

A study on comparative analysis of digital payment mobile applications during COVID-19 in India

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ABSTRACT:

Popular mobile payments services in India are overlaid on Unified Payments Interface, a banking industry-sponsored protocol that lets people link their bank accounts with their phone numbers through payment apps. India processed the highest number of real-time transactions in 2019, according to our review of instant payments in five large economies. But the country's real-time transactions per capita of 10 in 2019 are the lowest in the group. Consumer apps provided by Google and Walmart-owned PhonePe have tightened their grip on UPI payments, but Alibaba-backed Paytm made greater progress in building a bank-like platform. Growing losses make Paytm and PhonePe dependent on investor support. Their publicly traded rivals, Google and Amazon, have deep pockets and can subsidize losses. The industry is bracing for greater competition with the entry of Facebook's WhatsApp. Fintechs have already gained control over payment relationships. As banks are expected to reduce their exposure to credit cards and personal loans, fintechs could double down on their financial services bets.

KEYWORDS :

Mobile payments; consumer apps; greater competition .

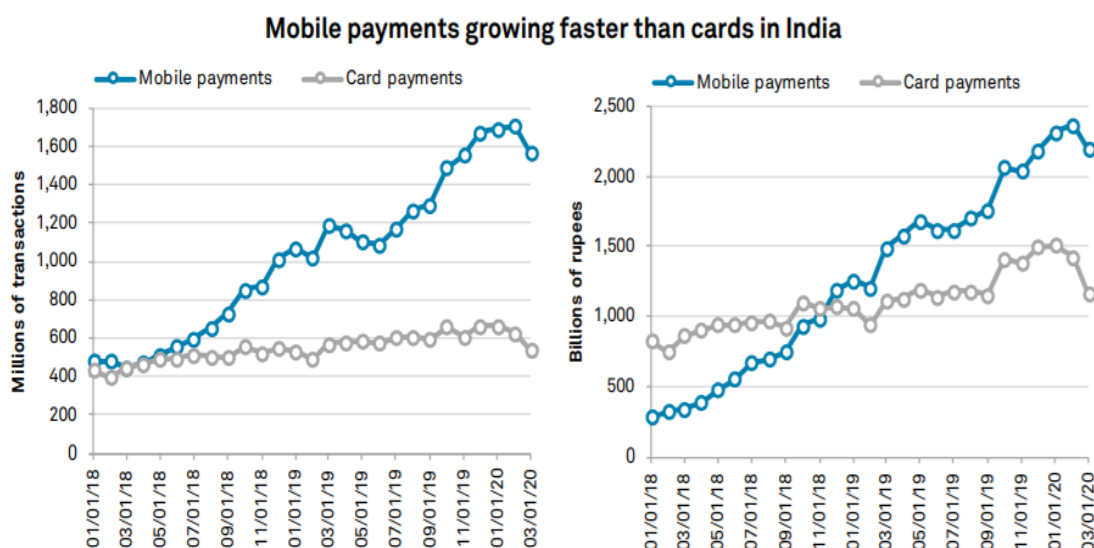
INTRODUCTION:

Cashless payments, especially mobile payments, got their initial major boost following a government decision to withdraw 500-rupee and 1,000-rupee notes from circulation in November 2016. The temporary currency shortage in the aftermath of demonetization nudged the public toward cashless payment options. Even as cash came back into the system in the following years, people continued to use mobile and card payments. 3

2020 India Mobile Payments Market Report spglobal.com/marketintelligence In a sign that demand for cash has been slowing in more recent times, ATM withdrawals for the first time came in lower than card and mobile payments based on value in 2019. And for each ATM withdrawal, Indians made more than two transactions using either cards or mobile phones.

MOBILE PAYMENTS:

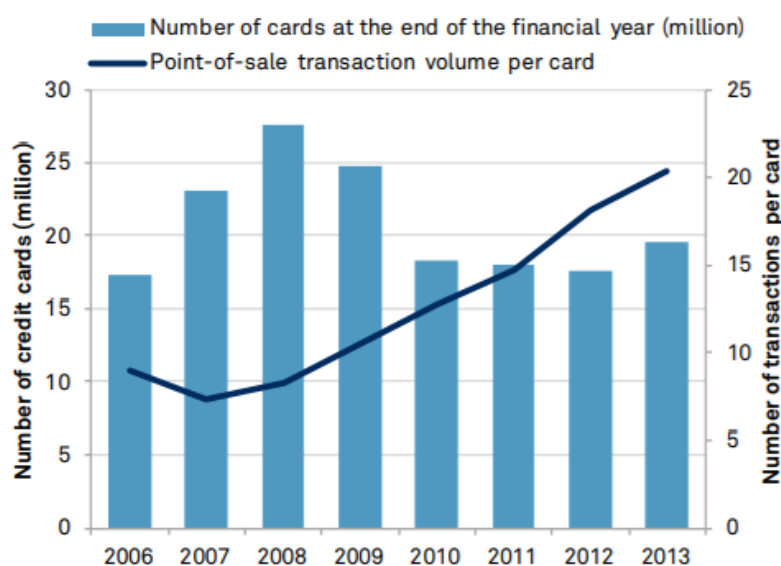
Mobile payments competing with cards Payments handled by mobile devices are soaring in India, driven by the popularity of bank accounts as an in-app payment method. Unlike Apple Pay or other mobile wallets that allow customers to make electronic transactions using a linked debit or credit card, popular payment apps in India promote an alternative to cards. Mobile payments initiated by payment apps comprising account-to-account transfers and payments made from stored-value accounts rose 163% to \$287 billion in 2019. By comparison, point-of-sale transactions completed using debit and credit cards, including online and in apps, rose 24% to \$204 billion. While a large number of transactions handled by payment apps include peer-to-peer transactions, mobile phone account recharges and utility bills, mobile payments are increasingly becoming a popular payment choice for retail transactions at the point of sale and online.



For cashless payments in India, there are plenty of person-to-merchant transactions to chase. Total retail expenditure online and offline at the point of sale exceeded \$806 billion in 2019, according to 451 Research, which is part of S&P Global Market Intelligence. Much of the growth potential exists in the form of offline transactions, with in-store sales accounting for more than 96% of total retail sales in 2019. We estimate that cards and instant interbank transfers facilitated by mobile payment apps represented only 21% of \$781 billion in in-store transactions in 2019 as cash remains the primary payment method for the majority of merchant payments.

Coronavirus crisis to boost mobile payments High growth rates in cashless payments seen in recent years are, however, unlikely to repeat amid an economic slowdown due to the novel coronavirus pandemic. But we expect mobile payments to be more resilient and gain a bigger lead over card payments. 4 2020 India Mobile Payments Market Report spglobal.com/market intelligence As forecasts of a global recession abound, the Indian economy is expected to suffer from the pandemic and nationwide lockdown. S&P Global Ratings in late May slashed its gross domestic product growth forecast for the fiscal year ending in March 2021, to a contraction of 5.0% from an earlier growth projection of 1.8%. A decline in private consumption expenditure could have some adverse impact on cashless payments this year.

Indian banks shrunk credit cards following 2008 financial crisis, but usage frequency rose steadily
Periods represent financial years



If history is any guide, credit card transactions could be at the highest risk among retail payments. Between fiscal 2008 and fiscal 2010, credit card issuers slashed about one-third of accounts, closing 10 million credit cards on a net basis. Although credit card transactions rebounded in fiscal 2011 due to greater frequency in usage, banks seemed reluctant to issue new credit cards through fiscal 2014 and have since nearly tripled the number of accounts to 55.3 million at the end of December 2019. Debit card issuance, however, remained strong in the years following the financial crisis and got a further push from a government-driven financial inclusion program launched in 2014 under which banks onboarded millions of low income individuals and issued 291 million debit cards as of May 20, 2020.

While the share of debit cards in India's point-of-sale and online expenditure gradually rose over the years, cash withdrawals at ATMs remain the bigger use case for debit cardholders. Despite accounting for only 6% of total cards outstanding, credit cards currently represent about 44% of total POS and online transaction value. A potential slowdown in credit card issuance could therefore further widen the divergence between card and mobile payments. The removal of merchant discount rates on card and mobile payment transactions handled by banking consortium National Payments Corp. of India and the requirement for large businesses to offer those cashless payment options to customers, effective Jan. 1, will likely further boost the popularity of cashless payments.

POPULAR MOBILE PAYMENT SERVICES:

The plumbing behind mobile payments Popular mobile payments services in India are overlaid on Unified Payments Interface, a banking industry-sponsored protocol that allows people to link their bank accounts with their phone numbers through apps provided by payments service providers and to make instant fund transfers between bank accounts. UPI processed nearly 11 billion transactions in 2019, making India a rare large market where consumers increasingly use account-to-account transfers to send money to other individuals and pay for goods and services.

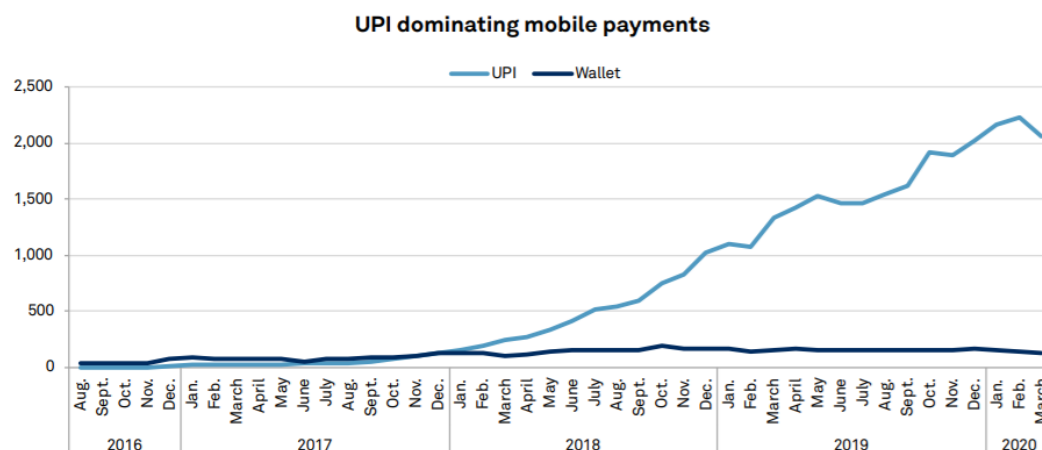
Based on a monthly rate of \$31 billion in February, UPI payments are already clocking more than \$373 billion in annualized payment value in 2020. India's mobile payment users typically bypass card networks and have little need to top up closed-loop electronic wallets. The UPI scheme owes its swift rise in part to its openness to nonbank participation. It

allows nonbanks to build primary interfaces for people to initiate transactions directly from their bank accounts. While nonbanks do not have direct access to the UPI back-end system and must team up with sponsor banks, they can control payment relationships with customers. UPI lends itself to payments in stores and online, supports push and pull transactions, and enables payments instantly and around the clock. It powers multiple use cases, including the ability to access a user's bank account balance, and interoperates with other payment systems.

National Payments Corp. of India, the operator of the UPI network, has also built a centralized payment system that brings billers of all types and payment aggregators under its umbrella. By working with licensed entities that provide access to the Bharat Bill Payment System platform, payment apps such as Google Pay in India allow their customers to access and pay their telecom, gas, electricity and insurance bills.

Wallets becoming obsolete :

The earliest mobile payment apps like Paytm began by offering stored-value accounts that require users to load funds into their wallets before they can transfer money to other registered users or purchase goods and services. The launch of the UPI infrastructure in 2016 and enhanced regulation for prepaid instrument operators have led to a slowdown in the growth of transactions using stored-value wallets. Users of one digital wallet cannot transact with users of another wallet and do not earn interest on money kept in these accounts. But UPI enables account-to-account transfers, and customers get to keep the money in their bank accounts where it can earn interest. Costs related to more stringent know-your-customer compliance requirements led wallet operators to either shut down or shift focus to UPI. As mobile payment users are shifting away from wallets and toward UPI, banks are not in danger of losing access to low-cost retail deposits. UPI payments are account-to-account transfers, and money remains in bank deposits.



Comparison of select large mobile payment companies

Company name (dba)	Parent	Payments volume
One 97 Communications Ltd. (Paytm) ¹	NA*	NA
Google India Digital Services Pvt. Ltd. (Google Pay)	Google	\$110 billion in annualized transaction value as of September 2019
PhonePe Pvt. Ltd.	Walmart	\$180 billion in annualized transaction value as of January 2020
Amazon Pay (India) Pvt Ltd.	Amazon	NA
WhatsApp Inc.	Facebook	WhatsApp offers payments to limited users and will gradually scale up the UPI feature across its userbase.

Payment apps turning into everyday apps

Consumer-facing payment providers tethered to UPI, in theory, can target the entire banked population without incurring any onboarding costs related to the know-your-customer process. With the ability to provide a menu of use cases powered by UPI and interoperate with other retail payment systems, UPI apps offer a standardized set of payment features. UPI-enabled payment apps allow users to request money from others, make QR code payments, check bank account balances and recharge prepaid mobile accounts. Users can pay electricity, landline, broadband, gas and other bills. Google, PhonePe, Paytm and Amazon Pay are seeking to become an integral part of customers' daily lives by extending mobile payments to taxi-hailing, shopping and other cases of personal consumption. Payment app users can buy electronic goods, groceries and clothing; order food; and book hotel rooms and bus and airline tickets. Customers can access instant credit, buy insurance policies and invest in gold and mutual funds through the apps. Paytm, PhonePe and Amazon Pay offer a variety of payment methods, including cards and stored-value wallets. Google Pay plans to introduce a tokenized cards feature to support debit and credit card payments in India.

Payment apps turning into super apps

	In-app features	Paytm	PhonePe	Google Pay	Amazon Pay in Amazon.in app
Funding methods	Bank account using UPI	•	•	•	•
	Stored value wallet	•	•		•
	Debit, credit card	•	•	• ¹	•
Payment features	Send money	•	•	•	•
	Request money	•	•	•	•
	QR code payments	•	•	•	•
Bill payments	Recharge prepaid mobile phone plan	•	•	•	•
	Pay utility bills	•	•	•	•
	Pay credit card bills, insurance premiums and loan EMIs	•	•	•	
E-commerce, travel	Purchase groceries/merchandise	•	•		•
	Make flight, train, bus or hotel bookings	•	•	•	•
	Book Uber/Ola car rides		•		•
Financial services	Buy gold	•	•	•	•
	Point-of-sale credit	•	•	• ²	•
	Invest in mutual funds	•	•		
	Buy insurance	•	•		•
Other	Chat with contacts		•	•	
	Check account balance	•	•	•	•

CONCLUSION

UPI to propel data-driven banking In the wake of the COVID-19 crisis, banks are scaling down their exposure to unsecured lending, including credit cards and personal loans. As traditional financial institutions have become risk-averse, popular payment apps will have an opportunity to play a mainstream role in providing loans and insurance. Payment fintechs are already tailoring their offerings by anticipating consumer needs. PhonePe and Paytm are providing in-app COVID-19-related insurance policies that cover hospitalization and other expenses, and promoting gold and mutual fund investments. Amazon Pay has widened the use cases for its deferred payment option to allow customers to buy essentials and make bill payments.

Payment fintechs' ability to make greater inroads into lending could be limited in the near term as lenders might be reluctant to underwrite loans. However, when risk-taking comes back into the system, payment fintechs will become the natural partners to disburse loans digitally as UPI apps remain the largest financial distribution platforms to acquire customers with little or no credit history. Millions of transactions occurring through UPI apps generate troves of data about users' spending behavior and patterns to build profiles of customers and their lending needs. Information about users' utility bill payments and digital shopping could augment lenders' underwriting models to assess the creditworthiness of potential customers.

UPI apps could also facilitate new use cases supported by the account aggregator framework that allows licensed nonbanks to enable consent-based sharing of personal financial data. Authorized nonbanks acting as account aggregators can serve individuals and small businesses by bringing together and providing a consolidated view of financial data from various sources such as loan accounts, deposits, credit cards and investment accounts. Customers seeking better financial products can also use account aggregators to pass on their financial information to banks, insurers and fintechs. Instead of spending top dollar on customer acquisition, account aggregators might partner with payment fintechs to tap into their customer base and share data through UPI apps. Popular payment fintechs themselves could acquire account aggregator licenses to build new use cases and support their own financial services bets.

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