Assessment of the implementation and usage of QRIS among small and micro-merchants in Indonesia



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List of abbreviations

АТМ	Automated teller machine	МРМ	Merchant-presented mode
BI	Bank of Indonesia	MSME	Micro, small, and medium enterprises
СРМ	Consumer-presented mode	отс	Over the counter
DFS	Digital financial services	P2P	Person-to-person
EDC	Electronic data capture	PoS	Point of sale
FSP	Financial service provider	QRIS	Quick Response Code Indonesian Standard
G2P	Government-to-person	SP	Service provider
Gol	Government of Indonesia	SLA	Service level agreement
GRM	Grievance resolution mechanism	TAT	Turnaround time
IDR	Indonesian Rupiah	ттм	Non face-to-face QRIS transaction
IVR	Interactive voice response	USD	US Dollar
MDR	Merchant discount rate	WA	WhatsApp



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Note for the reader



This report is an output of the field survey conducted to assess the usage patterns of DFS, particularly QRIS, among micro and small merchants in Indonesia. The study's objective is to provide reliable information and possible opportunities to increase uptake of QRIS by merchants.

MSC conducted a quantitative survey of 610 merchants in September and October, 2021. We carried out the survey across eight major cities, with varying population sizes, across the different island groups in Indonesia. We also had detailed qualitative discussions with 40 merchants, service providers, and customers. Wherever possible, we have complemented primary findings with secondary research.

We have made every attempt to ensure the sample represents different geographical and demographic locations and parameters. Service provider insights have also been consolidated. However, findings and opinions may differ between the report and individual service providers.

The report is divided into several sections. The introduction and details of the study provide context and rationale for the study. Merchant profiles and current scenarios provide details of the usage patterns and key characteristics of QRIS merchants in the study and their usage patterns and behaviors. The section on increasing QRIS adoption provides detailed findings from the study as well as the implications and insights to service providers and regulatory authorities. Finally, the study findings form the basis of recommendations and opportunities which are listed in the final section.



Study rationale, objective, and target respondents

Details of the study

Key focus



The focus of this study is on the digital financial service usage behavior of <u>small</u> <u>and micro-merchants</u> who belong typically to the lowincome segment of Indonesia's population.

Main objective



The study explores how QRIS as a payment mechanism can be promoted as a <u>low-cost</u> <u>alternative for merchants</u> to conduct safe and convenient transactions by allowing inclusion and active participation in the digital ecosystem.

Research areas



Key <u>research questions</u> were around **awareness levels, willingness to try** QRIS and other digital platforms, capability to use digital platforms, and **digital readiness of merchants**. The research also covered aspects on the **demand from customers** and **support** from supply-side stakeholders in enabling the use of QRIS.

Size of merchants targeted

Criteria	Assets (IDR million)	Characteristics
Micro	< 50 (~USD 3,450)	Usually household, single owner, informal shops
Small	50-500 (~USD 3,450-34,500)	Could have 1-2 employees outside the house but not professionals, mix of informal and formal

Type of merchants targeted

- In line with the research focus, the target category of merchants for the study have been chosen accordingly:
 - Local, neighborhood mom and pop shops
 - Food carts and stalls
 - Small pharmacies
 - Banking agents



The study also gains insights from other stakeholders, including regulatory bodies like BI, service providers and customers. Service providers included both banks as well as non-banks like FinTech and e-money players.



Limitations of the study

The following points provide some context of study limitations, and need to be considered when consuming the content of this study.



Restrictions on travel: Due to restrictions on travel, we conducted qualitative interviews online. While we tried to ensure detailed conversations, all quotes and findings have been presented as is and with as much context as possible to avoid misunderstanding.

Sampling: While every effort has been taken to ensure a representative sample, QRIS users were mainly found in urban areas. Therefore, the major findings from this study represent QRIS users in these areas, with some nuanced findings from other locations.

We have also made efforts to make the sample representative of the entire country by selecting locations across the major island groups. The final selection was made based on the location's population, assuming higher levels of QRIS use. But due to constraints on time and budget, and limited data on merchant presence in these locations, the sampling frame does not represent the merchant population across these locations, but the general population.



Service provider insights: Insights from service providers are based on interviews with representatives of different service providers willing to participate. All thoughts expressed and insights derived are consolidated based on different service providers MSC has spoken to. However, this does not represent every individual service provider in Indonesia.



02

Executive summary

Study rationale

- Bank Indonesia (BI) launched Quick Response Code Indonesian Standard (QRIS) in August 2019, it was mandatorily used by service providers from January 2020 and successfully onboarded more than 12 million QRIS merchants in less than two years.
- QR code payments is an economic and convenient digital payment option, and for many small and micro merchants it is the first step to offering digital payments to their customers. This contributes to the financial inclusion and digitization of merchants. Stakeholders seek more opportunities to increase the adoption of QRIS across the country.
- This study provides insights into the different factors that affect the use of QRIS at the merchant level. It also highlights possible interventions or operational changes and opportunities for service providers and regulators to improve the use of QRIS and experience for merchants and their customers.

Findings from the study

High level of awareness on QRIS as a payment mode

Awareness on QRIS is high particularly in urban areas, but knowledge of MDR is low.

Use might be affected once MDR is charged.

More awareness is needed in tier 2 and 3 cities through public campaigns and market conduct supervision needs to improve to encourage use Merchants do see value in using QRIS

Merchants are able to appreciate the benefits of QRIS and several are able to offer digital payments for the first time with QRIS.

Offers and promotions drive use among merchants and customers.

More use-cases are needed along the value chains as well as better economics for service providers to push QRIS payments, which would ensure its sustained use.

Merchants are capable but need instant support

Merchants are comfortable using smartphones and QRIS, some ask for help from family while using more advanced features.

A trusted network and more personal support will ensure sustained use.

Seamless on-boarding and strong responsive grievance mechanisms are needed to build confidence in the service provider Use-cases and regulatory support required

A major use-case currently is OTC transactions at merchant locations.

Limitations on transaction value limits the use-cases available for QRIS use.

Providers have an opportunity to develop more use-cases for merchants. The merchants can also be sold other useful DFS products based on QRIS use



Current scenario and usage patterns of QRIS





Merchants who use QRIS are mostly either active or occasional users located in urban city centers





The most predominant use-cases for QRIS are OTC transactions to pay merchants at local and neighborhood shops

3



Current use-cases

- P2P transactions at merchant shops, ride-hailing
- Non-face-to-face (TTM) P2P transactions when merchants share QR code
- Payments made on merchant websites
- Payment between merchants at wholesale and wet markets
- Potential considers the current quantum of transactions and what could be possible with a more robust enabling environment. It also considers interest from service providers and their likelihood to support the use of QRIS in transactions that are economically beneficial to them.
- Current popularity rates are the rate of use estimated by the study and depend highly on how convenient a transaction is for customers. Payments at merchant shops using merchant presented mode (MPM) are easy, fast, and economical.



of QRIS

use

the

Potential to increase

With some regulatory support and push from service providers, use-cases that are in the early stages of implementation can potentially increase QRIS usage

2

3

5



Potential use-cases

- Payments made by citizens to the government like taxes and fines
- Services like payments for fees in educational institutions or payment for fuel
- Other electronic points of sale like vending and parking machines
- Payments of employee salaries (*currently not implemented*)
- Transactions involving cash-in and cash-out (CICO) at agent points for interoperable transactions as well (*Pilot till July 2022*)
- Both the transaction amount and wallet balances have restrictions.
 This limits the number of use-cases we can offer using QRIS. Larger wholesale payments cannot be made, although merchants do see value in using QRIS over other payment modes, especially cash, and are willing to migrate to QRIS.
- A FinTech service provider in Jakarta



While service providers could onboard many new merchants, some concerns limit their capacity to offer more use-cases



Service providers can now reach previously unreachable merchants

Service providers can now cater to smaller merchants, especially merchants who lack the capacity to pay for an EDC machine or other infrastructure required previously for digital payments. The onboarding process is easier and quicker for QRIS, making it more convenient for merchants to register.

However, some concerns persist

Upper limit on the transaction size limit possible use-cases

Current limits on the transaction size for e-wallets constrain big-ticket transactions. These transactions could give service providers a higher earning, making QRIS transactions more attractive.

Strategies to increase usage among current merchants

- 1 Enhance the settlement process and provide merchants with fast and smooth settlement
- 2 Invest in ensuring a better customer experience. Starting from onboarding, transaction experience, through better UI and UX to reducing transaction delays and errors
- 3 Upsell other products and features, which serves additional income for service providers

Strategies to onboard new merchants

- Partner with bigger merchants that can provide more attractive promotions and incentives to customers
- 2 Use the introduction of new use-cases like withdrawals at CICO points
- 3 Target bigger merchants for upstream payment needs and wet markets

Service providers speak

BI has increased the limit to IDR 10 million on March 2022. This will allow more usecases. But the cap on balance for the ewallet is IDR 10 million¹. This is a challenge to onboarding bigger merchants in the supply chain who want to use QRIS as their wholesale payment mechanism. The option of e-money ensures accuracy in payment of large sums compared to cash. It can be the first step to digitizing the whole supply chain.



Recommendations and opportunities



Minor improvements to building awareness and the process of onboarding will help ensure a positive experience and confidence among merchants using QRIS

Recommendations Opportunities			
Insights	What kind of change is needed?	What can be done?	
	Spreading aw	areness and correct information	
Merchants do not have much awareness around key information on MDR and transfer limits.	(Operational changes	 Push notifications on the app or IVR calls to remind users of important details like MDR and transfer limits Regular emails from service providers about promotions, incentives, and other details 	
Once MDR is re-introduced, merchants might start transferring the charge to customers.	Policy and regulatory changes	 Public campaigns to ensure customers are well-versed with their rights and grievance resolution mechanisms SupTech solutions for better supervision and other consumer support technology for addressing issues more effectively 	
	Providing se	amless onboarding and support	
Support during onboarding is provided, but relationships with merchants are not sustained, which causes a drop in usage in case of unresolved issues.	Operational changes	 Use the existing ground staff network to build a double-layered system; map the acquired merchants to a specific staff member in the area as first touchpoints Provide a more official channel through WhatsApp as a second touchpoint for support and complaint handling that can be tracked and reported Design a "merchant graduation" path that increases merchant engagement and incentivizes high usage and high performing merchants, including a standardized guideline for onboarding and training of merchants Develop more robust <u>customer service and protection practices</u> 	
Onboarding requirements and processes differ among different players, due to which merchants prefer specific providers over others.	Policy and regulatory changes	 Standardize document requirements and SLA for the registration process 	

QRIS has met the objective of providing customers and merchants an economical payment option; however, some considerations need to be made for service providers

Recommendations		Opportunities
Insights	What kind of change is needed?	What can be done?
	Ensure seam	less process for service providers
Acquirer service providers do not prefer off-us transactions due to delays in settlement and MDR split.	Operational changes	Ensure seamless instant settlement when the acquirer and issuer are different entities to avoid delays and avoid merchants influencing customer choice when making payments.
	l	ncreasing use-cases
Restrictions on transfer limits and wallet balance limit use-cases that can use QRIS. The restrictions also reduce the potential to increase usage and develop service provider interest to push QRIS as a mode of payment.	Operational changes	 Develop more use-cases around QRIS payment (details in the following slides) that wire allow service providers to earn more with economies of scale. Train and incentivize merchants to build awareness around the benefits of QRIS among their customers
	Policy and regulatory changes	Consider revising the transaction limits to allow for larger values of transfer amounts that can accommodate different use-cases for bigger merchants and wholesale payments. Limits can be based on the type or size of merchants.

Opportunities for increasing the use of QRIS beyond OTC sales exist in usecases through digitization of other segments of merchants and users

Recommendations

Opportunities

Service providers have confirmed that QRIS has increased the number of merchants who offer digital payment from 800k to more than 12 million. Therefore we may say that the objective of digitizing a large segment of informal merchants has been met.

A few more use-cases that are in the initial stages of implementation or are being explored, could potentially increase use of QRIS:

Supply chain payments



- Payments between suppliers, wholesalers, and retailers in manufacturing and FMCG businesses.
- 2. Digitizing payments in wet and traditional markets

QR codes are currently being used in India to <u>track</u> <u>the supply chain</u> of fresh produce C2G payments
1. Payment o



1. Payment of taxes and retribution by citizens in citizen centers (Kantor Pelayanan Pajak)



- 1. Transactions between beneficiaries and shopkeepers to receive in-kind G2P benefits
- 2. Cash-out transactions for G2P benefits received in the bank

Other points of sale/payment



- 1. Payments made to taxis, ride-hailing services, and parking services
- 2. Payments for purchasing products from vending machines (<u>Public toilets</u> in China with QR codes)

Access to public transport using QR codes in China

MSC

PayNow QR is used in Singapore for paying taxes through the myTax application <u>Choice-based G2P</u> delivery in Zambia allows beneficiaries to choose provider and channel

As informal merchants can now create a digital footprint, service providers can also consider cross-selling other DFS products that benefit merchants

Recommendations

Opportunities

With QRIS being the first step into digitization for a large majority of small and micro merchants, trusted brands have a tremendous opportunity to cross-sell other products



Credit lines and loans

Merchants using QRIS for the first time create a digital footprint of their transactions.

Alternate credit rating techniques consider various data points to assess customers' credit scores. QRIS transaction records can be used to assess a merchant's creditworthiness or a customers' ability to apply for buy-nowpay-later transactions.

Pay later credit cards by Uni given to lowincome consumers in India based on alternate credit rating techniques GoBiz, GoStore, and similar applications can be used to upsell to merchants.



Merchants are now aware of the advantages of digitization and its opportunities to expand the business and build resilience.

Service providers have the opportunity to cross-sell business applications that help improve merchants' business through sales and profit analytics, bookkeeping, and client relationship building.



Savings products

QRIS transactions settle into the merchants' bank account. Several merchants treat this balance as a piggy bank since it is harder to access compared to wallet balances.

Service providers have an opportunity to cross-sell other savings or insurance products by linking accounts to mutual funds, goal-based saving products, or insurance premium payments.

<u>GoPay and Jago</u> - Registered GoPay users can save in a Jago account and earn 7% interest per annum



Pilot use-cases that show significant potential in Indonesia



QRIS being used to make parking fee payments



QRIS being used to make payments at vending machines



Increasing QRIS adoption and factors that affect adoption Findings from the study





Different factors that affect the use of QRIS payment mode at merchant shops help to understand the potential of QRIS and ways to increase adoption









Awareness -Are they aware?

Awareness of QRIS as a payment mode is high and is driven mostly by service providers' ground staff engagement

Awareness

Willingness

- Awareness of QRIS is high, including among non-QRIS merchants and customers.
- Most QRIS merchants¹ learned about QRIS through the ground staff of their service provider, while almost a third have asked about it from their family or friends who have been using QRIS.
- Younger merchants are also more likely to search for information proactively and are curious to explore when they come across advertisements.

Source of QRIS information (N=480, Multiple choice)



¹ Merchants who have used QRIS for their business

pability

Environment

For 92% of QRIS merchants, information on QRIS is available easily.

- Merchants who faced some issues gathering information about QRIS mention complicated information, no access to complete information, and unavailability of someone to ask for more details as their primary concerns.
- Younger merchants are more aware of QRIS than their older counterparts. The proportion of merchants who have used digital financial services and have registered their business for QRIS is also higher among younger merchants.
 - Socialization to the public to convince them to use QRIS transactions by the government is important. Moreover, if a cash-back promotion is made, it will attract more people's interest to actually try it out.
 - Merchant in a rural area



However, knowledge on key details like merchant discount rate and transaction limits is still missing

Awareness

Willingness

Capability

Environment

- Most QRIS merchants reported that they did not fully understand the cost or merchant discount rate (MDR) component of QRIS. They were not informed about it and did not receive details on its fees and charges during merchant registration or training. Some QRIS merchants know of the concept of MDR, but they are unsure of its exact charge and calculation.
- Older, less educated merchants and those from rural areas also do not know the maximum transaction value and non-face-to-face payment method of QRIS.



I am not familiar with the non face-to-face use of QRIS (QRIS TTM). My customers just scan the code at my *warung* (shop). I prefer that my customers just visit my *warung* so I would not have to deliver the goods to them.

- Female owner of a mom-and-pop shop

Service providers speak

Merchants are quite aware of the fees and charges for different payment modes. They will prefer to use what is economical. Currently, QRIS is the cheapest option due to BI's policy to waive the MDR during the pandemic, so the usage is very high. If that changes, merchants will reconsider the cost versus the benefit they can reap.

¹ Merchant were asked if they were confident that they understood these aspects and were probed further on some details to confirm their knowledge



When supported by service providers, onboarding and registration was smooth and easy, and the major challenge was internet connectivity

Awareness

Willingness

Registration process

✤ 90% of QRIS merchants, particularly those who received assistance from service provider staff, said the process is easy.



Capability

Environment

Challenges in the registration process

Only	33%	of QRIS	merchants
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Received details on fees and charges for QRIS transactions

<20% of QRIS merchants

Received details of incentives and rewards

 Most merchants received information on QRIS payment issues, demonstration of a QRIS transaction, and details on customer support during onboarding.

26% of QRIS merchants faced challenges during registration

Challenges faced by QRIS merchants during registration (N=124)

Internet connection problem Issues and delays for verification Too much information required SP staff provided unclear steps Complicated process of SP No available support

Complicated process in the app



Willingness -Are they willing to try?



Merchants see value in QRIS as a safe and economical payment option to reach more customers

Awareness

Willingness

- The decision to try QRIS for the first time for a majority of merchants is driven by their customers' demands. Merchants also perceive QRIS as safe and convenient alternative to other digital payments, especially during the pandemic.
- ✤ Merchants, particularly those in peri-urban areas, also see the value of QRIS to reach more customers. However, competition and curiosity drive the uptake of QRIS mainly in urban areas alone.

pability

Environment

Customers speak

Customers who request to make payments through QRIS are driven by cashbacks and other promotions. They decide which service provider to use based on ongoing promotions. Customers also find this convenient as they no longer need to top-up their e-wallets as QRIS directly debits from their back account when using a bank application.



The admin fee to pay for a webinar using QRIS was lower compared to other digital channel options, only IDR 1,500 per transaction. Others were over IDR 2,000

- Urban customer paying for a webinar
- QRIS is easy and safe to use. I do not need to worry about loose change or fixed amounts of cash. I consider it safe to use during the pandemic because it means less exchange of physical cash with customers.
 - Female food stall owner in a rural area



Most merchants prefer to use QRIS to receive payments digitally, particularly the merchant presented mode due to its convenience and quick transaction time

Awareness

Willingness

- Almost 70% of merchants prefer to use an app-based QRIS. This is mainly due to safety, convenience, and quick transaction time as the customer only has to scan a code displayed. The system also eliminates room for error like transferring to a wrong number.
- On the other hand, non-QRIS merchants1 prefer to use the appbased P2P transfer as the mode of payment for their registered customers.

Preferred digital mode of payment among all merchants (N=610)



- Female pastry shop owner in an urban area

Capability

Environment

- Almost 90% of QRIS merchants receive payment from their customers through the merchant presented static code (MPM) posted on a physical board or sales machine at their shop.
- Merchants do not prefer non-face-to-face (TTM) as they usually do not have their customers' numbers saved. The customer journey when purchasing products online using TTM is far more complicated and requires more steps when compared to a simple wallet payment.





However, network connectivity issues and settlement delays reduce the use of QRIS



Non-QRIS merchant

Willingness - Are they willing to try?



Non-QRIS merchants express interest in registering if they receive some support and information on the benefits of QRIS

	Willingness	Capability	
60% of non-QRIS merchants interested in becoming	would be a QRIS merchant.)% of them were approached details, but most were no	d by service providers and received some ot pursued again or given support to register.

The major reasons provided by non-QRIS merchants for not signing up are the limited support to register and knowledge gaps on the benefits of using QRIS. Merchants whom friends or acquaintances approach are more likely to onboard the platform as they have some confidence.







A majority of merchants in the study have access to smartphones and use them

		Capability	
99% of merchants had access to a smartphone	Merchants also have reliable internet on the smartphone and use it for various purposes across all major cities in Indonesia	Use of smartphones for persona (N=603, Multiple	•
		Communication (news, WhatsApp)	96%
		Social media	93%
		Entertainment and digital content	91%
A majority of	6% of merchants who are	E-commerce and shopping	58%
merchants are	indifferent or only somewhat	Transport and ride-hailing	52%
쇼국전철 very comfortable using their smartphones.	comfortable using their smartphone get support from	Personal finances and payments	44%
		Digital loans/credit for personal use 2%	
	others at home to conduct more complicated tasks.	Percentage of merchants who use their same	ortphone for these usecases

Frequency of smartphone use for personal finance and payment



34% Use it weekly 39% Use it monthly

6% Use it only once in 2-3 months



¹Personal finance includes payment of bills, P2P transfers, mobile banking

 \bullet More than 70% of the merchants prefer using mobile apps for

connectivity and frequent app crashes, few merchants also

reported the high cost of internet data as an area of concern.

to the faster speed of transaction and convenience.

★ While the major challenges continue to be network

personal finance¹ (including e-wallets and payment apps) due

Merchants also use mobile applications for their business to keep up with changing trends and remain competitive but refrain from using more advanced features and products



- Service providers claimed that in 2016-2017, the number of merchants using non-cash payment modes like EDC for their business was as low as 800k. This number has increased exponentially since QRIS launched. The rise is due to the convenience QRIS offers merchants, particularly the convenience of having to make no additional investments or keep aside cash reserves.
- While the use of applications like GoBiz, for bookkeeping and client management is minimum, many service providers try to cross-sell these products available on their applications to their merchants. The possibility to cross-sell other important products has also been a successful acquisition strategy for the field staff of service providers.
- Merchants expressed that they are not comfortable with digital loans after hearing about bad experiences from others regarding fraud and bad actors, such as illegal P2P lending firms.

¹GoPay and OVO, in this case, are used to make the payment transaction for sales on GoFood, Tokopedia, and other platforms.



Support from service providers, particularly during the initial stages, is key to building confidence in using a payment application and QRIS

	Willingness	apability		
Usage and transactions	 No service provider staff¹ have done check ins² for 60% of merchants since onboarding Service providers have field teams employed to sell several different products. While they are available to answer questions and support merchants, they do not assist in activities that grow the business using QRIS. Only 4% of dormant merchants said they stopped using QRIS due to lack of support. Some service providers provide support by emails and share details about cashbacks, incentives and 			
Grievance resolution	 delivery cost, which helps merchants. 20% of merchants were not aware of any GRM chants While merchants know of various channels, 58% merchants consult service provider staff as they believe they will get more accurate information from them. Most merchants prefer WhatsApp or a call to the service provider staff to get a more immediate response, especially if merchants know the staff 	of 9% 18% 21% 35%	wareness of channels for solution (N=392) Calls to service provider staff WhatsApp Call center None Email App-based	

¹ Service provider staff includes other third-party agents who provide field support to acquire and train merchants on different products and services of the service provider ² Service provider check-in includes physical visits, WhatsApp messages, or calls to merchants.



Ecosystem and demand -Is there an enabling environment?

maofood



The use of digital payments is increasing; merchants and customers are more willing to try it for different use-cases


The pandemic has also pushed many to try low-contact and remote payments as merchants moved a lot of business online as a coping mechanism

Awareness

Willingness

Capability

Environment

The lockdowns had a disproportionately high impact on smaller merchants and their business activities. While government mandates forced most of them in urban and peri-urban centers to shut down, some rural shops could remain open for residents in the area.





- Overall, around 50% of merchants saw a decrease in the use of QRIS during the period even though it was low-contact, due to an overall decrease in customer footfall.
 - Merchants in rural areas had more diverse responses, given more relaxed lockdown restrictions; many merchants in these areas reported no change.







Annexes

Annex A: Study background





The pandemic has accelerated the adoption of digital tools and "going digital" has become a priority for future economic development, especially for MSMEs



Micro and small and medium enterprises (MSMEs) account for around <u>99%</u> of existing business enterprises in Indonesia



They employ more than 97% of the total workforce across the country.



But they generate only around 57% of the GDP in Indonesia.

The major challenge MSMEs face is the <u>lack of connectivity</u>. This excludes them from regional and global value chains, and prevents access to markets, finance, networks, and trained resources.

Using digital technology with an enabling policy environment will help elevate MSMEs through tech interventions:

- ✤ E-commerce platform and apps
- ✤ Digital payments and wallets
- ✤ Social media platform and apps
- ✤ Cloud-based tools and computing
- ✤ Sharing economy platform and apps

Source: Ministry of Finance, Republic of Indonesia, <u>Publication</u> -<u>Ministry of Cooperatives and Small and Medium</u> Enterprises Coordinates Synergy and Collaboration for Cooperatives and SMEs Development Sep, 2021. MSMEs in Indonesia use e-commerce platforms for sales, but other digital interventions are still needed:

- Prior to the onset of the pandemic, only about <u>8 million or 13% of the nation's 64 million MSMEs had digital operations in place</u>. At the end of 2020, the number has increased to <u>10 million or 16% of MSMEs are using online business platforms</u> in their businesses.
- The common digitization effort taken by MSMEs are using e-commerce and social commerce to boost their sales. <u>Online MSMEs can earn 1.1x higher</u> <u>revenue compared to offline</u> with the benefit of expanded sales geography, reduced operation cost, and optimized transaction process.
- In response, the government has launched initiatives to support MSMEs in building their digital presence:
 - **BELA (Belanja Pengadaan)** Intends to include MSMEs in the government's procurement process
 - Collaboration with different private sectors and associations.

This initiative covers support for application development, promotion and sales, supply chain, and capacity building

PaDi (Pasar Digital)

Intends to encourage state-owned enterprises to use their budgets on expenditures with 540,000 MSMEs

Laman UMKM

This initiative consists of an e-catalog portal designed to support MSMEs operating digital businesses



While cash remains the king, digital payments have grown significantly with the rapid growth in the digital economy in Indonesia

Indonesia is the second-largest cash-based economy. Cash still accounts for <u>77%</u> of point of sale purchase. However, the landscape is evolving and digital payments is slowly replacing cash, most significantly in the e-commerce sector. Further growth in digital payments will be met, largely, through digitization of MSMEs supported by initiatives of BI and its Payment Systems Blueprint 2025.

Value of transaction in USD billion

Debit card

■ Oct-20 ■ Oct-21

+5%

Transaction details for some common methods

of digital payments in the month of October,

+55%

2020 and 2021 from BI.

167

Electronic

banking

259

Payments landscape in Indonesia



QRIS transactions would form a part of the digital wallet payment method.

GSMA <u>estimated</u> that the expected total annual rate of growth for digital payments transactions (CAGR) would be 16.5% between 2020-2024.

300

250

200

150

100

50

0

Source: "e-Commerce payment trends: Indonesia", JP Morgan, 2019 Note: Electronic banking includes phone banking, SMS/mobile banking, internet banking

Indonesia Payment Systems Blueprint 2025

Bank Indonesia (BI) issued the <u>Indonesia</u> <u>Payment Systems Blueprint 2025</u> to overcome all challenges in the digital era. The following initiatives are envisioned to strengthen the retail payment system:

Fast payment development (<u>BI-FAST</u>)

V <u>QRIS</u>

+54%

2

E-wallet

- Integrated payment interface
- <u>GPN</u> (National payment gateway) Enhancement

The details of the blueprint are available in <u>here</u>.



The payment ecosystem is evolving to provide better services to previously underserved or unserved

Initially used in <u>automotive industries</u>, the QR code reached the finance world as a contactless payment method. The rapid adoption of digital wallets, low-cost form factor, and ease of use led to the widespread adoption of QR codes.

Trends from other countries:



China: A recent <u>study</u> from China UnionPay finds that 85% of the country's consumers have used QR code-enabled payments in the year 2020. Recently, the two major players <u>WeChat and UnionPay</u> have agreed to set their QR codes to become interoperable.



Singapore: QR code-enabled contactless payments <u>grew</u> by a staggering 272% year on year during the first 10 months of 2020 as consumers preferred the contactless payment option over cash.



India: Close to <u>40 million</u> small and informal merchants in India use QR codes, both for UPI and Bharat QR codes. The popularity of QR codes soared after payment and FinTech companies started using it in conjunction with <u>Unified Payment Interface</u>, an instant payment system. P2P payments and scan-and-pay at merchant outlets increased manifold, with almost <u>50%</u> increase in smaller cities and towns.

A study by Juniper Research estimates that total number of QR code payment users will exceed 2.2 billion in 2025, up from 1.5 billion in 2020; equating to 29% of all mobile phone users across the world in 2025¹.

The study also predicts that much of this growth will be within emerging markets, where weak card infrastructure creates a strong opportunity.

¹Source: <u>QR Code payments: Key opportunities, regional analysis & market forecasts 2021-2025</u>, Juniper Research



has different key drivers in adopting, the primary purposes are still the same. QR code payments in most developing markets intend to reduce cash usage, enhance financial inclusion, and provide a low-cost and non-cash option in merchant payments.

Even though every market

QRIS offers the ~63 million micro, small, and medium enterprises (MSMEs) in Indonesia, an interoperable and economic option to make and receive digital payments.



QR code payments in Indonesia have grown significantly and is a vital component of the retail digital payment system

BI has included QR code payment in the Payment Systems Blueprint for 2025 to fast-track digital access for 91.3 million unbanked segments and 62.9 million MSMEs

The journey of QR code payments in Indonesia

2017 - 2018

Service providers launch QR code payment

- September, 2017, Gojek piloted QR code payments for merchants
- January, 2018, Gojek stopped the pilot due to a license issue.
- By mid-2018, BI granted the license to Gojek and other providers.

2019 - 2020

BI launches QRIS to unify and standardize QR code payments

- In 2019, BI formed a QR code payment working group with the Indonesian Payment System Association (ASPI).
- January, 2020, BI launched Quick Response Indonesian Standard (QRIS), necessitating interoperability and standardizing merchant discount rates (MDRs).
- BI mandates <u>WeChat and Alipay</u>, as foreign players, to hold hands with the local banks in QRIS implementation.
- As QRIS took off during the pandemic, BI removed the MDR as a COVID policy response
- BI stated that more than <u>5.8 million merchants</u> adopted QRIS by the end of 2020, primarily microenterprises.

2021 and next

Use of QRIS increases as millions of merchants are enrolled

- The MDR's relaxation continues till December, 2021, and BI and ASPI deploy a non-face-to-face QRIS to cope with the pandemic.
- In early November, 2021, <u>12</u> <u>million merchants</u> started using QRIS.
- August 2021, BI and Bank of Thailand (BOT) piloted <u>a cross-</u> <u>border QR payment linkage</u>. BI also explored the opportunity for potential collaborations with <u>other</u> <u>Asian countries and the Middle</u> <u>East</u>.



Service providers, both banks and FinTechs, have captured the urban market of restaurants and small shops, but there is potential for payments in other sectors



Annex B: Sample details of the study and merchant profiles





The study covered 610 merchants across the six island groups of Indonesia

Merchants include those who accept digital payments from customers for products or services. Demographic and other features have been used to classify them further as follows:

Merchants interviewed

Ouantitative



Completed between September and October, 2021 across major island groups

Area s	tatuc			30-39
Alea S	latus	4		Older mer
)			40-49
Urban	-	Peri-urban -	Rural -	>50
Main c center	-	Areas and suburbs that are adjacent	Areas in <i>kelurahan</i>	Gender
areas i <i>kelura</i> classifi	hans ¹	to city centers outside of the main commercial	classified as rural	
urban	%	areas 7%	7%	52%

¹ Administrative division equal to a village

Age		
Age	% of merchants	
Younger merchants		
18-29	48%	
30-39	26%	
Older merchants		
40-49	19%	
>50	7%	
Gender		
\square		



48%

Merchant type

ORIS merchant - Onboarded as an 79% official merchant using QRIS to or 480 accept payments from customers merchants Non- ORIS merchant - Merchant 21% using DFS to accept payments but or 130 not using QRIS merchants

Merchants included a variety of informal micromerchants, of whom 93% comprised neighborhood food stalls and mom-and-pop shops. This is the primary occupation for 95% of the merchants.

Monthly revenue¹ (IDR million) (N=610)



¹Monthly revenue appears lower due to the recency bias of merchants of the reduced business in the past two years during the pandemic

Cash was the preferred mode of payment; however, merchants also used other modes of DFS payments

Percentage of merchants who used various DFS payment modes (N=610, multiple choice)

Electronic money server-based, through the specific POS machine/EDC machine (Gopay, OVO, Dana, LinkAja)

Electronic money card-based (e-Money, BRIZZI, Flash, BNITap, etc.)

App-based QR code transfer, including QRIS (Gopay, OVO, Dana, LinkAja, etc.)

App-based P2P transfer for registered users (Gopay, OVO, Dana, LinkAja, etc.)

Card-based transactions (credit and debit card)

Bank transfer through internet banking, mobile banking, or SMS banking





Digital payments still accounted for less than 15% of transactions for most merchants

For a majority of merchants use of digital payments still largely accounts for less than 30% of their overall sales transactions



Non-QRIS merchants either have negligible levels of DFS or higher levels of DFS sales in the sample

Distribution of DFS sales percentage among QRIS and non-QRIS merchants



While merchants may display their QRIS code, a majority of merchants had only a handful of customers who opted for QRIS as the first choice of payment



Total transactions a day for merchants

The number of transactions depends on location as well as size of the merchant.

The number of transactions has been extrapolated from the average revenue and approximate transaction size at merchant locations.





IDR 50- IDR 100k The typical amount for QRIS transactions quoted by a majority of merchants





CARLTON



Analyzing the different personas of merchants in the study resulted in three key persona types that can be targeted to increase the usage of QRIS

The easy-catch category of merchants is well-versed with digital payments. They have trust issues when faced with payment failures or fraud due to a lack of training and awareness. They require a small nudge to become full-fledged users of QRIS.

Drop-outs are those who have previously used digital payments and switched back to cash owing to an external disruption or unfavorable experience and unwilling to try QRIS or register for it.

Merchants categorized as highhanging fruit are ill-equipped to carry out transactions on digital platforms due to their lack of belief and comfort with digital payments. Converting this category is challenging.



Go-getters are digitally ready to carry out financial transactions and are literate. They believe digital payments are revolutionary and see long-term benefits. They were willing to try QRIS. High-quality after-sales merchant service is crucial to retain this segment.

> Aspirers are those who use digital payment modes including QRIS but use cash owing to external constraints, such as infrastructure and low customer demand

Receptive hobblers are challenged by low literacy levels, lack of digital infrastructure, and lukewarm customer demand. Nudging these merchants is easy with extensive training and marketing activities from digital payment platforms



Go-getters - Dian

Dian is a young man who makes a living for himself, his parents are the primary earners and he supports them only when necessary. While his family stays in the rural area, he works in different urban and peri-urban areas. Currently he works for a small food stall as an employee but the owner depends extensively on him.

Dian prefers digital payments and using applications for various things. He usually learns about new things from his friends and community and uses applications that customers prefer and have in common.



I just follow the promotions provided by providers for merchants to improve sales and attract customers. I also conduct some promotions on Instagram to customers.





Go-getters - Willing to try it all and influence use in others, but will just as easily stop if they do not see value and benefit to themselves



- Young male, unmarried and has worked a number of small jobs before
- Mainly earns for himself but supports family back home when needed
- Urban, high percentage of digital transactions

DFS behavior:

Has multiple applications and products

Quick to try new products but has strong opinions and judgments, especially with bad experiences of high fees

Financial behavior:

Searches for the best deals and promos on products

Risk-taker and early adopter, has tried various products and services, including online credit and loans

Makes independent decisions on the finances of the shop and has made some mistakes

Needs:

Easy-to-understand business development and strategy support

More use-cases and opportunities to expand the use of DFS and QRIS









What can be done to support Dian?

- Provide incentives to encourage more usage and ensure QRIS remains an economic solution
- ✤ Develop more use-cases that can support a growing business
- Ensure robust grievance mechanisms, through preferred channels like WhatsApp to ensure no issue goes unattended
- ➤ Cross-sell other business-stimulating products and services



Easy catch - Sanny Devi

Sanny Devi is a newly married women living in Jakarta city. She has her own smartphone and uses it mainly for entertainment. She is also comfortable using it for other reasons and uses the banking application regularly for transfers.

Her husband supported her in setting up an account on GrabFood for the shop while he set up a GoFood account. She appreciates the convenience of DFS and gets support from others for more advanced applications and use-cases.



It is easy to use digital payments although you do not get the income in cash. Nowadays, many people use cashless payments. Many customers check with me or show me the notification to confirm if I received payment or not. I find this easy because the income will go directly to the account, and I do not have to travel to the ATM at night to deposit savings.





Easy catch - A persona type that is willing to experiment and spread awareness among customers with the right support and use-cases that meet their needs



Sanny Dewi

• Young females, newly married and working for the first time

- Peri-urban, both cash and digital transactions
- Supports household income

DFS behavior:

Willing to try different products and services based on customer requirements

Still prefer cash from customers and does not insist on DFS

Financial behavior:

Easily influenced by choices and comments of friends and family as well as bad experiences

Consults with husband on business-related issues but makes the final decision herself

Aware of online credit and loans but not comfortable to try

Needs:

Training and sustainable relationships that support her experiments and are trustworthy

More relevant products and use-cases like a saving method to more interest and allow easy accessibility to cash when needed









What can be done to support Sanny Devi?

- Ensure awareness on the details of QRIS and regulatory action on misconduct, so that it does not lead to a bad experience.
- Provide use-cases that are suited to her needs and requirements.
- Ensure more organized and consistent support that eventually helps her independently use DFS more confidently
- Train her on the benefits and get her support in spreading awareness and influencing her customers.



Receptive hobblers - Farhan

Farhan is a middle-aged man with a wife and children. He has been running his small mom-and-pop shop since 2006 with his wife's help. He also sells a small menu of freshly cooked snacks.

His children are still dependent. His wife supports his with running the shop and also helps him with the digital applications and smartphone.



My goal is to keep up with the development and competition, so I do not get left behind, and also to prevent me from being "gaptek" (clueless with technology). But I still think digital and cash can only be 50:50, because there is an issue if all is pushed to digital. A wallet can give me the money only after 24 hours. However, I need the money earlier to buy the ingredients in the wet market for the next day. If the system can improve transfer speed, for example, at 5 pm every day, I will have no problems in going all digital.





Receptive hobbles - Can be converted to dedicated users in tier 2 and 3 cities with the right ecosystem changes and hands-on support when needed



Farhan

Older male, with family and working in the family-owned business for several years

- Primary breadwinner of the family
- Rural, mainly cash transactions, limited demand

DFS behavior:

Uses one application that he is familiar with consistently and on a need basis

Uses only key features and does not experiment with others by himself

Financial behavior:

Discusses with family to make big financial decisions including saving

Still prefers paper-based bookkeeping and records and maintain informal contracts with wholesalers

Will only use a certain product and service after understanding all the pros and cons

Needs:

A more hands-on channel of support from service providers and regular visits

Support in building demand from customers to sustain usage and building the digital ecosystem to allow end-to-end digital payments









What can be done to support Farhan?

- Handholding support to use different products and regular check-ins to ensure sustained use
- ✤ Ensure easy UI/UX for basic services
- Ecosystem development in peri-urban and rural areas to build more customer awareness and demand
- ➤ Building other relevant use-cases that complement his business







Annex D: Additional slides

Detailed research framework



1. MDR: Merchant Discount Rate

2. PSP: Payment System Service (PSP)



Research sample distribution



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The Indonesia Payment Systems Blueprint 2025



Source: https://www.bi.go.id/en/publikasi/kajian/Documents/Indonesia-Payment-Systems-Blueprint-2025.pdf



Digital payment transaction data

Mode of payment	Value of transaction in 2020 (billion)	Value of transaction in 2021 (billion)	Number of users as on Oct 2021
Electronic banking ¹	USD 167 IDR 2.418.052	USD 259 IDR 3.746.319	Not available
Debit cards	USD 42 IDR 607.251	USD 44 IDR 642.829	214 million
E-wallet	USD 1 IDR 18.793	USD 2 IDR 29.231	544 million



Market captured and potential sectors for QRIS adoption

Assuming conservative rates of conversion to calculate the potential merchants from the total addressable market



Source: State Ministry for Cooperatives, Small and Medium Enterprises. (2015) <u>https://apfcanada-msme.ca/sites/default/files/2020</u> 07/Micro%20and%20Small%20Businesses%20in%20Indonesia%E2%80%99s%20Digital%20Economy_0.pdf



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Details on DFS payments among merchants





Digital readiness framework

	Basic	Intermediate	Advanced
Digital readiness			
Overall comfort	Low	Some level of confidence	Highly confident
Personal use	Not currently using but plans to use basic applications for communication	Uses applications for basic financial transactions and social media	Uses several apps and digital tools for entertainment, social media, finance and other
Business use	Not currently using but plans to use basic applications for receiving payments from customers	Uses few key applications for running the business and payment	Uses several apps for payments to different stakeholders, management of business and marketing
Financial and business readiness			
Level of trust of service provider	Low	Medium	High
Complexity of transaction	Just received payments with minimum interaction with the application	Uses application for multiple use-cases - send, receive, check balance	Uses multiple applications, including digital credit
Transaction independence	Require face-to-face support	Assisted for some complex transactions even though calls/online support	Self service for all transactions
Digital tools for business	Mainly paper-based business operations	Mix of paper-based and digital recordkeeping	Digitalized business operations
Enablers			
Type of device	Feature phone	Own smartphone	Smartphone or other device (laptop/tab), or both
Device ownership	Shared		Owned
Customer demand	Low	Med	High
Access to internet - connectivity	Low	Med	High
Cost of internet	Low	Med	High
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An evaluation of the overall digital readiness of merchants in the study shows that the majority of merchants fall into the intermediate category

 Awareness
 Willingness
 Capability
 Environment

The highlighted boxes show the current level of most merchants1 in the study. With some support from trusted service providers and the government, merchants will build confidence adopt more advanced DFS.

	Basic	Intermediate	Advanced
Digital readiness			
Overall comfort	Low	Medium	High
Personal use	Not currently using but plans to use basic applications for communication	Uses applications for basic financial transactions and social media	Uses several apps and digital tools for entertainment, SM, finance and others
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Enablers			
Type of device	Feature phone	Own smartphone	Smartphone or other device (laptop/tab), or both
Device ownership	Shared		Owned
Customer demand	Low	Medium	High
Access to internet - connectivity	Low	Medium	High
Cost of internet	Low	Medium	High
¹ Nuances based on location and gender are bro	ught out in the following slides for some relevant variables.		



Strengthening customer service and protection aspect will ensure more sustained use of QRIS and digital platforms

Recommendations

Opportunities

The <u>UN Principles</u> for responsible digital payment emphasize customer protection as the primary focus for service providers to engage with clients who are using digital payments

1 Treatusers 1 foldiv Concernent of the state of the st	Mexico and Peru	<u>Tienda Pago</u> , a lending FinTech, uses a call center to support and proactively reached out to small merchants to ensure that the clients feel comfortable using their digital platform
4 Safeguard client data	Bangladesh	<u>Hishab</u> and Bank Asia Limited launch the "Voice User Interface" that non-tech savvy microentrepreneurs can use as a means of banking without going to the bank or agent outlets
	The Philippines	The <u>Bangko Sentral ng Pilipinas</u> (BSP) implemented supervisory technology (SupTech) to monitor customer complaints that appear on social media. OJK is piloting a similar initiative in Indonesia for consumer support technology
7 Provide user choice through interoperability	India	<u>CGAP</u> tests a tool that can help monitor market risks, support the collective voice of consumers, and identify posts that fit a pre- defined list of consumer risks in digital consumer credit
		Mobile Vaani used an interactive voice response (IVR) technology that works on basic phones to collect customers' testimonials, especially in the absence of internet services.

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