detailed regulations on the limits of data utilization and protection against potential misuse of digital information. This condition places taxpayers in a more vulnerable position because their economic activities can be intensively tracked, while mechanisms for objections and dispute resolution still rely on conventional administrative approaches.⁷¹ Furthermore, overlapping supervisory authority among institutions may also weaken legal certainty in protection, thereby risking

⁷⁰ Andrea Purpura, "Case Law Note: Protection of Taxpayers' Personal Data and National Tax Interest: A Misstep by the European Court of Human Rights?," *Intertax* 49, no. 12 (2021): 255.

⁷¹ Bate, "Does digitalisation improve the mobilisation," 98.

the neglect of balance between state fiscal interests and the protection of taxpayers' rights in the digital economic space.⁷²

QRIS-based digital transactions can be interpreted through a normative approach that positions the protection of taxpayers' rights as an integral part of the legitimacy of the modern tax system. Every form of supervision and use of transaction data must have clear normative boundaries so that state authority does not expand excessively into the private sphere of citizens.⁷³ However, the integration of QRIS within the digital payment system shows a tendency toward expanding fiscal supervision that has not been fully accompanied by detailed regulations on data confidentiality and protection against misuse of transaction information. This condition reflects a tension between the function of taxation as a tool for state revenue and the principle of due process of law in protecting taxpayers' rights. Taxpayers must receive transparent, proportional, and adaptive treatment in every process of supervision and digital dispute resolution.⁷⁴ Without strong regulatory harmonization, the digitalization of taxation has the potential to weaken economic privacy and fail to provide legal certainty for taxpayers.⁷⁵

In modern countries, the protection of taxpayers' rights in digital transactions is treated as a core element of technology-based tax governance. Monitoring is accompanied by personal data safeguards and transparency standards, ensuring privacy and legal certainty.⁷⁶ Where regulations lack clear limits on data use, privacy protection is often neglected. Modern systems also adapt mechanisms for objections and dispute resolution electronically, providing faster and more proportional access to legal remedies. The principle of data minimization further ensures that only relevant information is collected, balancing fiscal supervision with privacy and legal protection.

In QRIS-based transactions, vulnerabilities extend beyond technical supervision to the quality of legal safeguards and fiscal legitimacy. Broad access to transaction data without clear limits risks weakening privacy, confidentiality, and

⁷² Ponomareva, "Digital transformation challenges," 154.

⁷³ Alicia Noviandari et al., "Regulatory challenges and legal authority in blockchain-based electronic transactions," In *AIP Conference Proceedings*, (New York: AIP Publishing LLC, 2026), 40028.

⁷⁴ Charles Dickson Usen, "Reframing "Technological Due Process" For Tax: Adapting Administrative Law Principles to Ai-Driven Audits, Automated Assessments, and Risk Scoring," (2025), 152.

⁷⁵ Romaito Azhar et al., "The Paradox of Religiosity: Corruption Practices in Islamic Faith-Based Organizations," *Criminology & Islamic Law* 1, no. 1 (2026): 9. See also, Sandra Wachter et al., "Why a right to explanation of automated decision-making does not exist in the general data protection regulation," *International data privacy law* 7, no. 2 (2017): 84.

⁷⁶ Kaja J. Fietkiewicz et al., "eGovernment in cities of the knowledge society. An empirical investigation of Smart Cities' governmental websites," *Government Information Quarterly* 34, no. 1 (2017): 79. See also, Wachter et al., "Why a right to explanation," 84.

procedural justice.⁷⁷ Unclear objection and dispute mechanisms reduce taxpayer protection against errors or misuse.⁷⁸ Without proportional standards, small businesses face greater risks of discrimination and unequal protection. This imbalance undermines trust, as digital supervision is perceived as prioritizing state control over rights, weakening compliance, expanding uncertainty, and threatening the legitimacy of digital fiscal governance.

The analysis demonstrates that protecting taxpayer rights should become an essential component of Indonesia's digital tax governance rather than merely a complementary aspect of tax administration. International experience shows that effective digital taxation depends not only on sophisticated monitoring technologies but also on comprehensive legal safeguards governing personal data protection, transparency, accountability, and accessible dispute resolution mechanisms.⁷⁹ Comparative regulatory developments further emphasize that technological innovation must be accompanied by adaptive legal harmonization capable of defining institutional responsibilities, limiting data utilization, and preventing excessive state intervention in citizens' economic activities.⁸⁰ In Indonesia, the continuing expansion of QRIS creates significant opportunities to strengthen voluntary tax compliance through transparent and reliable digital payment systems.⁸¹ However, these opportunities will only enhance fiscal legitimacy if taxpayers are provided with clear procedural guarantees, effective legal remedies, and certainty regarding the collection, processing, and use of transaction data. Therefore, strengthening taxpayer rights in QRIS-based transactions requires integrating digital payment regulation, taxation law, personal data protection, and financial supervision into a coherent legal framework that balances fiscal efficiency with constitutional principles of privacy, proportionality, due process, and legal certainty.

4. Conclusion

This study shows that the transformation of QRIS-based digital transactions has fundamentally reshaped national tax law, particularly in balancing fiscal supervision with the protection of justice principles. Payment digitalization is no longer merely an instrument of efficiency but also a mechanism of administrative control through integrated transaction data. Issues of tax justice, disparities in

⁷⁷ Usen, "Reframing "Technological Due Process" For Tax," 152.

⁷⁸ Bentley, "Taxpayer rights and protections," 278.

⁷⁹ Wachter et al., "Why a right to explanation," 84. See also, Fietkiewicz et al., "eGovernment in cities of the knowledge society," 79.

⁸⁰ Ponomareva, "Digital transformation challenges," 154.

⁸¹ Norawati et al., "Leveraging Intelligent Digital Payment Systems," 117.

collection, and vulnerabilities in taxpayer rights emerge due to the dominance of administrative-technological approaches over adaptive legal safeguards. The traceability of digital transactions has shifted fiscal relations between the state and society, subjecting digitally integrated groups to more intensive supervision. Thus, the challenge of digital taxation lies not only in revenue optimization but also in balancing efficiency, distributive justice, and the protection of citizens' rights.

Theoretically, this study contributes to tax law scholarship by positioning QRIS-based transactions as part of the broader transformation of relations between the state, technology, and taxpayer rights. It highlights tensions between fiscal optimization and fundamental principles such as equality before taxation, ability to pay, proportionality, and due process of law. This perspective supports the development of a digital tax law framework that is more adaptive to data protection, procedural justice, and regulatory harmonization.

Practically, the study provides clearer policy implications for regulators and tax authorities. First, the adoption of data minimization standards is essential to limit the collection of non-relevant economic information. Second, the establishment of digital tax thresholds or exemptions can prevent disproportionate burdens on micro and small enterprises. Third, the creation of electronic objection and dispute resolution mechanisms will strengthen procedural justice and taxpayer protection. Finally, closer synchronization between tax regulations, personal data protection, and fintech supervision is needed to enhance legal certainty, public trust, and the legitimacy of fiscal policy in the digital era.

References

- Adebiyi, Olubukola Omolara. "Taxation in the digital age: an examination of the necessity, feasibility, and implications of taxing virtual infrastructures." *Asian Journal of Economics, Business and Accounting* 23, no. 23 (2023): 13-35. <https://doi.org/10.9734/AJEBA/2023/v23i231168>
- Adelola, Tiwalade, Ray Dawson, and Firat Batmaz. "Privacy and data protection in E-commerce: The effectiveness of a government regulation approach in developing nations, using Nigeria as a case." In *The 9th International Conference for Internet Technology and Secured Transactions (ICITST-2014)*. Piscataway: IEEE, 2014. <https://doi.org/10.1109/ICITST.2014.7038812>
- Almunawar, Mohammad Nabil. "Quick response code Indonesia standard (QRIS): a policy-driven cashless payment system." *Journal of Science and Technology Policy Management* 12, no. 2 (2026): 1-19. <https://doi.org/10.1108/JSTPM-03-2025-0121>
- Ashok, P., and Giri Hallur. "Seamless mobility: Innovating the digital service landscape in telecom industry." In *International Conference on Cognitive Computing and Cyber Physical Systems*. Singapore: Springer Nature Singapore, 2023. https://doi.org/10.1007/978-981-97-2550-2_14
- Asmadi, Erwin, Adi Mansar, and Triono Eddy. "Actualization of criminal liability for personal data protection in the use of financial technology: a comparative study of Law Number 11 of 2008 concerning Information and Electronic Transactions and Law Number 27 of 2022 concerning Protection of Personal Data." *De Lega Lata: Jurnal Ilmu Hukum* 8, no. 2 (2023): 292-300. <https://doi.org/10.30596/dll.v8i2.15252>
- Azhar, Romaito, Cici Rifmayanti, Rahmat Amin Siregar, Aihani Rahmayani Harahap, and Muhammad Ikhsan. "The Paradox of Religiosity: Corruption Practices in Islamic Faith-Based Organizations." *Criminology & Islamic Law* 1, no. 1 (2026): 1-17. <https://journal.postinsti.com/index.php/cil/article/view/1>
- Bachri, Ahmad Alim, Mutia Maulida, Yuslena Sari, and Sunardi Sunardi. "Analyzing influence factors of consumers switching intentions from cash payments to quick response code Indonesian standard (QRIS) digital payments." *International Journal of Financial Studies* 13, no. 2 (2025): 50-72. <https://doi.org/10.3390/ijfs13020061>
- Bate, Akouété Paulin. "Does digitalisation improve the mobilisation of tax revenues in Africa?" *African Multidisciplinary Tax Journal* 2021, no. 1 (2021): 94-112. <https://doi.org/10.47348/AMTJ/2021/i1a6>
- Bentley, Duncan. "Taxpayer rights and protections in a digital global environment." In *Ethics and taxation*. Singapore: Springer Singapore, 2019. https://doi.org/10.1007/978-981-15-0089-3_11
- Buciora, Grzegorz, and Elżbieta Jaworskab. "The costs of tax accounting digitalization from the perspective of Polish small enterprises." *Procedia Computer Science* 270, no. 2 (2025): 5147-5156. <https://doi.org/10.1016/j.procs.2025.09.642>
- Cahyadini, Amelia, Josep Irvan Gilang Hutagalung, and Zainal Muttaqin. "The urgency of reforming Indonesia's tax Law in the face of economic digitalization." *Cogent Social Sciences* 9, no. 2 (2023): 2285231-2285254. <https://doi.org/10.1080/23311886.2023.2285242>
- Cediel, Ana. "Domestic Tax Regulation in the Face of the Crypto Economy: Challenges Going Forward." In *Governance and Control of Data and Digital Economy in the European Single Market: Legal Framework for New Digital Assets, Identities and Data Spaces*. Cham: Springer Nature Switzerland, 2025. https://doi.org/10.1007/978-3-031-74889-9_18
- Dale, Stephen. "The digitalisation of the global economy some thoughts on the consequences for tax systems and their administration." In *ERA Forum*. Berlin: Springer Berlin Heidelberg, 2018.

- Dwiatma, Agni Agrasevy, and Chaikal Nuryakin. "The Effects Of Non-Cash Transactions Through Quick Response Indonesian Standard (Qris) On The Number Of Msmes Workers." *Jurnal Bina Praja* 17, no. 1 (2025): 33-41. <https://doi.org/10.21787/jbp.17.2025.33-41>
- Fanani, Zainal, Bustanul Arifin, and Fadwa Aly Elsayed Mohamed. "Monetisasi Data, Sentralisasi QRIS, dan Tantangan Integrasi Nilai Syariah dalam Sistem Pembayaran Digital Indonesia:(Data Monetization, QRIS Centralization, and the Challenge of Sharia Value Integration in Indonesia's Digital Payment System)." *Al-Muhasib: Journal of Islamic Accounting and Finance* 5, no. 1 (2025): 21-54. <https://doi.org/10.30762/al-muhasib.v5i1.2388>
- Fietkiewicz, Kaja J., Agnes Mainka, and Wolfgang G. Stock. "eGovernment in cities of the knowledge society. An empirical investigation of Smart Cities' governmental websites." *Government Information Quarterly* 34, no. 1 (2017): 75-83. <https://doi.org/10.1016/j.giq.2016.08.003>
- Fortino, Filbert, George Christy Hendrawan, Hessel Gerald Steven, and Nur Anisa. "The Effect of Merchant Discount Rate and Settlement Fee on the Adoption of QRIS Among Potential Users as a Payment Option." In *2025 9th International Conference on Information Technology (InCIT)*. Piscataway: IEEE, 2025. <https://doi.org/10.1109/InCIT66780.2025.11276055>
- Geovanni, Franciscus, and Nur Azmi Karim. "The Effect of Security and Convenience on the Interest in Using Quick Response Code Indonesia Standard (QRIS)." In *2025 International Conference on ICT for Smart Society (ICISS)*. Piscataway: IEEE, 2025. <https://doi.org/10.1109/ICISS66954.2025.11389272>
- Hapsari, Nidya, Haula Rosdiana, and Maria RUD Tambunan. "Taxing digital assets in emerging economies: a lesson from a systematic literature review." *International Journal of Technology, Policy and Management* 26, no. 1 (2026): 114-137. <https://doi.org/10.1504/IJTPM.2026.152568>
- Hillary, Huberta, Aurelia Agatha, and Iston Dwija Utama. "Driving Digital Payment Adoption: Addressing Key Barriers for SMEs." In *2024 Ninth International Conference on Informatics and Computing (ICIC)*. Piscataway: IEEE, 2024. <https://doi.org/10.1109/ICIC64337.2024.10956355>
- Ikhsan, Syarbini, Umiaty Hamzani, Gita Desyana, and Djunita Permata Indah. "The Impact of QRIS Payment Usage on Business Income Growth in MSMEs." *Kompak: Jurnal Ilmiah Komputerisasi Akuntansi* 17, no. 2 (2024): 450-459. <https://doi.org/10.51903/kompak.v17i2.2178>
- Junaedi, Yosua Brilian, Jocelyn Florence Alexandriel, and Tiurida Lily Anita. "Sustainable Usage Intention: QRIS (Quick Response Code Indonesian Standard) Payment Acceptance for Small and Medium Enterprises." In *2024 9th International Conference on Business and Industrial Research (ICBIR)*. Piscataway: IEEE, 2024. <https://doi.org/10.1109/ICBIR61386.2024.10875860>
- Khoruzhy, Valeriy, Yuriy Kolesnikov, Aleksandra Zakharova, and Alexei Malenkin. "Tax Residency in the European Union and the Problems of Implementing Anti-Tax Avoidance Legislation in the Frames of Digital Competition: A View From Non-Residents." *Journal of Public Affairs* 26, no. 1 (2026): e70101-e70112. <https://doi.org/10.1002/pa.70106>
- Kirchler, Erich, Erik Hoelzl, and Ingrid Wahl. "Enforced versus voluntary tax compliance: The "slippery slope" framework." *Journal of Economic psychology* 29, no. 2 (2008): 210-225. <https://doi.org/10.1016/j.joep.2007.05.004>
- Klein, Daniel, Christopher A. Ludwig, and Christoph Spengel. "Taxing the digital economy: Investor reaction to the european commission's digital tax proposals." *National Tax Journal* 75, no. 1 (2022): 61-92. <https://doi.org/10.1086/717518>
- Korolyuk, Tetyana, Serhii Spivak, Volodymyr Uhryn, and Andriy Kizyma. "Impact of Digitalization on the Tax System: New Approaches to Digital Taxation and Reporting." In *2025 15th International Conference on Advanced Computer Information Technologies (ACIT)*. Piscataway: IEEE, 2025. <https://doi.org/10.1109/ACIT65614.2025.11185459>

- Kuswoyo, Dicky Andhika, Ijaz Putra Gunawan, and Cadelina Cassandra. "The Influence of QRIS Payment Method Usage and Effectiveness Level on Small and Medium Enterprise (SME)." In *2024 International Conference on Electrical Engineering and Computer Science (ICECOS)*. Piscataway: IEEE, 2024. <https://doi.org/10.1109/ICECOS63900.2024.10791218>
- Lambert, Vickie A., and Clinton E. Lambert. "Qualitative descriptive research: An acceptable design." *Pacific Rim international journal of nursing research* 16, no. 4 (2012): 255-256. <https://he02.tci-thaijo.org/index.php/PRIJNR/article/view/5805>
- Lannes, Y. N. D. C., F. H. De Gioia, and J. E. B. De Amorim. "Taxation Challenges In The Digital Economy: Beps And The Brazilian Reality Desafios Da Tributação Da Economia Digital: Beps Ea Realidade Brasileira." (2022).
- Li, Yumin, and Minquan Liu. "The People's Republic of China's Tax Reform in the Digital Economy: Progress and Challenges." *Taxation in the Digital Economy* 11, no. 3 (2022): 109-127. <https://doi.org/10.4324/9781003196020-8>
- Mahpudin, Endang. "Digital tax reform in Indonesia: Perspective on tax policy development." *Journal of Infrastructure, Policy and Development* 8, no. 8 (2024): 7024-7045. <https://doi.org/10.24294/jipd.v8i8.7032>
- Miko, Nicholas, Russel Joe, and Tanty Oktavia. "Utilization of QRIS and E-Wallet-Based Digital Payments to Increase the Competitiveness of MSMEs." In *2025 International Conference on ICT for Smart Society (ICISS)*. Piscataway: IEEE, 2025. <https://doi.org/10.1109/ICISS66954.2025.11389394>
- Mpofu, Favourate Y. "Taxation of the digital economy and direct digital service taxes: Opportunities, challenges, and implications for African countries." *Economies* 10, no. 9 (2022): 210-228. <https://doi.org/10.3390/economies10090219>
- Muninggar, Roro Ajeng, and Trubus Rahardiansah. "Pemberdayaan Hukum Pembayaran Digital melalui Penggunaan Teknologi Quick Response Code Indonesian Standar di Masyarakat." *Jurnal Pembangunan Hukum Indonesia* 6, no. 3 (2024): 394-417. <https://doi.org/10.14710/jphi.v6i3.394-417>
- Nabila, Alya Putri, Sri Raharso, and Ermina Tiorida. "The Influence of Trust and Transaction Security on Interest in Using The QRIS Payment System." *Airlangga Journal of Innovation Management* 6, no. 2 (2025): 248-260. <https://doi.org/10.20473/ajim.v6i2.72597>
- Nabila, Nabila, and Salsabilla Amalia Putri. "Deviation in public policy implementation: An analytical study of QRIS in Indonesia." *International Journal of Social and Political Sciences* 2, no. 1 (2025): 107-121. <https://doi.org/10.69812/ijsp.v2i1.102>
- Ni, Huiqiang, Zhen Yang, and Wenlong Liu. "Two Birds With One Stone: Digitisation of Tax Administration and the Digital Transformation of Firms." *Asian-Pacific Economic Literature* 14, no. 2 (2025): 114-131. <https://doi.org/10.1111/apel.70011>
- Norawati, Suarni, Muhammad Luthfi Hamzah, Akmal Andri Yantama, M. Zacky, and Diva Nazla Zaira. "Leveraging Intelligent Digital Payment Systems for Tax Compliance Enhancement: Evidence from Indonesia's Motorized Tax Sector using SEM-PLS." In *2025 8th International Seminar on Research of Information Technology and Intelligent Systems (ISRITI)*. Piscataway: IEEE, 2025. <https://doi.org/10.1109/ISRITI68345.2025.11393346>
- Noviandari, Alicia, Mochammad Tanzil Multazam, Kurbanova Mehriniso Nematjanovna, Noor Fatimah Mediawati, Sri Budi Purwaningsih, and Ubaydulla S. Nadirkhanov. "Regulatory challenges and legal authority in blockchain-based electronic transactions." In *AIP Conference Proceedings*. New York: AIP Publishing LLC, 2026. <https://doi.org/10.1063/5.0317043>
- Olewi, Raad. "The impact of electronic data interchange on accounting systems." *International Journal of Professional Business Review*. 8, no. 4 (2023): 1-28.
- Onwuegbuzie, Anthony J., Nancy L. Leech, and Kathleen MT Collins. "Innovative qualitative data collection techniques for conducting literature reviews/research syntheses." *The Sage handbook*

- of innovation in social research methods* 8, no. 1 (2011): 182-204. <https://doi.org/10.4135/9781446268261.n13>
- Ouyang, Jie, Shiyuan Liu, and Haoran Li. "How does the development of digital finance affect small business tax compliance? Empirical evidence from China." *China Economic Review* 80, no. 3 (2023): 101959-101988. 101971. <https://doi.org/10.1016/j.chieco.2023.101971>
- Pali, Anisa, and Shezeina Rama. "Digital Transformation and Its Impact on Public Services: The Case of the Tax Administration Services." *Interdisciplinary Journal of Research and Development* 12, no. 1 (2025): 40-40. <https://doi.org/10.56345/ijrdv12n1s106>
- Ponomareva, Karina. "Digital transformation challenges to the tax security of the state in russia and other brics countries." *BRICS Law Journal* 10, no. 4 (2023): 142-161. <https://doi.org/10.21684/2412-2343-2023-10-4-142-161>
- Pramudianti, Mira, Erna Hendrawati, and Khoiril Abidin. "The Effectiveness of Using QRIS Technology on Tax Collection: Study on Registered Smes at KPP Karangpilang Surabaya." *International Journal of Social and Management Studies* 4, no. 6 (2023): 62-66. <https://doi.org/10.5555/ijosmas.v4i6.383>
- Pulatov, Alisher. "Taxation in the digital economy in Uzbekistan." In *The Political Economy of Central Asian Law: A Law and Society Analysis*. Cham: Springer Nature Switzerland, 2024. https://doi.org/10.1007/978-3-031-55341-7_9
- Purnama, Priska Arindya, Fairuz Iqbal Maulana, Puput Dani Prasetyo Adi, Miftahul Hamim, Vicky Angga Cahyana, and Dian Lestari. "Perceived Value, Trust, and User Experience in Driving Digital Payment QRIS Adoption: Evidence from MSMEs in Malang." In *2025 International Conference on Informatics, Multimedia, Cyber and Information System (ICIMCIS)*. Piscataway: IEEE, 2025. <https://doi.org/10.1109/ICIMCIS68501.2025.11327061>
- Purpura, Andrea. "Case Law Note: Protection of Taxpayers' Personal Data and National Tax Interest: A Misstep by the European Court of Human Rights?." *Intertax* 49, no. 12 (2021): 241-267. <https://doi.org/10.54648/taxi2021105>
- Putrevu, Jayaprada, and Charilaos Mertzanis. "The adoption of digital payments in emerging economies: challenges and policy responses." *Digital Policy, Regulation and Governance* 26, no. 5 (2024): 476-500. <https://doi.org/10.1108/DPRG-06-2023-0077>
- Rini, Esi Sekar. "Taxing the Smart Retail: Value Added Tax Policy Analysis on Digital Transactions in Indonesia." In *2020 International Conference on ICT for Smart Society (ICISS)*. Piscataway: IEEE, 2020. <https://doi.org/10.1109/ICISS50791.2020.9307601>
- Rizqiyanto, Naufal, M. Rizqi, Fahmil Alfian Rizkia Afsa, and Badreddine Berrahlia. "Tax regulation challenges in the digital economy era: Legal analysis and implications in indonesia." *Trunojoyo Law Review* 7, no. 1 (2025): 65-102. <https://doi.org/10.21107/tlr.v7i1.28540>
- Samar, Lida Nicole Sante, Ana Camila Vargas Huapaya, Jesús Martín Trigos Mejía, E. N. M. Sanchez, and H. A. F. Tupiño. "Digital Transformation in Taxation: The Role of Artificial Intelligence and Big Data in the Modernization of Fiscal Administration, 2024." In *Proceedings of the 23rd LACCEI International Multi-Conference for Engineering, Education and Technology (LACCEI): Engineering, Artificial Intelligence, and Sustainable Technologies in service of society*. 2025. <https://dx.doi.org/10.18687/LACCEI2025.1.1.1187>
- Saptono, Prianto Budi, Ismail Khozen, and Sabina Hodžić. "Local government taxing power for digital consumption: A Case study of hotel, restaurant, and entertainment taxes in Indonesia." *Lex localis* 21, no. 4 (2023): 1141-1165. [https://doi.org/10.4335/21.4.1141-1165\(2023\)](https://doi.org/10.4335/21.4.1141-1165(2023))
- Sekwenz, Marie-Therese, and Rita Gsenger. "The Digital Services Act: Online Risks, Transparency and Data Access." *Digital Decade* 19, no. 3 (2025): 115-140. <https://doi.org/10.5771/9783748943990-115>

- Setyadi, M. Gunawan, and Tino Feri Efendi. "Integrating Tax Fairness, Government Marketing Strategy, and Institutional Trust: A Moderated Mediation Model of Tax Compliance in Indonesia." *International Journal of Economics, Business and Accounting Research (IJEBAR)* 9, no. 4 (2025): 357-378. <https://doi.org/10.29040/ijebar.v9i4.19495>
- Sibarani, Pasu, Agustin Fadjarenie, Catur Widayati, and Deden Tarmidi. "Digital tax policies and compliance challenges for MSMEs in Indonesia." *Edelweiss Applied Science and Technology* 8, no. 6 (2024): 2817-2835. <https://doi.org/10.55214/25768484.v8i6.2560>
- Simanjuntak, Berliana, Aura Permata Putri, and Aisyah Wafa Syahidah. "Efisiensi Penggunaan Quick Response Code Indonesia Standard (QRIS) Dalam Mendukung Penjualan di Era Digital." *Media Hukum Indonesia (MHI)* 2, no. 4 (2024): 23-51. <https://doi.org/10.5281/zenodo.14192809>
- Sonjaya, Adang, Edwin Basmar, Tuti Ermawati, Anggi Putri Kurniadi, Helena Dasilva, Kanetasya Sabilla, Muhamad Takhim, Ratih Pratiwi, and Sri Yanthy Yosepha. "How the Integration of Payment Systems Through QRIS Accelerates Economic and Financial Cooperation in the ASEAN Region." *International Journal of Sustainable Development & Planning* 20, no. 3 (2025): <https://doi.org/91-123.10.18280/ijstdp.200305>
- Stokes, Peter, and Christine Urquhart. "Qualitative interpretative categorisation for efficient data analysis in a mixed methods information behaviour study." (2013). <http://InformationR.net/ir/18-1/paper555.html>
- Suyono, Windy Permata, Dwi Handarini, Nuramalia Hasanah, Ratna Anggraini, Rio Firnanda, Surya Anugrah, Eka Septariana Puspa, and Septi Nurmalita. "Enhancing Tax Compliance Among E-commerce MSMEs: The Impact of Digital Financial Technology and Tax Knowledge with Digital Trust as a Moderating Variable." In *World Conference on Information Systems for Business Management*. Cham: Springer Nature Switzerland, 2025. https://doi.org/10.1007/978-3-032-13203-1_7
- Syanova, Raja, and Ahmad Nurul Fajar. "Analysis of factors that influence use behaviour of using Qris payments for UMKM in Bekasi." *Journal of Logistics, Informatics and Service Science* 11, no. 7 (2024): 324-341. <https://doi.org/10.33168/JLISS.2024.0717>
- Taqwallah, Taqwallah, and Sigit Nurhadi Nugraha. "Tax Justice: A Study of Value Added Tax (VAT) Policy in Indonesia." *Journal of Public Representative and Society Provision* 6, no. 1 (2026): 144-163. <https://doi.org/10.55885/jprsp.v6i1.754>
- Trien, Nguyen Thi. "Equity in Tax Law: Vietnam Case Study." *Administrative and Environmental Law Review* 3, no. 2 (2022): 97-106. <https://doi.org/10.25041/aclr.v3i2.2662>
- Usen, Charles Dickson. "Reframing "Technological Due Process" For Tax: Adapting Administrative Law Principles to Ai-Driven Audits, Automated Assessments, and Risk Scoring." (2025). <https://doi.org/10.47772/IJRISS.2025.91200070>
- Wachter, Sandra, Brent Mittelstadt, and Luciano Floridi. "Why a right to explanation of automated decision-making does not exist in the general data protection regulation." *International data privacy law* 7, no. 2 (2017): 76-99. <https://doi.org/10.1093/idpl/ix005>
- Widjaja, Michael, and Nilo Legowo. "Examining Drivers of Integrated QR Payment System (QRIS) Adoption Among Generation X in Indonesia." *MAJCAFE: Malaysian Journal of Consumer and Family Economics* 34, no. 4 (2025): 3427-3462. <https://doi.org/10.60016/majcafe.v34i11>
- Xia, Changyuan, Yingzi Ye, and Haizong Yu. "RegTech and regulators' error detection activities: Evidence from China." *Finance Research Letters* 78, no.2 (2025): 107185-107215. <https://doi.org/10.1016/j.frl.2025.107198>
- Yesi, Rahma, Nia Sunatun Saniyah, Irham Dani, Muhammad Ikhsan, and Silverius Djuni Prihatin. "Impact of cashless payments on the welfare of informal workers in Indonesia: A qualitative study from Yogyakarta." *Satwika: Kajian Ilmu Budaya dan Perubahan Sosial* 9, no. 2 (2025): 420-430. <https://doi.org/10.22219/satwika.v9i2.41109>
-

Yuspin, Wardah, and Abdy Nagoro. "Penerapan kebijakan countercyclical terhadap fintech syariah peer to peer lending: Studi kasus PT. Alami Fintek Sharia dan PT. Investree Radhika Jaya." *Jurnal Hukum Magnum Opus* 6, no. 1 (2023): 71-87.
<https://doi.org/10.30996/jhmo.v6i1.7213>