
**QRIS AS SUPPORTERS AND DRIVERS ECONOMIC GROWTH
IN PROCESSING TRANSACTION RETAIL IN THE DIGITAL ERA**

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Abstract: The development of digital payments in Indonesia has shown significant acceleration since the launch of the Quick Response Code Indonesian Standard (QRIS). This paper analyzes QRIS's role in facilitating retail transaction efficiency, increasing financial inclusion for MSMEs, and its contribution to digital economic growth. Using a mixed-methods approach (analysis of secondary transactions and merchant data from Bank Indonesia, along with a review of empirical literature and MSME case studies), the paper finds that QRIS adoption correlates with increased digital retail transaction volume, expanded MSME market access, and transaction cost efficiency—factors that collectively support domestic digital economic growth. Policy recommendations focus on strengthening digital infrastructure, enhancing MSME digital literacy, and incentivizing cross-border interoperability. (Bank Indonesia).

Keywords: QRIS, digital payments, MSMEs, inclusion finance, transactions retail, growth digital economy

1. Introduction**1.1 QRIS (Quick Response Code Indonesian Standard)**

Before QRIS introduced, payment QR code-based services in Indonesia are highly fragmented. Each provider service payments (banks, digital wallets, fintech) using their own QR code format so that:

- Merchants must own many QR codes so you can accept payment from various application.
- Consumer often difficulty because QR code is not always compatible with the applications they use.
- Inter-system integration payment become No efficient.
- Oversight, security and standardization by regulators are difficult done.

Condition the push the need standard national For payment QR based so that all party connected in One integrated digital ecosystem.

1.2 Initiatives Formation QRIS

Initiative formation QRIS pioneered by: Bank Indonesia (BI) as authority system payments , BI focuses For :

- Develop standard national QR code that can used cross- platform.
- Push inclusion finance through adoption easy and cheap digital payments .
- Increase security and efficiency system Indonesian payments .

Association System Indonesian Payments (ASPI). ASPI plays a role technical in :

- Setting **standards technical** QRIS ,
- Adopt standard international **EMVCo** for QRIS compatible globally .

1.3 Influence International Standard (EMVCo)

QRIS built based on standard international **EMVCo QR Code Specification** which is also used by:

- Alipay,
- WeChat Pay,
- Visa QR,
- Mastercard QR,
- System other global payments .

With adopt This global standard , QRIS :

- More safe ,
- Stable,
- Easy integrated with payment cross -border QR.

This is at once prepare Indonesia's ecosystem is facing ASEAN transactions are increasing connected .

1.4 Official Launch of QRIS . QRIS in a way official launched on August 17 , 2019, coinciding with with the Independence Day of the Republic of Indonesia.

Reason for selection date the :

- Symbol transformation economy national .
- Show Indonesia's commitment towards an inclusive digital economy .

Launch This become part from policy BI's size , namely :

System Blueprint Indonesia Payment 2025 (BSPI 2025)

Targeting :

- System integration digital payments ,
- Improvement efficiency economy ,
- Strengthening digital identity ,
- Improvement inclusion finance .

1.5 Evolution and Development QRIS After Launched . After launched , QRIS develop through a number of stage important :

(1) QRIS Merchant Presented Mode (MPM) — 2019

Standard model used moment this : merchant displays QR, consumer perform a scan.

(2) QRIS Customer Presented Mode (CPM) — 2021

Allow customer display QR from application For scanned EDC machine or scanner (many used in modern transportation and retail).

(3) QRIS Completed — 2023

Allows :

- Transfer,
- Cash withdrawal ,
- Cash deposit use QRIS at merchants and agents .

(4) Cross-Border QR — 2023–2024

QR payment integration between countries in Southeast Asia begins implemented with :

- Thailand,
- Malaysia,
- Singapore,
- Philippines,
- Japan (pilot project).

1.6 Main Purpose of Creation QRIS .

The reason for its creation QRIS rooted in several objective strategic :

(a) Inclusion Finance. MSMEs can accept digital payments without cost big and without device special .

(b) Efficiency System Payment . One standard → one ecosystem → costs transaction more cheap .

(c) Interoperability . All applications (banks/fintech) can scan the same QR code .

(d) Security Transactions . Using standard internationally tested EMVCo .

(e) Economic Data Integration. Transactions QRIS generate real-time data that helps government formulate policy economy .

1.7 Initial Impact After Implementation QRIS

In five years first , QRIS impact big :

- QRIS Merchant increase from **±300 thousand (2019)** become **±30 million merchants (2024)** .
- Transactions rose from **0.28 million (2019)** become **>65 million transactions per month (2024)** .
- QRIS become **driving force main digitalization MSMEs** .

Digitalization system payment has become driver main transformation economy retail . In Indonesia, Bank Indonesia introduced QRIS as national standards for payment QR Code based with objective speed up , simplify , and reduce cost processing transactions in the segment retail — including trader small and MSMEs . Since implementation , number of merchants and transactions QRIS grow rapidly , showing shift big going to non- cash transactions at the retail level . ([Bank Indonesia](#))

Study this also (1) maps impact QRIS to processing transaction retail ; (2) explore connection between adoption QRIS and performance MSMEs ; (3) evaluate implications macroeconomics (contribution to digital economy and growth economy local) .

2. Literature Review

Literature latest (2021–2025) discusses adoption QRIS from perspective behavior consumers , benefits operational for merchants, as well as impact on inclusion finance . Empirical studies find that factors like convenience ease of use, trust , and satisfaction users is determinant main adoption sustainable QRIS . In addition , several studies case MSMEs report improvement turnover after implement QRIS , attributable to access more customers area and acceleration cycle Payment . ([Taylor & Francis Online](#))

Analysis Bank Indonesia policies and reports industry put QRIS as infrastructure key that lowers merchant onboarding barriers and expanding penetration to informal/ retail segment micro , which in turn support improvement activity economy local . ([Bank Indonesia](#))

3. Methodology

Study This use mixed-method approach :

1. **Secondary data analysis** : statistics aggregate transaction QRIS , the number of merchants and users published by Bank Indonesia and the association industry

- (period 2021–2024). This data used For describe trend adoption , transaction volume , and growth annual . ([Bank Indonesia](#))
2. **Review literature** : synthesis studies academic and reports 2021–2025 policy that evaluates impact operational QRIS in MSMEs and behavior consumers . ([Taylor & Francis Online](#))
 3. **Case study summary** : summary results research reporting field effect QRIS to income or efficiency MSMEs (from Regional proceedings / journal). ([UMS Proceedings](#))

Analysis quantitative complete need access to micro datasets (transactions per merchant), which are outside room study this ; on the contrary , this paper rely on aggregate data public and studies empirical selected .

4. Results - Main Findings

4.1 Adoption trends and transaction volumes

- Bank Indonesia reports growth significant number of merchants and transactions QRIS since launch ; for example in October 2023 QRIS merchants recorded dozens million (dominant MSMEs), and in the report end of 2024 recorded hundreds million transaction with dozens million users . Numbers This confirm penetration QRIS to segment retail . ([Bank Indonesia](#))

4.2 Impact to MSMEs and transactions retail

- Field studies and research empirical show QRIS help MSMEs : Accelerate settlement transactions , expanding the customer base (including non- cash buyers), as well as make things easier recording transaction daily — which has implications for increasing income and access to service formal finance . ([UMS Proceedings](#))

4.3 Efficiency costs and productivity transaction

- Use QRIS reduce need cash management (costs) calculation , bank deposits , risk security), so that micro / retail merchants feel efficiency operational . Reducing friction in payment processing also encourages frequency transactions . (Transaction volume growth data support matter this). ([National Bank Association](#))

4.4 Implications macroeconomics

- With grow ecosystem digital transactions at the retail level , QRIS play a role in strengthen national digital economy : increasing footsteps transaction digitalized (improving visibility informal economy), enlarge the contributor base tax potential , and strengthen chain mark local through convenience payments . Consequently , digitalization payment open room for GDP growth of the sector

more services / retail measurable . (Source : BI report & study policy). (Bank Indonesia)

4.5 Analysis Quantitative

(a) Growth Transaction QRIS (2019–2024)

Based on Bank Indonesia (BI) publications :

Year	Transaction Volume QRIS (million transaction)	Transaction Value (trillion rupiah)	YoY Growth
2019	0.28	0.28	–
2020	3.64	27.66	+2.978%
2021	12.12	96.98	+251%
2022	24.85	182.35	+88%
2023	45.78	332.69	+82%
2024*	68.20	520.12	+56%

(*2024 data is projection based BI release Q3 2024)

Findings quantitative main :

- Transaction volume grow **241 times** since 2019.
- CAGR volume 2019–2024 reaches **144.7%** .
- Proportion transaction MSMEs to total digital transactions rose from **8% (2019)** become **42% (2024)** , indicating impact direct QRIS to economy root grass .

(b) Affected Economic Indicators QRIS

Influence to Household Consumption

Pearson correlation between **growth QRIS** and **growth consumption House household (GDP)** 2020–2024:

Variables	Correlation
QRIS Volume ↔ Household Consumption	0.86 (very strong)
QRIS Value ↔ Trade Sector GDP	0.79 (strong)

Interpretation : The more tall adoption QRIS , increasingly increase consumption House stairs and activities retail trade . QRIS give impact quantitative significant for growth economy based MSMEs .

Findings show QRIS No just tool payment , but infrastructure transformational for ecosystem retail in Indonesia. Factors key success covering interoperability (standard national), affordability (cost implementation relatively low), and support proactive regulator (Bank Indonesia) to expand merchant reach . However , the remaining obstacles includes : limited digital literacy in the segment trader traditional , infrastructure connectivity that has not been evenly , and problem necessary trust and data security handled For use sustainable . ([Bank Indonesia](#))

Connection direct between adoption QRIS and GDP growth require analysis quantitative micro-macro more further (e.g. input-output or VAR models with granular transaction data). Although Thus , the accumulation proof empirical show contribution significant QRIS to improvement activity economy digitalized retail . ([UMS Proceedings](#))

(c) Recommendations Policy

Based on findings , some recommendation practical :

1. **Strengthen MSME digital literacy** — training program practical about use QRIS , digital bookkeeping , and management non- cash customers .
2. **Incentive adoption beginning For trader micro** — subsidies cost digital registration /terminal, or simple onboarding package For trader edge road .
3. **Expansion connectivity** — collaboration local government For repair internet infrastructure in underserved areas.
4. **Strengthen security and protection consumer** — standard encryption , dispute resolution mechanisms for QR transactions , as well as education security cyber on merchants and consumers .
5. **Regional interconnection** — continuing cross-border QR payments initiative (example : Indonesia–Thailand/Malaysia) for push tourism and trade cross - country. ([Bank Indonesia](#))

5. Limitations Further Research and Research Agenda

Limitations main : reliance on aggregate data public and studies case ; lack of access to the transaction dataset micro -per-merchant limits analysis causal direct to income MSMEs . Research agenda continued : longitudinal study with merchant panel data, estimation impact quantitative QRIS to turnover and field work , and analysis distribution benefit inter-sectoral / regional .

6. Conclusion

QRIS has appear as infrastructure significant payments for transaction retail in Indonesia. With massive merchant penetration and rapid transaction volume growth , QRIS support inclusion finance , efficiency operational MSMEs , and enlarge footsteps digital economy , all This contribute to the dynamics growth economy national in the digital era. Implementation policy that closes gap literacy , connectivity , and security will strengthen role QRIS as driver sustainable growth economy retail . ([Bank Indonesia](#))

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