# NO. 299

APRIL 2024

# **ADB BRIEFS**

#### **KEY POINTS**

- The Government of India's leadership in promoting digital payments and the balanced approach of regulators helped the country become a global leader in the adoption of digital payments.
- Various initiatives, including the Digital India program and the BharatNet project, have significantly helped India's internet penetration and smartphone adoption.
- The Unified Payments Interface (UPI) has significantly impacted the digital payment landscape in India by promoting financial inclusion.
- UPI helped reduce the use of cash and checks in India and the cost of financial transactions, increase the adoption of digital payments by merchants and consumers, and improve the efficiency of government services.
- UPI has also supported the growth of e-commerce and other digital businesses.
  Policies have supported the growth of fintech companies.
- Developing interoperable digital payment systems is vital to addressing various macroeconomic challenges, especially financial inclusion. Today, more than 330 banks and 25 apps use UPI, including all third-party payment providers.

ISBN 978-92-9270-698-2 (print) ISBN 978-92-9270-699-9 (PDF) ISSN 2071-7202 (print) ISSN 2218-2675 (PDF) Publication Stock No. BRF240255-2 DOI: http://dx.doi.org/10.22617/BRF240255-2 Leveraging Lessons Learned from India's Unified Payments Interface for Digital Transformation in Asia and the Pacific

#### Jazira Asanova

Principal Operations Specialist South Asia Department Asian Development Bank (ADB)

Yonghwi Kwon Financial Sector Specialist (Digital Payment) Finance Sector Group, ADB

#### **Pratyush** Project Officer India Resident Mission, ADB

John Owens Senior Digital Finance Advisor Digital Finance Advisory Services

#### **INTRODUCTION**

As digitalization rapidly transforms the financial landscape, lessons from India's Unified Payments Interface (UPI) offer valuable insights for the Asian Development Bank (ADB) developing member countries (DMCs). Many countries trying to adopt digital payments face multiple barriers. These include a lack of access to digital payments due to limited payment infrastructure, low smartphone penetration rates, and expensive or poor internet coverage. In addition, lack of clarity or poorly defined regulations often make it difficult for digital payment providers to operate. Limited awareness of payment options among consumers and small and medium-sized enterprises, a general lack of trust in these options, and cost issues increase barriers to consumer and business adoption of digital payments.

India has tackled these barriers and challenges in unique ways but centered around the launch of the UPI. UPI has had a significant impact on the digital payments landscape in India, making it easier and faster for people to send and receive money. UPI has also helped promote financial inclusion by making digital payments accessible to people of all socioeconomic backgrounds.

India's approaches, especially UPI, are highlighted in this brief, which aims to inform DMC's medium-term post-pandemic recovery plans and foster digital payment innovation across DMCs.

In this publication, "\$" refers to United States dollars and "₹" refers to Indian rupees.



#### BACKGROUND

Like many countries, India faced several challenges and barriers in adopting digital financial services. India launched the National Electronic Funds Transfer system in 1998 to better support payment infrastructure, enabling real-time electronic fund transfer between bank accounts. This was followed by the launch of the Real Time Gross Settlement system in 2004, which enabled high-value electronic fund transfer between bank accounts instantly; and the Immediate Payment Service in 2010, which further expanded the fund transfer by enabling immediate electronic fund transfer between bank accounts and mobile wallets. The Aadhaar program was launched in 2010 by the Unique Identification Authority of India, a statutory authority under the Ministry of Electronics and Information Technology. Aadhaar is a 12-digit unique identification number issued to all residents in India based on their demographic and biometric information. The program was launched to provide a unique and verifiable identity to all residents in India, regardless of their socioeconomic status. This was intended to help reduce fraud and corruption, improve efficiency in the delivery of government services, and promote financial inclusion.

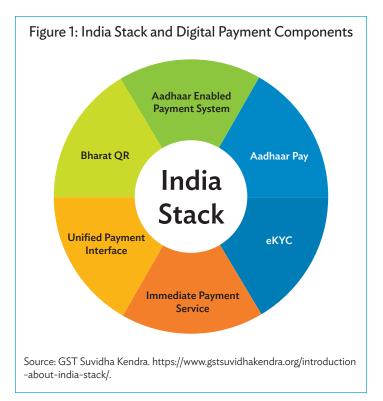
In 2012, India launched the Aadhaar Payment Bridge System, which enabled financial transactions to be linked to Aadhaar, the national biometric identity database. Aadhaar Payment Bridge System played a significant role in promoting access to digital payments and financial inclusion in India. By providing all residents with a unique and verifiable identity, Aadhaar made it easier for people to open bank accounts and access other financial services. This has been incredibly beneficial for low-income and marginalized groups traditionally excluded from the formal financial system. Prior to Aadhaar, many did not have proper identification and were unable to fulfill the Know Your Customer standards for financial institutions.

The Aadhaar-enabled Direct Benefit Transfer scheme has helped reduce corruption and ensure that government subsidies are delivered directly to the intended beneficiaries.

India Stack is the country's digital public infrastructure and the UPI functions as one of the components of India Stack and its layers (Figure 1).<sup>1</sup>

#### **UNIFIED PAYMENTS INTERFACE**

Launched in April 2016, the UPI is a real-time payment system developed by the National Payments Corporation of India (NPCI). It facilitates interbank transactions through a mobile platform. UPI allows users to transfer money between bank accounts and make payments using a single identifier like a mobile number or a virtual payment address without needing to enter or send bank account details. It combines various banking features, seamless fund



routing, and merchant payments all into one platform. UPI has since become India's most popular digital payment system.

One of the key factors in the success of UPI is the consortium ownership structure of NPCI, which is made up of banks and the government. This public-private consortium helps NPCI play a critical role in getting stakeholder support and instilling trust in the system in the following ways:

**Representation of all stakeholders.** The ownership of NPCI is spread across a wide range of banks and financial institutions, representing major financial players of India's economy. This ensures that all stakeholders' interests are considered when NPCI makes decisions.

**Transparency and accountability.** NPCI is a not-for-profit public limited company incorporated under Section 25 of the Companies Act. This structure allows NPCI to operate with the flexibility and efficiency of a corporate entity while fulfilling its not-for-profit objectives of developing and managing the payment system in India. This ensures transparency and accountability in NPCI's operations.

**Regulatory oversight.** NPCI is regulated by the Reserve Bank of India (RBI). This provides further assurance to stakeholders that NPCI is operating in a sound and responsible manner.

<sup>&</sup>lt;sup>1</sup> India Stack is a set of digital infrastructure components that collectively aims to empower India's digital economy and facilitate secure and efficient delivery of public and private services to its citizens.

#### Leveraging Lessons Learned from India's Unified Payments Interface for Digital Transformation in Asia and the Pacific

NPCI also has several initiatives in place to promote trust and confidence in the system, which include the following:

**Security.** NPCI has implemented robust security and risk management frameworks to protect its systems and data. These frameworks are regularly reviewed and updated to keep pace with the evolving cyber threat landscape.

**Consumer protection.** NPCI has a customer grievance redressal mechanism in place to address any complaints or concerns. This mechanism is fair, transparent, and timely.

**Consumer education.** NPCI conducts regular awareness and education initiatives to inform stakeholders about its products and services and the importance of cybersecurity and fraud prevention.

These initiatives help strengthen NPCI's reputation as a trusted and reliable organization, which is essential for its success in getting stakeholder support and in playing a critical role in India's payments ecosystem.

UPI is an instant payment system where transactions are processed and settled instantly. UPI is also interoperable and can transfer money between accounts held at different banks. Payment service providers and fintechs can also use UPI in collaboration with banks.<sup>2</sup>

UPI can facilitate both peer-to-peer (P2P) and peer-to-merchant (P2M) payments. P2P payments are transfers between two bank accounts. P2M payments are used to make payments to merchants, such as at stores, restaurants, and online. Growth

in P2P and P2M payments has been rapid, and this has led to versatility of UPI. UPI has helped in:

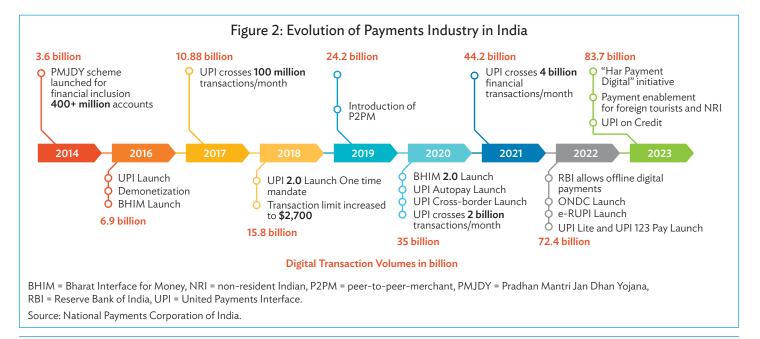
- reducing the use of cash and checks in India;
- increasing the adoption of digital payments by merchants and consumers;
- promoting financial inclusion by making digital payments accessible to people of all socioeconomic backgrounds, thereby increasing formalization in the economy;
- reducing the cost of financial transactions; and
- improving the efficiency of government services.

UPI has also played a key role in supporting the growth of India's e-commerce and other digital businesses and lending products. The BharatQR scheme created a common QR (Quick Response) code standard for all payment service providers and merchants accepting digital payments to further support the expansion of digital payments, including UPI. With the launch of UPI in 2016, the payments landscape in India has grown rapidly and has paved the way to innovation in the payments industry (Figure 2).

#### HIGH-LEVEL GOVERNMENT LEADERSHIP AND DIGITAL ROAD MAP

The Government of India has played a key role in promoting digital payments in the country through its various initiatives. Two of the most important initiatives are the Digital India program and the BharatNet project.

The Digital India program, launched in 2015 and led by the Prime Minister to transform India into a digitally empowered



<sup>2</sup> Interoperable payment systems are those that can communicate and exchange data with each other, allowing users to make payments across different systems seamlessly (See ADB. 2022. *Payment Systems Interoperability in Asia.* Manila).

#### ADB BRIEFS NO. 299

society, coincided with the RBI digital payment policies.<sup>3</sup> The Digital India program includes several initiatives to improve internet connectivity, increase smartphone adoption, develop e-governance infrastructure, and promote digital literacy.

The BharatNet project is a government initiative established by the Ministry of Communications and Information Technology to provide broadband internet connectivity to all *gram panchayats* (village councils) in India.<sup>4</sup> The project was launched in 2012 and is expected to be completed by 2025.

Reliance Jio, a telecommunication network launched in 2016, disrupted India's telecom market. Its partnerships with smartphone manufacturers led to the availability of affordable 4G-enabled devices bundled with attractive data plans, making smartphones and internet accessible to a wider population.

These initiatives have helped to significantly increase internet penetration and smartphone adoption in India. The government has also launched several financial literacy programsto educate citizens about digital payments and how to use them safely. As a result, more and more residents in India can access and use digital payment platforms. From April 2022 to May 2023, there were more than 133 billion digital payment transactions in India.<sup>5</sup> This growth is a significant accomplishment that was achieved after UPI was introduced. Finally, the government's vision of India reaching the milestone of a \$5-trillion economy by 2025 and its efforts to promote an overall credit culture have been critical to the growth of a digital ecosystem.<sup>6</sup>

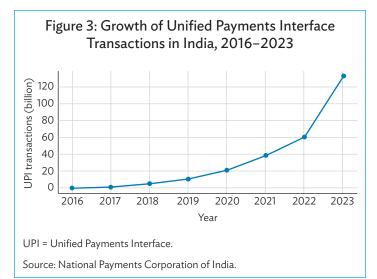
#### TECHNICAL ASPECTS OF UNIFIED PAYMENTS INTERFACE

Some of the key technical aspects of the UPI journey include standardized digital payment protocols, security frameworks, and key infrastructure developments.

**Standardized digital payment protocols.** UPI is based on an open-source protocol, an immediate payment system developed by NPCI.

UPI uses the Unified Payments Interface Protocol (UPI-P) that provides additional features and functionality, such as

- interoperability, where UPI-P allows users to transfer money between bank accounts held at different banks; and
- instant settlement, where UPI-P transactions are settled instantly, meaning that the money is immediately transferred from the sender's account to the recipient's account.



The Government of India's leadership helped the country to become a global leader in digital payments adoption. The Digital India program and the BharatNet project have played a key role in this achievement.

**Security frameworks.** UPI uses several security features to protect user data and transactions. These features include the following:

- **End-to-end encryption.** All UPI transactions are encrypted from end-to-end, meaning that only the sender and recipient can see the transaction details.
- **Two-factor authentication.** UPI-P requires users to authenticate transactions using two factors, such as a PIN and a fingerprint.
- Fraud detection and prevention. UPI uses various fraud detection and prevention algorithms to identify and block fraudulent transactions.
- **Customer grievance and redress mechanisms.** NPCI interacts with banks and other financial institutions to address any customer grievances.

**Key infrastructure developments.** Several key infrastructure developments have helped ensure UPI's interoperability, versatility, and safety. These developments include the following:

<sup>&</sup>lt;sup>3</sup> Digital India. https://digitalindia.gov.in/.

<sup>&</sup>lt;sup>4</sup> Universal Obligation Fund. Bharatnet Project. https://usof.gov.in/en/bharatnet-project.

<sup>&</sup>lt;sup>5</sup> Bharat Interface for Money—Unified Payments Interface. https://digipay.gov.in/dashboard/default.aspx.

<sup>&</sup>lt;sup>6</sup> Government of India. 2019. Economic Survey 2018–2019 (Volume 1). Delhi. Since inception in 2016, the Insolvency and Bankruptcy Code (IBC) has improved the credit culture in India.

#### Leveraging Lessons Learned from India's Unified Payments Interface for Digital Transformation in Asia and the Pacific

- **QR-based infrastructures.** QR codes are used to initiate UPI payments. QR codes can be displayed at merchant locations, such as stores, restaurants, and online. Customers can scan QR codes using their UPI app to make payments.
- **Layers.** UPI has a layered architecture, which means that it is built on top of existing payment systems and infrastructure. This makes UPI more scalable and flexible.
- **Data rails.** UPI uses several data rails to process and settle transactions. Data rails are the underlying infrastructure that enables digital payments to be processed and settled. They are networks of computers and systems connecting banks, merchants, and other payment processors. In simpler terms, data rails are the pipes that allow money to flow from one bank account to another. When one makes a UPI payment, one's transaction is routed to the recipient's bank account through one of these data rails.

The technical aspects of UPI have played a vital role in its success as a versatile and scalable digital payment platform.

## **REGULATORY ENVIRONMENT**

The government and regulators in India have taken a number of regulatory steps to support the growth of digital payments.

One of the most important steps has been to foster a conducive regulatory environment that balances innovation and risk management. This involves creating a regulatory framework that is flexible enough to allow for innovation while ensuring that the financial system is safe and sound. Apart from setting up Aadhaar and UPI, some of these measures also include the introduction of payment banks, the establishment of RuPay card network, e-Know Your Customer and mobile wallet regulations, and QR code payment standards.

Another important step has been to promote digital payment interoperability. This means that users should be able to make

payments using any digital payment platform, regardless of which bank or payment service provider they use. The government and regulators have taken several steps to promote interoperability on the regulatory side, including the launch of the BharatQR program.<sup>7</sup> The BharatQR program has helped standardize QR code payments for merchants of all sizes. It was especially important for small and microenterprises that previously lacked the ability of card-based point-of-sale systems. In addition, RBI has issued regulations that require digital payment providers to interoperate.<sup>8</sup>

The regulators have also made it easier for digital payment providers to obtain licenses and operate in India (Box). This has helped increase the competition in the digital payments market and has led to the development of new and innovative digital payment solutions.

Finally, the government has put in place regulatory sandboxes to test new digital payment solutions and to incentivize fintech startups. Regulatory sandboxes are safe spaces where fintech startups can test their new products and services without being subject to all of the normal regulatory requirements. This has helped accelerate the development and adoption of new digital payment solutions in India.

## SECTOR-SPECIFIC SOLUTIONS

As noted, there are various success factors of UPI in the digital payments sector. Additional success factors include the following:

- Use case-based approach. UPI was designed with various use cases in mind, such as P2P payments and P2M payments. This focus on end-user problem solving has helped make UPI easy to use and relevant to a wide range of users.
- Focus on a customer-centric user experience. UPI was designed with a focus on user experience. The UPI app is simple and easy to use, even for people with limited technical literacy.

#### Box: Facilitating Digital Payment Providers and Fintech Companies

The Government of India has implemented several measures to streamline the process for digital payment providers to obtain licenses and operate in the country. These measures include the following:

 Simplified regulatory framework: The Reserve Bank of India (RBI), which regulates payment systems in India, has simplified the regulatory framework to encourage more players to enter the digital payments space. This includes easing norms for obtaining licenses for operating payment systems.

Source: Reserve Bank of India.

3. Reduced entry barriers: The government and RBI have worked to reduce entry barriers for fintech companies. This includes lowering capital requirements and simplifying compliance processes for startups in the digital payment sector.

<sup>2.</sup> Introduction of payment aggregator guidelines: The RBI introduced guidelines for payment aggregators and payment gateways, providing clarity on operational, financial, and technical requirements. This step helped new entrants understand the compliance requirements more clearly.

<sup>&</sup>lt;sup>7</sup> NPCI. BharatQR.

<sup>&</sup>lt;sup>8</sup> PwC. 2021. The RBI's Monetary Policy on Digital Payments.

• **Collaboration.** UPI was developed in collaboration with a wide range of stakeholders, including banks, payment service providers, and the government. This collaboration has helped ensure that UPI meets the needs of all stakeholders.

### ESSENCE OF USE CASE-BASED APPROACH

A use case-based approach is a way of designing and developing products and services by focusing on specific use cases. A use case is a description of how a user will interact with a product or service to achieve a specific goal.

The essence of a use case-based approach is to put the user at the center of the design process. This means that designers and developers focus on understanding the needs of the users and on developing solutions that meet those needs.

A use case-based approach can be utilized to develop products and services for any sector. However, it is particularly important in sectors like agriculture, where there is a wide range of users with different needs.

Some examples of how a use case-based approach can be used to develop digital solutions for farmers include the following:

- Use case 1: A farmer wants to check the weather forecast for their farm.
- Use case 2: A farmer wants to buy seeds and fertilizers online.
- Use case 3: A farmer wants to get a loan from a bank.

By focusing on these specific use cases, designers and developers can develop digital solutions that are easy to use and relevant to the needs of farmers.

# GOVERNMENT'S ROLE IN DEMONSTRATING VALUE TO THE PRIVATE SECTOR

The Government of India demonstrated the value of digital payments to the private sector by adopting digital payment solutions for government transactions, including social benefits, taxes, and public procurement. This was key to stimulating private sector participation in the digital payment ecosystem.

In particular, the Bharat Interface for Money is a mobile payment app that was developed by NPCI based on UPI and was launched in December 2016. It is used extensively by the government for payment transactions such as for taxes; government subsidies and benefits to beneficiaries, including direct benefit transfers; utilities (often managed by government agencies); and government fees and charges (e.g., passports and various licenses).

Bharat Interface for Money is a simple and secure app that allows users to send and receive money, pay bills, and shop online using their mobile phones. It is compatible with all major banks in India and is available in 20 languages.

# DEMAND-SIDE AND SUPPLY-SIDE CONSIDERATIONS

Demand-side and supply-side considerations were an essential part of India's digital payment road map that greatly contributed to digital payment adoption in India.

A key part of the demand side was a focus on a number of behavioral factors and digital financial literacy initiatives. On the supply side, support for ecosystem development has also played a role in the success of UPI.

Behavioral factors that have contributed to the success of UPI include increased adoption of smartphones in India, growing awareness of digital payments among residents in India, and the convenience and ease of use of UPI.

Digital financial literacy initiatives have also played a role in the success of UPI. The Government of India and digital payment providers launched a number of initiatives to educate consumers about the benefits of digital payments and how to use them safely. For example, the government launched the Rashtriya Swachhata Abhiyan (National Cleanliness Mission) campaign, which includes a component on digital payments. Digital payment providers have also launched their own awareness campaigns, such as Paytm's "India Wants to Pay Digitally" and "Paytm Karo" campaign and Google Pay's "Tez Hai" campaign.

The government and other stakeholders have also supported the development of the UPI ecosystem. This support has included providing financial incentives to merchants and consumers to adopt UPI in order to promote UPI usage. As noted earlier, the government's launch of the BharatQR app has helped small merchants to sign up for UPI payments. Regarding cost barriers, the government has worked extensively with digital payment providers and fintechs to make digital payments more affordable for businesses of all sizes. For instance, the government has waived merchant discount rate charges on UPI transactions for merchants with annual turnover of up to ₹500 million (\$6 million as of 2 January 2024). Digital payment providers have also introduced a variety of zero-fee payment options.

Overall, the success of UPI can be attributed to a combination of factors (including the technical features discussed above), behavioral factors, digital financial literacy initiatives, conducive regulatory environment, and the Government of India's leadership and vision for the digital ecosystem development of the economy.

#### **RESULTS AND IMPACT**

UPI has had a significant impact on India's financial sector and economy as a whole.

**Increased financial inclusion.** UPI has made it easier and more affordable for people to access financial services, particularly in rural and underserved areas. The number of bank accounts in India increased from 400 million in 2014 to more than 1.4 billion in 2023.

### Leveraging Lessons Learned from India's Unified Payments Interface for Digital Transformation in Asia and the Pacific

**Reduced gender disparities in financial access and usage.** UPI has helped reduce gender disparities in financial access and usage.<sup>9</sup>

**Increased economic activity.** UPI has helped increase economic activity by making it easier and faster for people to make payments. This has benefited businesses of all sizes, as well as consumers.

**Reduced corruption and illicit fund transfers.** UPI has helped reduce corruption and illicit fund transfers by making it more difficult to make cash transactions.

**Improved government efficiency.** UPI has helped improve government efficiency by making it easier and faster to transfer government benefits and subsidies.

UPI also played a key role in India's response to the coronavirus disease (COVID-19) pandemic. UPI was used to distribute government benefits to millions of people who were affected by the pandemic. For instance, the government used UPI to distribute the Pradhan Mantri Jan Dhan Yojana cash transfer scheme to eligible beneficiaries. UPI also helped reduce the risk of COVID-19 transmission by promoting contactless payments. UPI payments can be made using a smartphone, without the need to exchange cash.

#### REPLICATION OF INDIA'S EXPERIENCES IN TACKLING EXISTING CHALLENGES

Given that many countries across Asia and the Pacific are increasingly focusing on digital transformation, there is a potential for strengthening and broadening cross-border cooperation among DMCs on digital payment systems and building on India's experience and success with the UPI. There are several challenges to the adoption and use of digital payments in Asia and the Pacific, specifically in South Asia. These challenges include the following:

- Lack of access to financial services. A large proportion of the population in South Asia does not have access to formal financial services. This makes it difficult for them to use digital payments.
- Low smartphone penetration. Smartphone penetration in South Asia is relatively low compared to other regions of the world. This makes it difficult for people to use digital payment apps.
- Lack of awareness and education. In several South Asia countries, a sizeable percentage of the population is unaware of digital payments or how to use them.
- **Limited merchant acceptance.** Not all merchants in South Asia accept digital payments. This makes it difficult for people to choose digital payments as their primary tools to purchase goods and services.

**Lack of interoperability.** Digital payment systems in South Asia are often not interoperable, meaning that users cannot make payments across different systems. This makes it difficult for people to move from cash to digital payments.

India's UPI journey can play a significant role in addressing the challenges to digital payment adoption in South Asia. As noted in this brief, India has made significant progress in promoting digital payments through UPI.

Multilateral developments banks like ADB are well poised to help share India's experiences and best practices with countries in Asia and the Pacific to help them develop and implement their own digital payment systems.

### OPPORTUNITIES FOR REGIONAL COOPERATION

India can also expand its work with other countries in the region to promote cross-border interoperability and harmonize digital payment regulations. Some specific opportunities to help address the challenges to digital payment adoption in South Asia are as follows:

- Promoting cross-border interoperability. India can expand its work with other countries in the region to promote interoperability between digital payment systems. This would make it easier for people to make cross-border payments and remittances and would boost trade, value chain finance, tourism, and economic growth. For example, UPI's overseas acceptance has been increasing in various countries like Sri Lanka, Singapore, France, and United Arab Emirates.
- Share best practices. India can share its experiences and best practices and expand its technical assistance efforts to promote digital payments across other countries in the region. For example, India could share its experiences in developing and implementing the UPI system, as well as its experiences in promoting financial inclusion.
- Harmonize regulations. India can work with other countries in the region to harmonize their digital payment regulations. This would create a more conducive environment for the development and adoption of digital payments. For example, India could work with South Asia Subregional Economic Cooperation and Association of Southeast Asian Nations to help their member countries in developing a common set of digital payment regulations for the region.
- **Promote financial inclusion.** India can work with other countries in Asia and the Pacific in promoting financial inclusion. This would make it easier for people to access and use digital payments. For example, India could share

The impact of digital financial services like UPI on reducing gender disparities in financial access in India is significant. Government initiatives like basic savings bank deposit accounts that were largely facilitated by UPI helped play a key role in improving financial access for women. Combined with the launch of Pradhan Mantri Jan Dhan Yojana in 2014, these initiatives marked a significant step in improving financial inclusion, with about 55% of the new account holders being women. These initiatives saw a rise in bank account ownership among women, from 43% in 2014 to 77% in 2017, thereby reducing the gender gap in financial inclusion from 19.8% to 6% during the same period. These developments suggest that digital financial services enabled by UPI, combined with government initiatives, have contributed to reducing gender disparities in financial access and usage in India.

its experiences in using digital payments to distribute government benefits to poor and marginalized people.

#### CONCLUSION

Leveraging India's UPI experience, ADB DMCs have the opportunity to embark on a transformative journey toward digitalization. High-level government leadership, robust technical infrastructure, enabling regulations, and sector-specific solutions are key drivers for success. The government's active participation in digital payments can catalyze private sector involvement. Regional cooperation within South Asia holds immense potential for cross-border digital transactions.

UPI has achieved remarkable success in promoting digital payments and financial inclusion. The Government of India's leadership, combined with the development of a standardized and interoperable payment system, has enabled UPI to become India's most popular digital payment system.

The success of UPI offers valuable lessons for other Asian countries seeking to promote digital payments and financial inclusion.

Some key takeaways include

- the importance of government leadership and support in creating an enabling environment for digital payments;
- the need for a standardized and interoperable payment system to enable seamless transactions across different banks and payment providers;
- the importance of educating consumers and merchants about the benefits and security of digital payments; and
- the need to invest in digital infrastructure, such as broadband internet and smartphones, to enable wider adoption of digital payments.

#### About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members— 49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

ADB Briefs are based on papers or notes prepared by ADB staff and their resource persons. The series is designed to provide concise, nontechnical accounts of policy issues of topical interest, with a view to facilitating informed debate. The Department of Communications and Knowledge Management administers the series.

www.adb.org/publications/series/adb-briefs

ping memberof their use. The mention of specific companies or products of manufacturersntees, grants,does not imply that they are endorsed or recommended by ADB in preferenceto others of a similar nature that are not mentioned. By making any designationof or reference to a particular territory or geographic area in this document,and theirADB does not intend to make any judgments as to the legal or other statusof any territory or area.

Asian Development Bank 6 ADB Avenue, Mandaluyong City 1550 Metro Manila, Philippines www.adb.org



Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO)

© 2024 ADB. The CC license does not apply to non-ADB copyright materials in this publication. https://www.adb.org/terms-use#openaccess http://www.adb.org/publications/corrigenda pubsmarketing@adb.org

By leveraging the lessons learned from UPI, other countries in Asia and the Pacific can accelerate their digital transformation and achieve the goal of financial inclusion for all.

In the future, India's continued commitment to developing digital public goods and digital public infrastructure will be crucial in catering to the changing demands of consumers and merchants. Equally important will be the emphasis on maintaining the security and privacy of digital payment transactions. The most significant challenge, however, lies in bridging the digital divide. It is imperative to guarantee that digital payment options are accessible to everyone, irrespective of their financial status or geographical location, to ensure inclusive financial growth in the region.

#### REFERENCES

- Government of India. 2021. *Rise of a New Era in Digital Payments*. New Delhi.
- International Monetary Fund. 2023. Digital Payments and Financial Inclusion: A Global Perspective. *IMF Staff Discussion Note.* No. SDN/23/078. Washington, DC: International Monetary Fund.
- MicroSave. 2022. How Digital Payments Drive Financial Inclusion in India. White Paper. London: MicroSave.
- World Economic Forum. 2022. Accelerating Digital Payments in Latin America and the Caribbean. Geneva.

The views expressed in this publication are those of the authors and do not

necessarily reflect the views and policies of ADB or its Board of Governors

or the governments they represent. ADB does not guarantee the accuracy

of the data included here and accepts no responsibility for any consequence