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# Foreword

The mobile wallet industry has been on a rapid growth trajectory as India moves to a less cash-dependent state. The value and volume of mobile wallet transactions more than doubled in the last year alone and as such the industry is leading the charge to making India a cashless economy. Increased adoption of smartphones and mobile data packages has been one of largest contributors to this growth and as the penetration of the technology increases and mobile data costs come down, the industry is primed for further growth. The Mobile Wallet market has also benefited from a favorable regulatory environment, with policies of the government promoting alternative modes of payment to the traditional cash transaction. The growth in the industry has been further spurred on by demonetization as prepaid payment instruments (PPIs) went from 10% to 22% of total digital transactions in the months following the policy announcement.



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Through this report, we hope to provide a baseline understanding of the industry and its dynamics to the reader. We highlight the competitive nature of the market and shed some light on its predicted future trajectory and the challenges that the industry must overcome in order to continue its growth momentum.

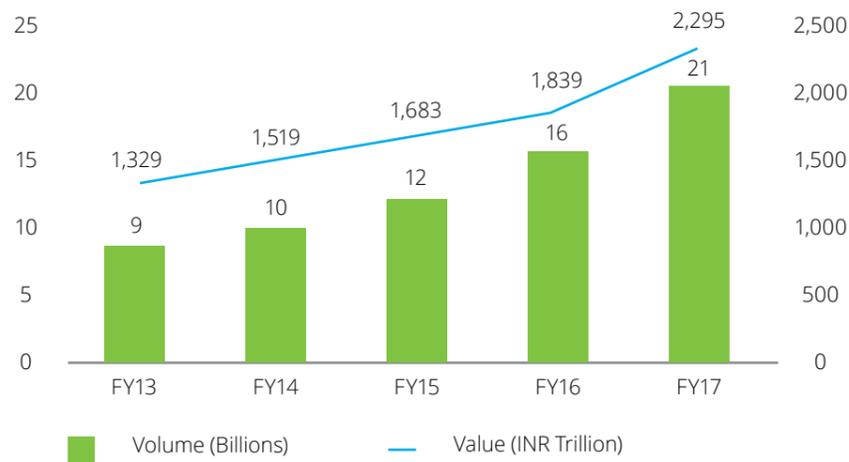


# Overview of the digital payments industry

The Indian economy has traditionally been dominated by cash. However, the increased adoption of smart phones together with a favorable regulatory environment are pushing the economy to a less cash-dependent state, and promoting the usage of digital payments. Demonetization of INR 500 and INR 1,000 currency notes, which accounted for over 80% of the bills in circulation, and the subsequent policy measures taken by the Government of India (GOI) and the Reserve

Bank of India (RBI) have provided further impetus to digital payments. Some key actions including expansion of the digital payments infrastructure at merchant establishments, expansion into rural areas, relaxation in the PPI norms, incentivization of digital payments at fuel pumps, toll plazas, insurance portals etc. and launch of the Bharat QR codes, among others, have helped further the adoption of the technology.

Figure 1: Digital payment transactions FY13-FY17



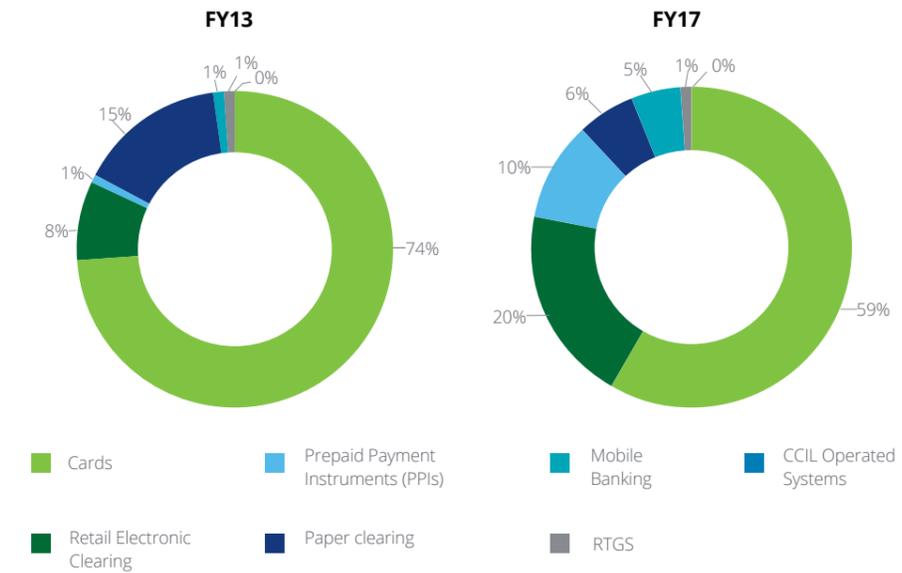
Source: Reserve Bank of India data; Deloitte Analysis

Since FY13, the volume of digital payments transactions has grown at c.19% annually while the value has increased at an annual rate of 12% in the same time period. The digital payments market is dominated by card transactions (debit and credit) both in terms of value and volume. As seen in the chart below, in FY17, card transactions accounted for c. 60% of the total digital transactions volume. While this proportion has declined since FY13, due to the increase in share of other payment modes, the overall number of cards (debit and credit) in circulation has actually increased. The number of debit cards in circulation has increased from 553 million in FY15 to 867 million in April 2017. The number

of credit cards also increased from 21 to 31 million in that same time period. The volume of card transactions has grown at an annual CAGR of 14% between FY13 and FY17. The fastest growing segment of digital payments however, is Prepaid Payment Instruments (PPIs), which has grown at a CAGR of 97% in the same time period to now account for 10% of the total digital payments volume. Mobile-wallet is the largest category within PPIs, but the segment also includes prepaid cards (including gift cards) as well as other paper vouchers.

Figure 2: Volume share of various digital payment modes

Transaction value by mode (% share of total)



Source: Reserve Bank of India data; Deloitte Analysis



# Overview of the Mobile Wallet Market in India

The mobile wallet industry has been on a strong growth trajectory in the past five years. Between FY13 & FY17, transaction volume and value saw a phenomenal CAGR c.120%, both having more than doubled between FY16 and FY17 itself. There are a number of tailwinds pushing the industry along its growth trajectory, which include increased technology adoption, overall growth of the e-commerce industry and rising need for convenience among consumers.

**01. Increased technology adoption:**

Mobile phone subscriptions in India have crossed the 1 billion mark in 2016. Of these, an estimated 371 million users subscribe to mobile internet. As the number of affordable smartphones entering the market increased and tariffs on data plans continued to decrease, the user base for mobile wallets also expanded drastically in the last five years.

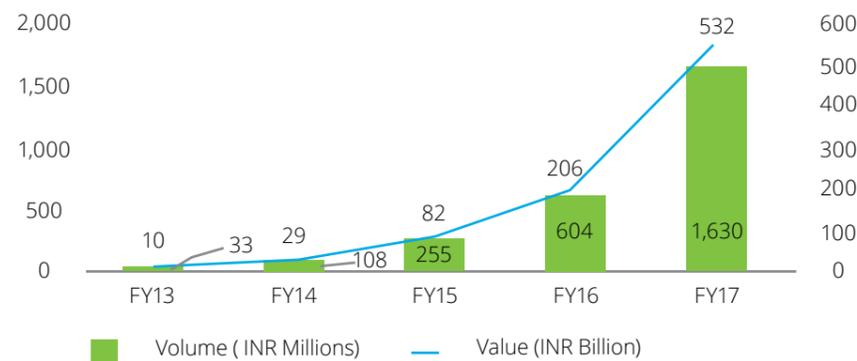
**02. E-Commerce growth:**

The Indian e-Commerce industry has seen remarkable growth to have reached c. USD 38 billion by 2016. With the preference to shop online, adoption of mobile wallets, which provide an alternative for cash, and card transactions has also increased. A number of online merchants have also been providing incentives to consumers for using mobile wallets as their payment mode. For example, Flipkart gives a 10-20% discount on orders paid through mobile wallets.

**03. Consumer need for convenience:**

Consumer need for convenience can be seen across a number of industries, including food, and the mobile wallet industry is benefiting from that trend. Ease of usage, especially with money transfer and bill payment services are a big draw for the younger user base.

**Figure 3: Mobile wallet transactions FY13-FY17**



Source: Reserve Bank of India data; Deloitte Analysis

The mobile wallet market in India can be divided into four distinct types depending upon factors such as the party that can operate the wallet, limits on transaction

amount, and the purpose of wallet. The four types of wallets prevalent in the Indian market are summarized in the table below:

**Figure 4: Types of mobile wallets in India**

PPI Type	Key features	Examples
<b>Open</b>	<ul style="list-style-type: none"> <li>Operated only by banks</li> <li>Allows cash withdrawals and funds transfers in addition to POS usage</li> <li>Max amount that can be stores is INR 1,00,000</li> </ul>	Vodafone m-pesa
<b>Semi-Open</b>	<ul style="list-style-type: none"> <li>Operated only by banks</li> <li>Allows usage with merchants who have a contract with the bank</li> <li>Max amount that can be stores is INR 1,00,000</li> </ul>	Axis Bank gift card
<b>Closed</b>	<ul style="list-style-type: none"> <li>Operated only by banks, NBFCs and other entities</li> <li>Does not allow cash withdrawal; certain amount is locked with the merchant</li> <li>Max amount that can be stores is INR 10,000</li> </ul>	Flipkart Wallet, Metro Card
<b>Semi-Closed</b>	<ul style="list-style-type: none"> <li>Operated by Banks, NBFCs and other entities</li> <li>Does not allow cash withdrawal; allows usage at selected merchants; some allow direct transfer to another wallet for usage</li> <li>Max amount that can be stores is INR 10,000 (without KYC) and INR 50,000 (with KYC)</li> </ul>	PayTM, Oxigen, MobiKwik

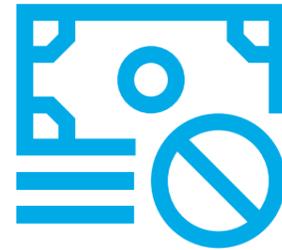
Source: Secondary research; Deloitte Analysis

Despite now accounting for 10% of the overall transaction volume in India, mobile wallets form less than 1% of the transaction value. Transactions using mobile wallet have smaller ticket sizes due to the nature of their usage (at smaller outlets/ terminals especially for transport i.e. cab services, autos etc.). Average ticket size for a mobile wallet transaction in FY 17 was INR 327 versus INR 2,506 for cards. Mobile wallet transactions comprise mainly of money transfers and recharge & bill

payments. Money transfers include those between the wallet and the bank, as well as those between two wallets directly. In FY17, money transfer and bill payment together accounted for c. 69% of the total mobile wallet market. The remaining 31% includes online shopping for clothes, electronics, food etc. and reservations for hotels, entertainment and transport. Mobile wallets can also be used for offline transactions at retail locations via tie-ups with the retail merchants.



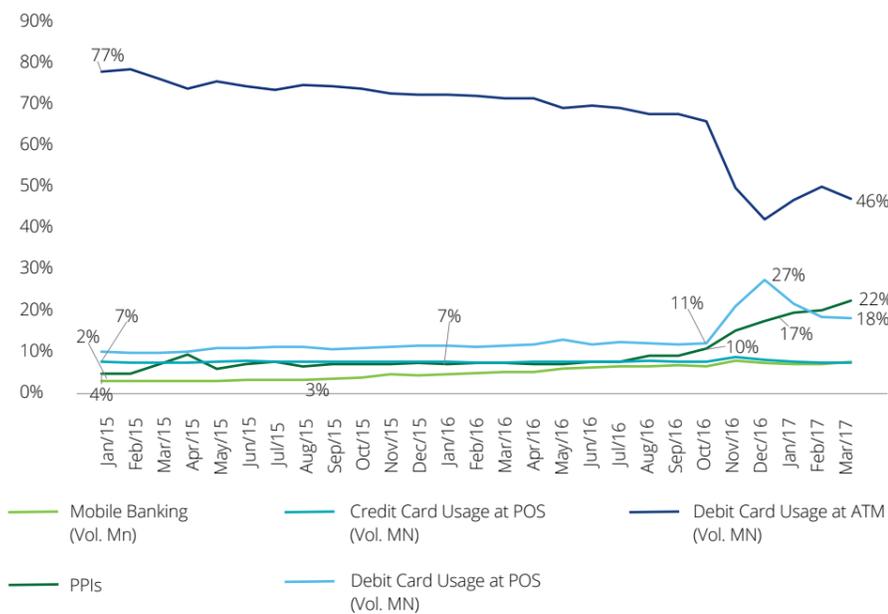
# Effect of Demonetization on the industry



On November 8, 2016, the Honorable Prime Minister announced the demonetization of all INR 500 and INR 1,000 banknotes. Given the wide circulation of these notes, the immediate impact of the announcement was a search among consumers for alternative payment

modes such as cards, mobile wallets etc. The industry saw an immediate surge as a result of the policy change and in the months following, digital payments increased and mobile wallets (PPIs) gained significant share of those transactions, as shown in the chart below:

**Figure 5: Effect of Demonetization: Share of monthly digital payment volumes (%)**



Source: Reserve Bank of India data; Deloitte Analysis

Between November 2016 and March 2017, the share of PPIs in all digital payments has more than doubled to reach 22%. This can be credited to the greater convenience that these provide over modes such as credit and debit cards. Consumers who

did not have a card before the policy announcement faced even further delays in getting them due to the rush at the banks in the immediate aftermath of the announcement. PPIs provided an easy alternative to cash.

# Competitive Landscape

The Indian mobile wallet market is highly fragmented and competitive. Players in

the market have used heavy discounting to attract users to their platforms. Some of

the major players in the market are shown in the table below:

**Figure 6: Major players in the mobile wallet space in India**

Company	Wallet Name	Revenue / Year of reporting	User Base / Reporting date
PayTM Mobile Solutions	PayTM	INR 830 Crore / FY16	200 Million / February, 2017
One MobiKwik Systems	MobiKwik	NA	55 Million / May, 2017
Oxygen Services	Oxygen Wallet	NA	25 Million / October, 2016
Accelyst Solutions	FreeCharge	INR 36 Crore / FY16	30 Million / October, 2016
PayU Payments	PayU Money	INR 190 Crore / FY16	NA
Citrus Payment Solutions	Citrus Pay	INR 38 Crore / FY15	30 Million / September, 2016

Source: Secondary research;

Competitive intensity is increasing among the top players in the industry as well. In September 2016, PayU acquired Citrus Payments for USD 130 million in the largest ever deal in the fintech space. This deal allowed PayU to add 30 million users to

its base and created a combined entity to compete with the 'payment-biggies' PayTM and Mobikwik. The Industry has also seen an entry of a number of large companies into the market. Players from across a number of sectors have been developing

their own mobile wallet products, furthering the competition in the space. Some of the major entrants seen in 2016 are summarized in the table below:

**Figure 7: Select market entries in 2016**

Entrant	Sector	Product Name and Launch Date	Description of product
Flipkart	E-Commerce	Flipkart Money (Semi-Closed); March, 2016	<ul style="list-style-type: none"> <li>Acts as a one-stop payment mechanism for all purchases on Flipkart</li> <li>Provides services such as managing payment methods, saving gift cards, cash back and instant refunds</li> <li>Also allows withdrawal of funds to a bank account</li> </ul>
BSNL	Telecom	SpeedPay; July, 2016	<ul style="list-style-type: none"> <li>Provides bill payment and recharge services</li> <li>Also allows withdrawal of funds to a bank account; users can also use the app to send money to another person's account, even if they don't use the app</li> <li>BSNL is increasing the number of tie-ups it has with banks where users can drop off and withdraw money through the wallet at these banks</li> </ul>
Reliance Jio	Telecom	Jio Money; August, 2016	<ul style="list-style-type: none"> <li>Provides bill payment, POS payment (at select vendors) and money transfer services to consumers</li> </ul>

Source: Secondary research; Company websites

In addition to the above, companies like Mahindra and Micromax India have also launched their own mobile wallet solutions and the trend of new entrants is expected to continue.

Interface (UPI), which has the flexibility and ease of use to rival mobile wallets. This interface allows sending funds from one bank account directly to another via a mobile transaction. A virtual ID gets created based on a single identifier based on which every kind of digital payment can be conducted. The key selling point of UPI is its interoperable i.e. there are 27

banks currently UPI-compliant, making the reach and ease of these transactions much greater. However, industry players feel that the value proposition of mobile wallets does not change as a result of this introduction due to advantage in transaction costs which make scaling up easier.

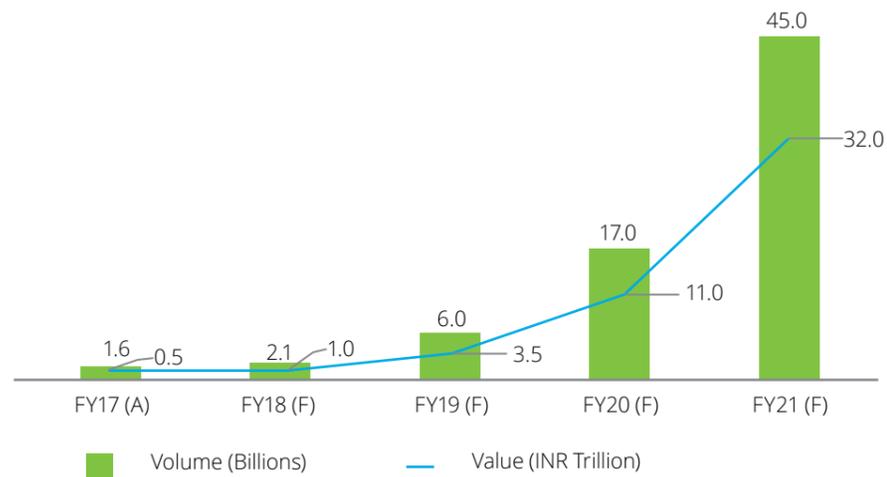
In August 2016, the National Payments Corporation of India (NPCI) launched the government's Unified Payments

# Future Outlook and key challenges

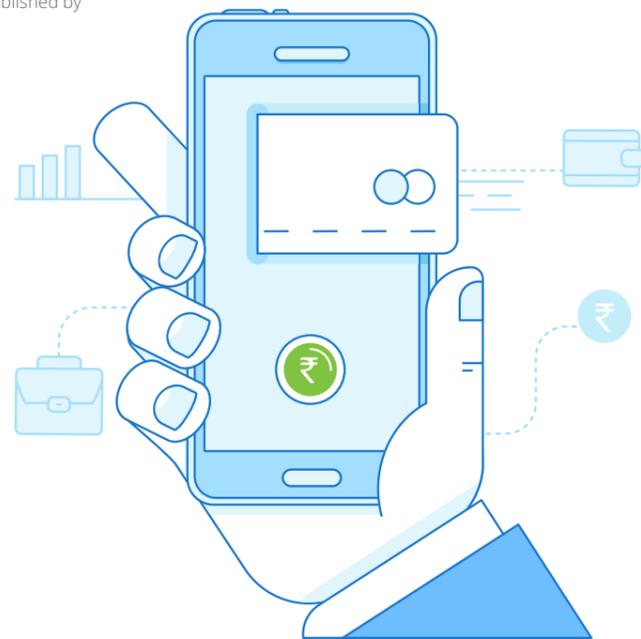
The mobile wallet industry is expected to maintain the pace of its current expansion. Transaction volumes are expected to grow at a CAGR of c. 94% between FY17 and FY21 to reach 32 billion transactions. Value of the transactions is also expected to rise

at a rate of c.126% to reach INR 32 trillion by the fiscal year 2021. As the penetration of mobile internet and smartphones aggregate, mobile wallets with their ease of use & convenience are expected to continue growing in popularity.

**Figure 8: Value and Volume forecast for the mobile wallet industry (FY17-FY21)**



Source: Reserve Bank of India Data; 'M-Wallet: Post Demonetization Scenario' Report published by ASSOCHAM India



Along the road however, there are a number of challenges that the industry faces and needs to overcome. These include the following:

**01. Inertia in adoption:** Cash transactions have been the dominant payment mode for Indians for a very long time. Even though the penetration of digital payments has been rapidly increasing, concerns regarding security, privacy and transparency of charges are still prevalent among consumers. Industry players will need to invest significant effort to overcome this barrier, not only through marketing campaigns, but also through actual continuous product improvement

**02. Risk of security breaches and fraud:** The risks of a breach leading to financial loss is a very important decision factor for adoption of digital payment technologies. Ensuring the security of the technological system is key, since singular events of breaches can lead to large reputational and financial losses for companies. Maintaining privacy of the consumers is also an important challenge, as an increased amount of data is collected and stored

**03. Competition from Credit & Debit Cards:** Cards form one of the biggest challenges to further adoption of mobile wallets. Given the current limits on transactions through this channel, limits which are wider in the case of cards does provide a significant roadblock to adoption

**04. Issues with compatibility:** Not all applications are made for all operating systems on mobiles. Many products currently on the market are only compatible with one or two operating systems (most commonly iOS and Android). Consumers are looking for options that make transactions the most convenient, and issues with compatibility can hamper that experience. Ensuring compatibility across all the major operating systems will play a key role for these companies

**05. Consolidation in the industry:**

Despite the surge in the user base and popularity, mobile payment companies are increasingly moving towards consolidation in the e-wallet space. As mentioned earlier, PayU acquired Citrus Payments, Flipkart took over the payments app, PhonePe, while Shopclues acquired Momoe, the mobile wallet for offline stores. Lack of funding and growth in transactions between merchants and existing customers of wallet companies has forced consolidation in this space. Investors are looking at minimizing costs and changing the business model, issues the firms will need to address in the future

**06. Impact of UPI:** Introduction of UPI has created greater competition for mobile wallets but in the short-term, mobile wallets are not expected to face a great impact. UPI powered apps will need to deliver on a number of fronts including transaction costs and ease of use that rivals that of mobile wallets. However, there is scope for some future cannibalization, and is a challenge the industry must face in the long-run

**07. Moving beyond core services:**

Players in the mobile wallet space have begun moving beyond their core service and delivering collateral services. For example, PayTM provides a broad range of m-commerce services. Offline connect has become one of the significant domains adopted by mobile wallet players to democratize their platform. In addition to m-commerce, other e-wallet players like MobiKwik have ventured into hyper local transactions, cash pick-up and micro-credit facilities. Adapting business models to meet consumer needs, and to differentiate products from other alternatives, including the UPI, will be a continual challenge for the companies.

# Glossary

%	Percentage
c.	Close to/ Approximately
GOI	Government of India
CAGR	Compound Annual Growth Rate
RBI	Reserve Bank of India
FY	Fiscal/ Financial Year
PPI	Prepaid Payment Instrument
INR	Indian Rupees
USD	U.S. Dollar
iOS	Apple Inc. Operating System for mobile phones
Android	Google Inc. Operating System for mobile phones
UPI	Unified Payments Interface
NPCI	National Payments Corporation of India
I.D	Identification
(A)	Actual figure
(F)	Forecast

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