

# India Digital Payments Report 2018



Worldline India (WI) is wholly owned by Worldline SA, a leading payments company in Europe that is listed on Euronext Paris. Worldline entered India in 2010 with the acquisition of Venture Infotek followed by the acquisition of MRL Posnet in 2017. While WI's business is primarily in India, it is expanding its footprint in the Middle East, Sri Lanka and Bhutan. Headquartered in Mumbai, it has offices in 10 cities and a reach in over 3000 cities and towns across the geographic spread of India. Worldline India is a transactions facilitator in all spectrums of the digital payments ecosystem and provides the highest available level of products, services and solutions that are fully compliant with PCI and Reserve Bank of India guidelines, along the full length and breadth of the payments value chain. The main areas of business in the digital payments ecosystem it is involved in are:

**POS Merchant acquiring** – WI works with over 30 banks and institutions and has an excess of 1 million merchant touchpoints PAN-India accounting for 30% of the merchant acquiring touchpoints – the largest in the Indian merchant acquiring industry – in the form of both POS terminals and QR code decals with the former accounting for over 85%. These terminals allow merchants to accept payments in a variety of channels; cards, QR codes and wallets. WI manages the terminal fleet, processes the payment transactions and provides an end-to-end service. In 2018, WI processed over 1 billion acquiring transactions.

**Card Issuance** – In this space, WI manages end-to-end solutions for credit and prepaid cards. It works with 14 banks and prepaid issuers managing over 5 million cards in India and outside.

**EMI solutions for Non-Bank Finance Companies (NBFCs)** – Worldline India works with 2 leading national NBFCs providing end-to-end customized EMI (Equated monthly instalments – a specific type of consumer) solutions. WI manages over 8 million customer accounts for these clients.

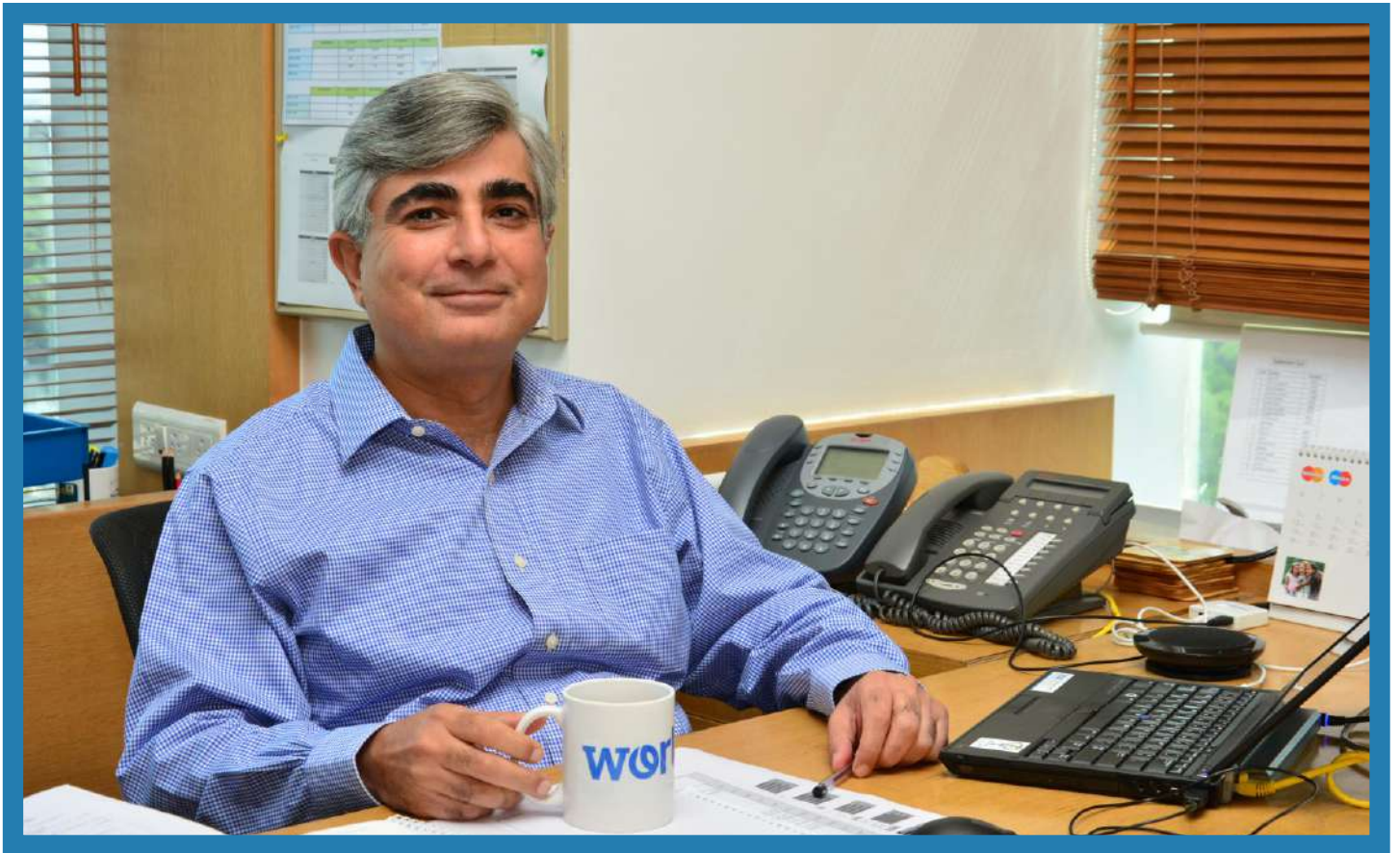
**Loyalty solutions for petroleum companies** – WI built a full-fledged loyalty solution and operates it for oil majors Bharat Petroleum, Indian Oil and Shell.

**Internet payment gateway** – WI has an advanced offering focussing on specific sectors providing a fast, reliable and secure payment gateway to process online transactions.

**Risk Mitigation** – Using a combination of a global risk engine and home-grown sophisticated risk engines that incorporate machine learning, WI provides fraud and risk mitigation services in the areas of merchant acquiring, card issuing and internet payment gateway to over 20 banks.

**Value-added services** – WI provides merchants value-added services on their terminals such as bank and brand EMI, dynamic currency conversion, among others.

Worldline India is constantly investing in the latest technology to increase efficiencies, drive innovation and deliver customer delight. It is the payment partner of choice for merchants, banks, government agencies and industrial companies, delivering best-in-class digital transaction services.



It is heartening to see that Indian consumers are switching to non-cash methods for making payments and we at Worldline have a front-row seat to these fast paced changes.

While innovative payments services providing convenient payment products have been successful in transforming the way we make payments today, the biggest change undeniably is that it is now 'normal' for people to make digital payments and for small merchants to accept them – this is what is making the digital payments revolution in India sustainable.

Worldline has analysed the payments trends for 2018 using market data. We are proud to present an in-depth analysis of payment trends across traditional channels like debit and credit cards and new payment methods like mobile based payments, e-wallets etc. The report also analyses the consumer spending pattern across all categories based on the transactions facilitated by us. In addition, we also analysed the payments landscape in China as well as how UPI 2.0 will lead to the development of a new ecosystem.

**Deepak Chandnani**  
**Managing Director, Worldline South Asia & Middle East**

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A news story from 2018 reported that beggars in China were accepting alms by showing a QR code on either a smartphone or a printed version. There is probably some hyperbole in that story, but it indicates how ubiquitous digital payments have become in China. In 2017, the ratio of non-cash transactions to GDP stood at 45 compared to 20 for India.

Mobile payments (QR codes) are the dominant mode of payments – it is estimated that 49% of e-commerce transactions are done using wallets; Alipay and WeChat Pay lead the charge reportedly accounting for 92% of mobile payments. Payments through cards by comparison accounted for only 23%.

Even for in-person transactions, digital payments dominate. Professionals in Shenzhen will tell you that it is very common for them to not do a single cash transaction for multiple weeks. Tencent, the company behind WeChat said that 40% of their users carry less than RMB 100 (a little over INR 1000) on them. In what is probably a proxy for how much digital payments have penetrated, the Chinese central bank, the People's Bank of China (PBC), warned that it is illegal for merchants to NOT accept cash as payments for goods and services.

When it comes to numbers, everything in China is about scale. At the end of 2016, there were 24.54 million POS terminals which increased to 31.19 million POS terminals at the end of 2017 and to 32.31 million by the end of Q3 2018. For comparison, India had a total of 3.59 million POS terminals at the end of 2018. The number of cards issued at the end of Q3 2018 stood at 7.38 billion; 6.726 billion were debit cards and 659 million were credit cards. The number of consumer payment transactions done using cards in 2017 stood at 58.67 billion compared to 69.46 transactions for the first 3 quarters of 2018. The value of these card transactions was RMB 68.67 trillion (USD 10.21 trillion) in 2017 compared to RMB 67.31 (USD 10.01 trillion) for the first 3 quarters of 2018.

However, the real wide eye-opener is mobile payments. According to the PBC, the number of mobile payments stood at 25.71 billion transaction in 2016. This rose to 37.55 billion in 2017 and 42.81 billion for the first 3 quarters on 2018. In terms of value, mobile payments accounted for RMB 157.55 trillion (USD 23.45 trillion) in 2016, RMB 202.93 trillion (USD 30.18 trillion) in 2017 and RMB 199.18 trillion (USD 29.63 trillion) for the first 3 quarters of 2018; 2018 transactions will likely be about RMB 275 trillion (USD 40.9 trillion). Frost & Sullivan projects that mobile payments will hit a staggering USD 96.73 trillion in 2023. For reference, UPI transactions amounted to USD 83.35 billion in 2018.

So, what is it that the Chinese digital payments ecosystem has going for it that is causing this explosion? Apart from having a solid back-end, it pretty much is down to user-experience. The ability to pay through omni-channels seamlessly blended with social media, e-commerce shopping and other functions such as finance has led to mobile payments becoming such a force to reckon with.

*Sunil Rongala*

*VP – Strategy, Products and Analytics*

Unified Payments Interface (UPI), one of the most advanced, innovative, and financially inclusive platforms in the world is rapidly becoming the preferred mode of payment among consumers in India. Clocking around 670 million transactions a month, the platform has managed to create its own payments ecosystem in a very short span of time. UPI's initial success can largely be attributed to its intrinsic values that are inspired by solutions such as mobile-first, cost - effective, interoperable and open-source platforms that are secure and reliable. While e-wallets, technology and Fintech companies are leveraging UPI to attract new consumers, banks are extending their reach to provide an alternative payment service to their customers and other users. Thanks to this innovation, customers of 129 banks can now choose any UPI app for making payments.

However, in spite of the over 760% growth in the number of UPI transactions (and about 100 UPI apps) achieved in 2018, market estimates indicate that P2M (person to merchant) transactions contributed roughly around 20 per cent only. For UPI to become a truly universal payment option in the country, the existing UPI solution needed to be more than a P2P (person-to-person) platform and UPI 2.0 did just that. The roll out of upgraded UPI features look promising to enhance digital adoption among merchants. P2M transactions can rise closer to 50% with features like capture and hold (which can create hundreds of new use cases in the e-commerce industry) and the refund mapping feature (which can provide better user experience and enhance transparency). With transaction limits doubling, large e-commerce merchants with high value transactions will also show interest in the platform.

The UPI payment experience is smooth, and users find it easy to carry out a transaction. Frictionless solutions like in-app payments, proximity payments, UPI @ POS should be widely familiarized. Acceptance across categories like mutual funds, grocery, bill payments, shopping, UPI for IPO payments etc. is the need of the hour. Deploying UPI QR codes at local merchant outlets will certainly build app stickiness which can gradually make UPI the de-facto mode of online payment too. While several Fintech entrepreneurs already claim that UPI is emerging as the preferred gateway for consumers to repay loans, it should also gradually spread across Internet Payment Gateway like services and provide consumers with an integrated customer experience. Furthermore, RBI guidelines pertaining to inter-operability among mobile wallets, and between bank account and e-wallet through UPI would give a big boost to UPI usage once implemented.

Consumers, in general prefer using user-friendly and functionality rich UPI enabled apps to make all kinds of payments. In China, over 1 billion people use WeChat, which is also known as a “Super App” and “App of everything” because of its wide range of functionalities. Similarly, Alipay enjoys customer base of about 900 million and has over 50 per cent share of the third-party payment market in mainland China. To create China like story for UPI, Fintech and startups, in collaboration with banks should build more customer-centric use cases to drive digital adoption and bring financial inclusion to the masses, even in the smaller towns of India where use of technology is sub-par. Given the interoperability of UPI, getting numbers of China should not be impossible.

The payment ecosystem also needs to build a large online and offline merchant-acceptance network as that would prove to be a catalyst to achieve the dream of 'Digital India'. Given the growth being seen, it is very likely that UPI will cross a billion transactions a month by the end of 2019.

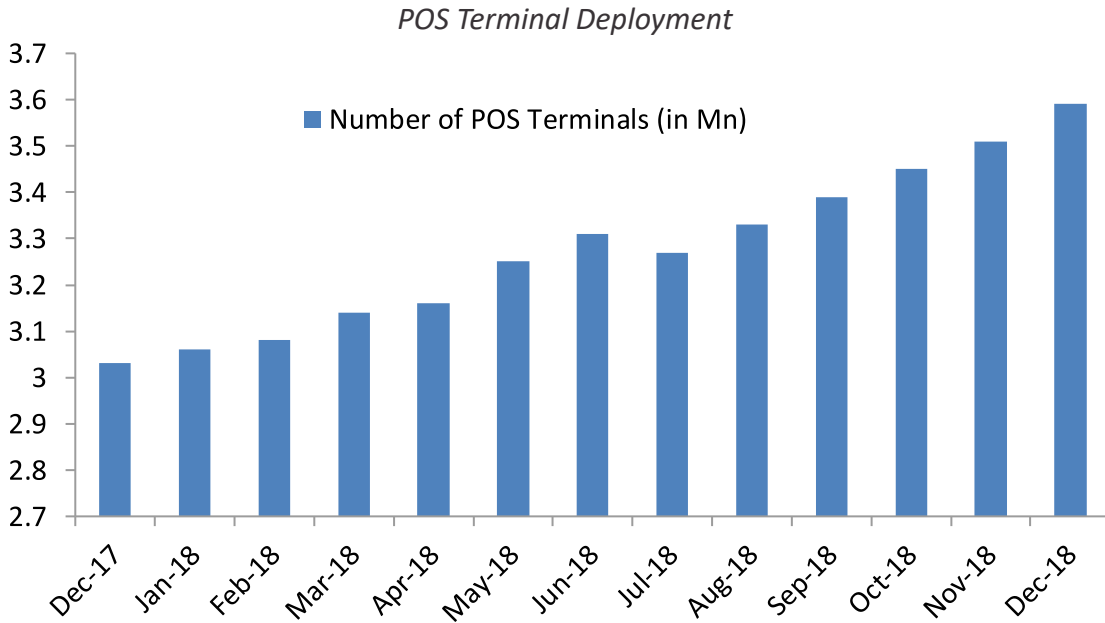
*Manish Kohli & Rafea Dalvi*

## 2018 : A Year in Review

From the perspective of the payments industry, 2018 was a year that laid the groundwork for amazing innovations and continued expansion into new fintech territory and set the payments industry up for an exciting 2019.



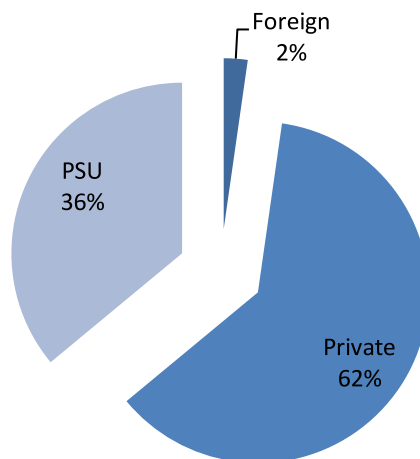
In 2018, there was a concentrated effort by the government and banks to increase the number of terminals. The finance minister, Arun Jaitley reiterated the goal of deploying 1 million POS terminals in the 2017-18 union budget. However, the number of point of sale (POS) terminals increased only from 3.06 million in 2017 to 3.59 million 2018, an increase of 17.3%.



Source: Reserve Bank of India

The private sector banks led the way with POS terminal deployment both in terms of numbers and year-on-year growth. The total POS terminals deployment stood at 2.3 million for private sector banks (up by 32.1% from Dec-17), 1.2 million for public sector banks (down by 0.7% from Dec-17) and 0.07 million for foreign banks (up by 11.5% from Dec-17).

*Share of Banks (POS terminals)*



Source : Reserve Bank of India



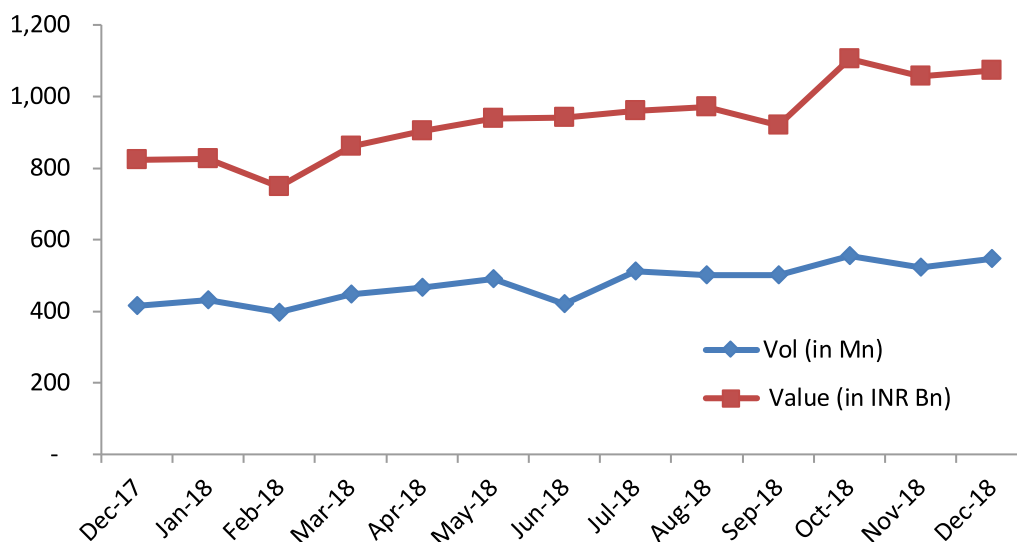
It is interesting to note the growth in volume and value of POS terminals didn't translate to the total share of transactions done by cards (ATM + POS). While the transactions at POS terminals increased from 4.6 billion transactions in 2017 to 5.8 billion transactions in 2018 (up by 26%), the share of card transactions at POS terminals to total card transactions remained constant at 35% to 38% only.

Similarly, while the value of transactions at POS terminals have increased from INR 8.8 trillion in 2017 to INR 11.3 trillion in 2018 (up by 27%), the share of value of money spent through cards at POS transactions to total money spent through card transactions at POS terminals and ATMs went up from 25% to 26% only.

This number is of particular interest because the number of POS terminals actually increased by 17% while the number of ATMs reduced during the year indicating that despite advances being made in digital payments, cash is still king.

In addition, while 29% of all transactions done on POS terminals were done through credit cards and they translated to 50% of the total amount spent on POS terminals. One reason is the availability of the EMI feature at POS terminals through credit cards which the consumers use to purchase high value items. Recently, few banks have also started issuing debit cards with the EMI feature and it may increase the share of value of debit transactions.

*Volume and Value Growth of transactions on POS Terminals*



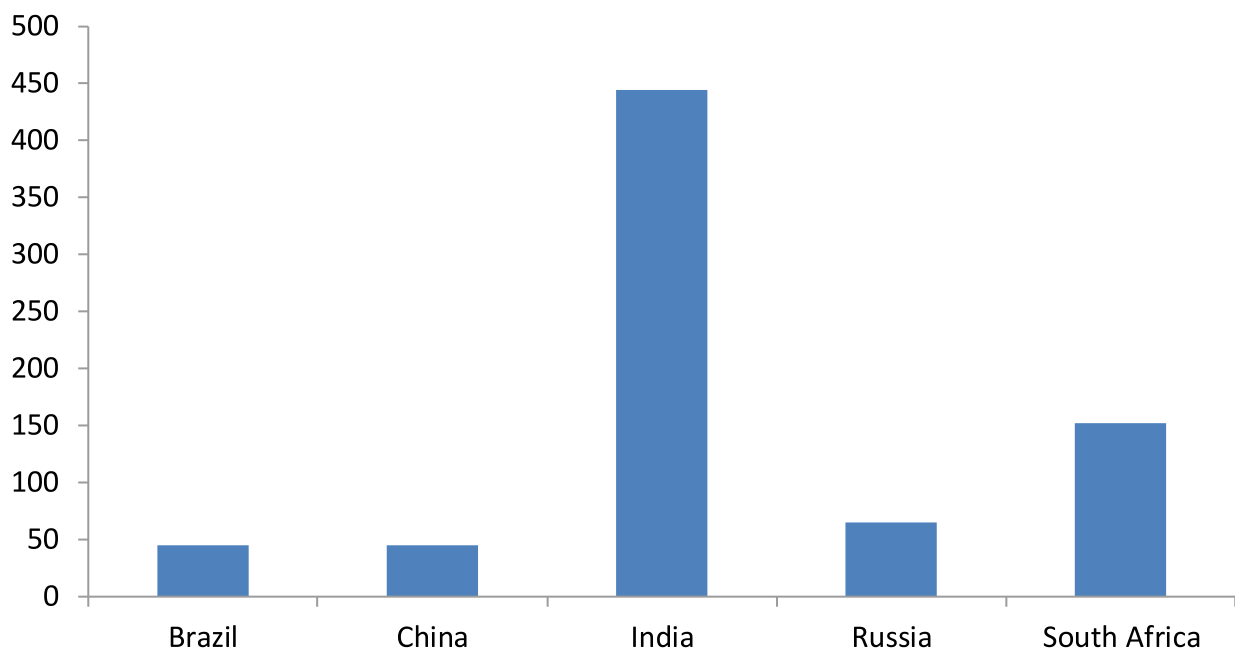
Source : Reserve Bank of India

The POS terminals market in developing countries has experienced a substantial turnaround due to the improvement in economic conditions, growing tech-savvy population, growth in the number of departmental & retail stores and adoption of mobile devices for POS transactions. The demand for POS terminals is expected to increase further in proportion with the implementation of advanced technologies such as real-time analytics features.

As far as India is concerned, the growth is good but the potential is vast. While the number of POS terminals has doubled since demonetization, the merchant acquisition infrastructure potential remains largely unfulfilled. This presents immense opportunities.

The number of POS terminals per person is a good indicator of the huge market potential of POS terminals in India vis-à-vis the BRICS countries. The below chart indicates that India still can grow by at least 7-8 times from the current number with some to spare.

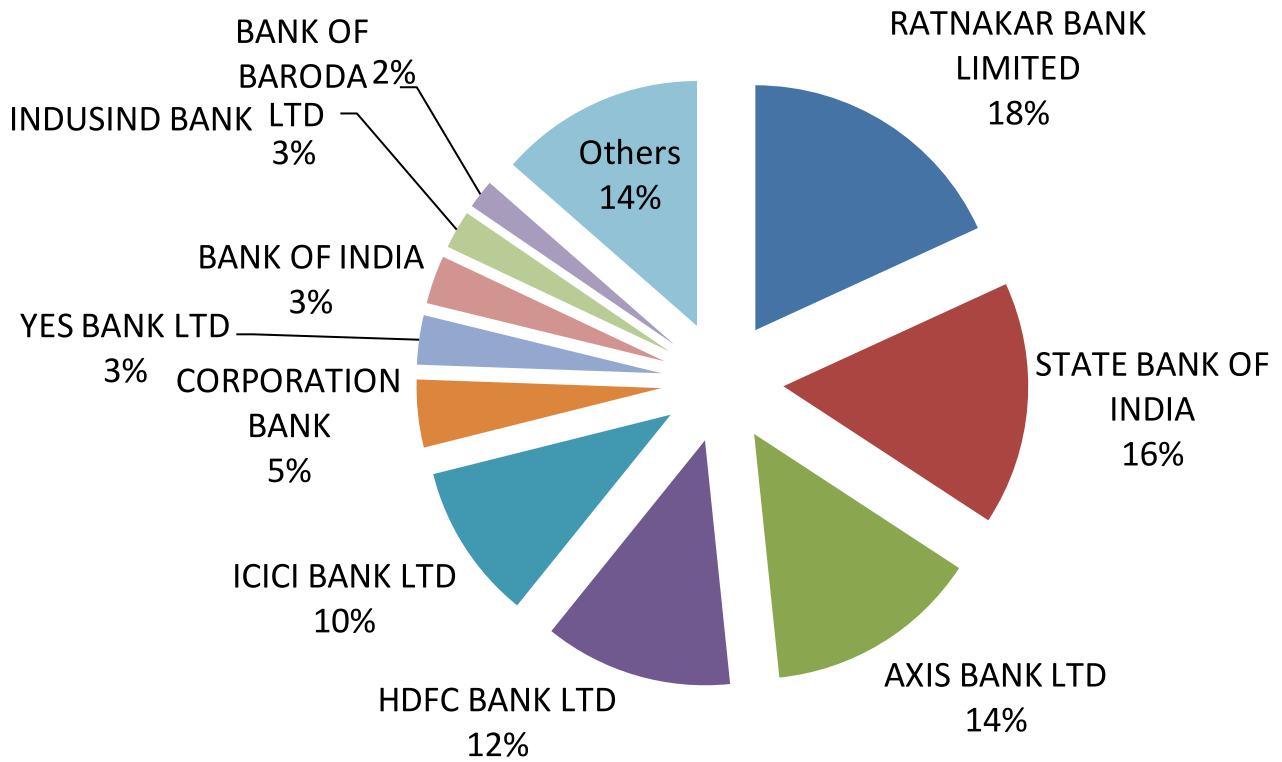
*Number of people/ POS terminal*



Source : Reserve Bank of India, BIS

Given this potential, several companies have entered the physical POS terminal market and made investments to install POS terminals across retail outlets.

*POS terminals by Merchant Acquiring Banks*



Source : Reserve Bank of India

## Worldline Insights: Merchant Acquiring (Point of Sale Terminals):

Worldline has over 1 million merchant touchpoints PAN-India accounting (30% of the merchant acquiring touchpoints) and we have analysed the 1 billion plus transactions processed by us in 2018 and provided some unique insights.

The merchant categories with the highest volume and value of transactions in 2018 were Grocery Stores and Supermarkets, Restaurants, Service Stations, Clothing Stores and Hotels which accounted for about 45% of transactions. The categories remained the same for both credit and debit card transactions.

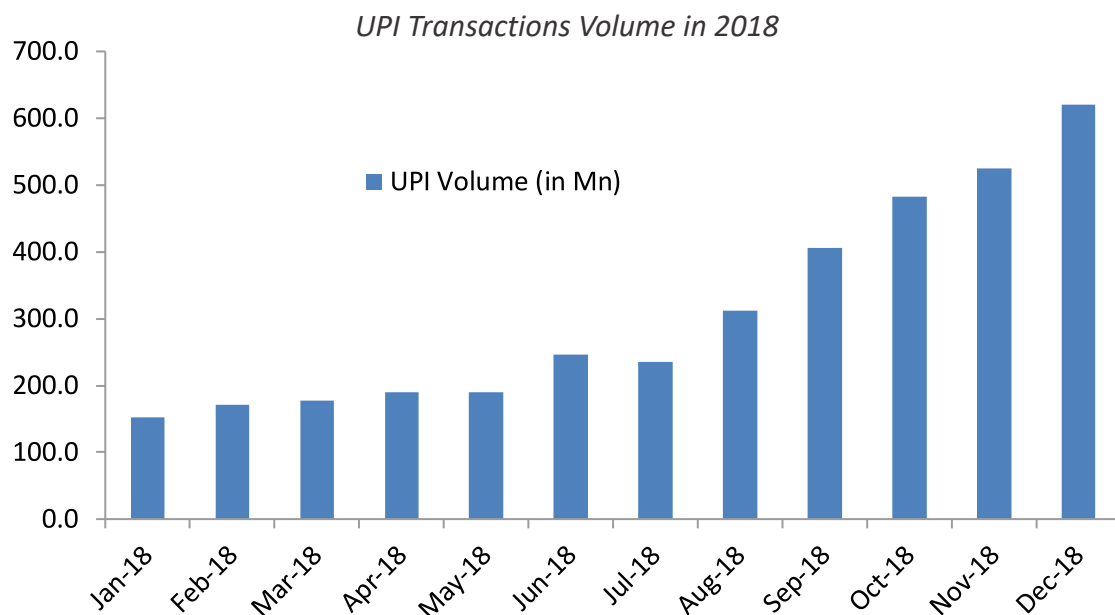
December was the month with the highest number of transactions while November 4 ranked as the day with the highest number of transactions but this should come as no surprise given Diwali shopping. The day with second highest number of transactions was June 16 but then again it should come as no surprise since it was the day of Eid-ul-Fitr. Therefore, we can safely say when there's a festival in India, expect a much higher than average number of transactions.

The states and cities with the highest number of transactions are:

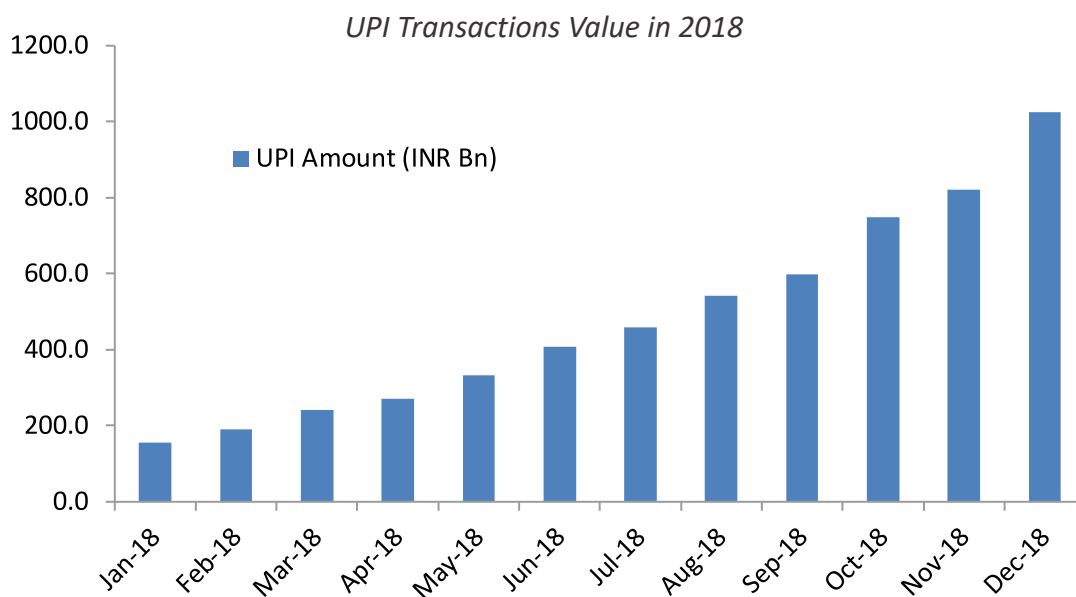
Top 10 States in transactions	Top 10 Cities in transactions
MAHARASHTRA	BANGALORE
KARNATAKA	MUMBAI
TAMILNADU	CHENNAI
DELHI	PUNE
ANDHRA PRADESH	HYDERABAD
GUJARAT	DELHI
UTTAR PRADESH	KOLKATA
KERALA	NEW DELHI
WEST BENGAL	GURGAON
HARYANA	COIMBATORE

The award-winning Unified Payments Interface (UPI) is one of the most financially inclusive platforms in the world and it is rapidly becoming the preferred mode of payment among Indian consumers. Its success can largely be attributed to that fact that one can transfer money from one bank to another directly seamlessly without the need to load a wallet.

UPI grew monumentally in 2018 granted though it was from a smaller base but it doesn't take away from the achievement. The total volume of UPI transactions in 2018 was 3.7 billion transactions, a 769% increase from the previous year. In terms of value, UPI transactions clocked INR 5.79 trillion, up 922% from the previous year.



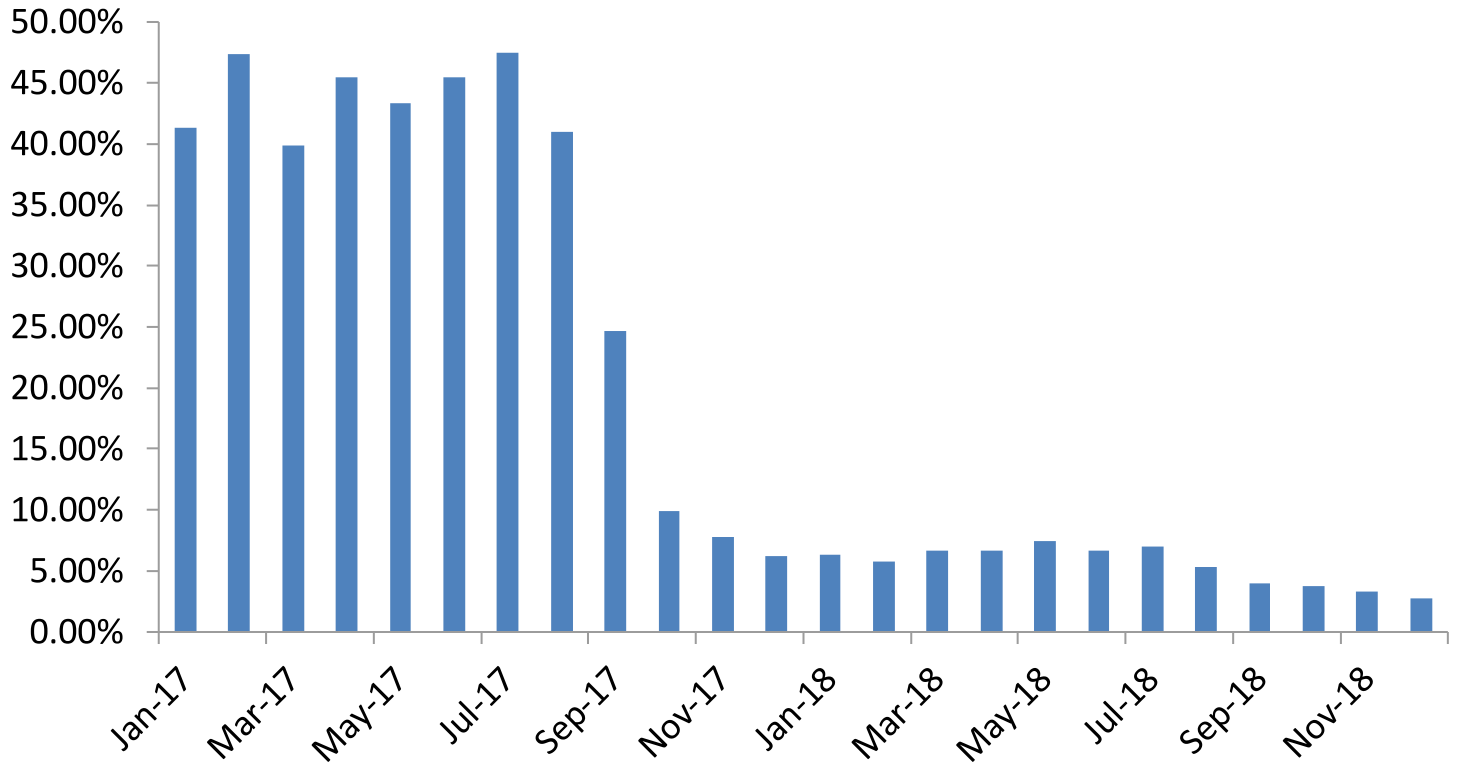
Source: NPCI



Source: NPCI

The predominant players in UPI today are PhonePe, Google Pay, Paytm and BHIM. The other larger ones are apps created by banks such as ICICI, Axis, Kotak, SBI etc. With increased competition from domestic players and entry of global players like WhatsApp, BHIM is losing its market share consistently with the competition attracting customers by incentivizing them with attractive cashback offers.

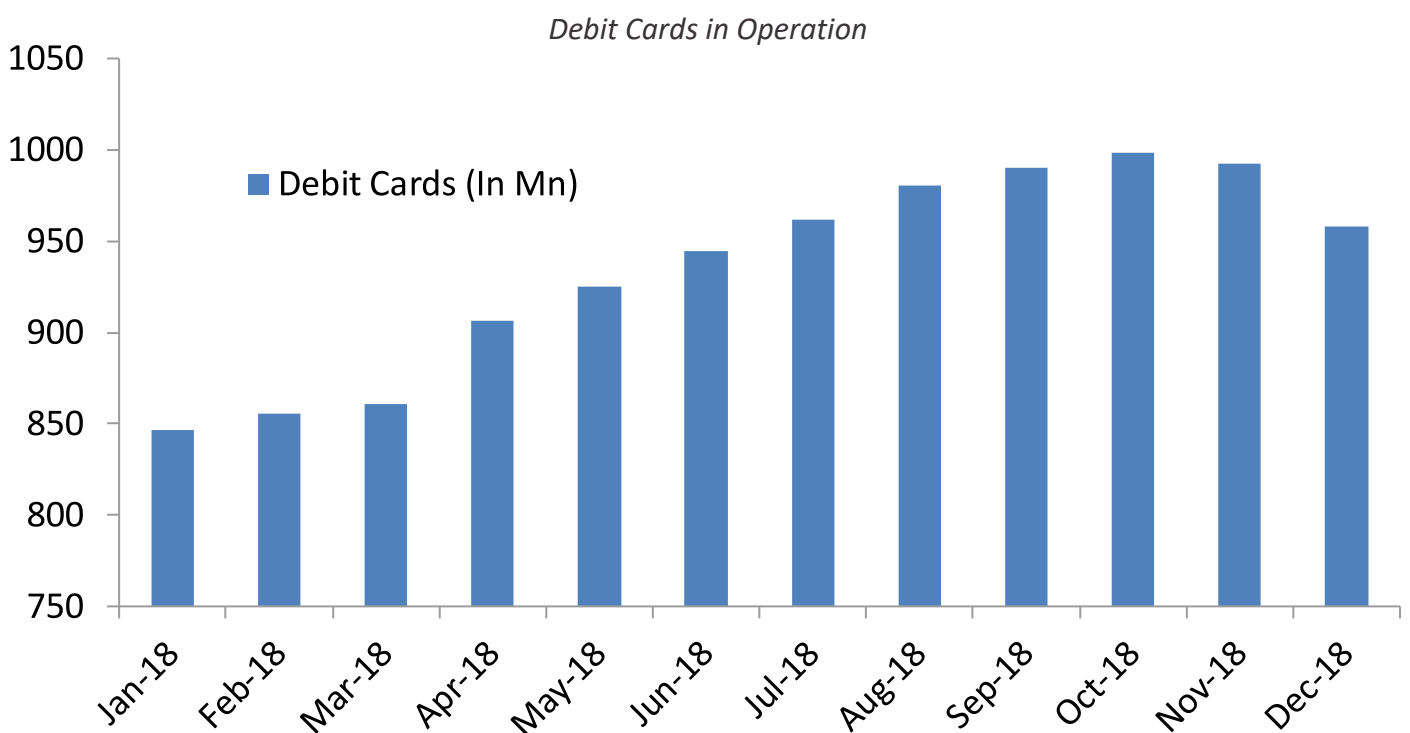
*BHIM Market Share*



Source: NPCI

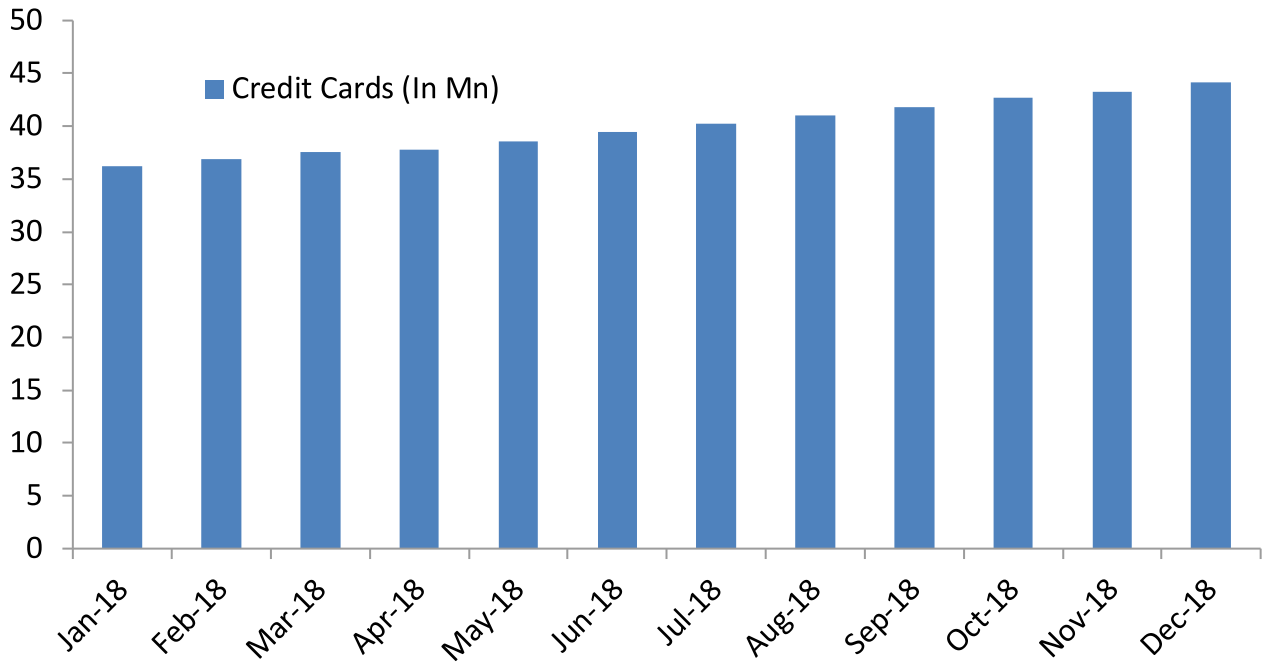
The number of credit and debit cards in India is steadily increasing despite the surge in payments through smartphones. Like POS terminals, the threat of cards being no longer relevant is exaggerated and the demand for payment cards isn't going anywhere soon. However, it should be noted that cards aren't just physical anymore; virtual cards are also being issued. As a confidence building measure for consumers, the Reserve Bank of India (RBI) has mandated banks to replace all existing magnetic stripe-only cards with EMV chip cards by 31 December 2018 to enhance the level of security. This added security means that physical cards are going to remain part of the consumers wallet.

According to the Reserve Bank of India, as of December 2018, a total of 44.2 million credit cards and 958 million debit cards were in operation. It is interesting to note that of the total debit cards issued, RuPay cards now account for about 500 million or a little over 50%. In terms of transactions, RuPay is aiming to become the number 2 scheme (Visa, MasterCard, RuPay, Amex etc.) in terms of volume and value of transactions. Between December 2017 and December 2018, India added a little less than million credit cards and about 116 million debit cards. It is worth noting the number of debit cards started falling after hitting a high of 998 million in October. This fall in the number of debit cards could likely be because of the mass closure of accounts with zero balances.



Source: Reserve Bank of India

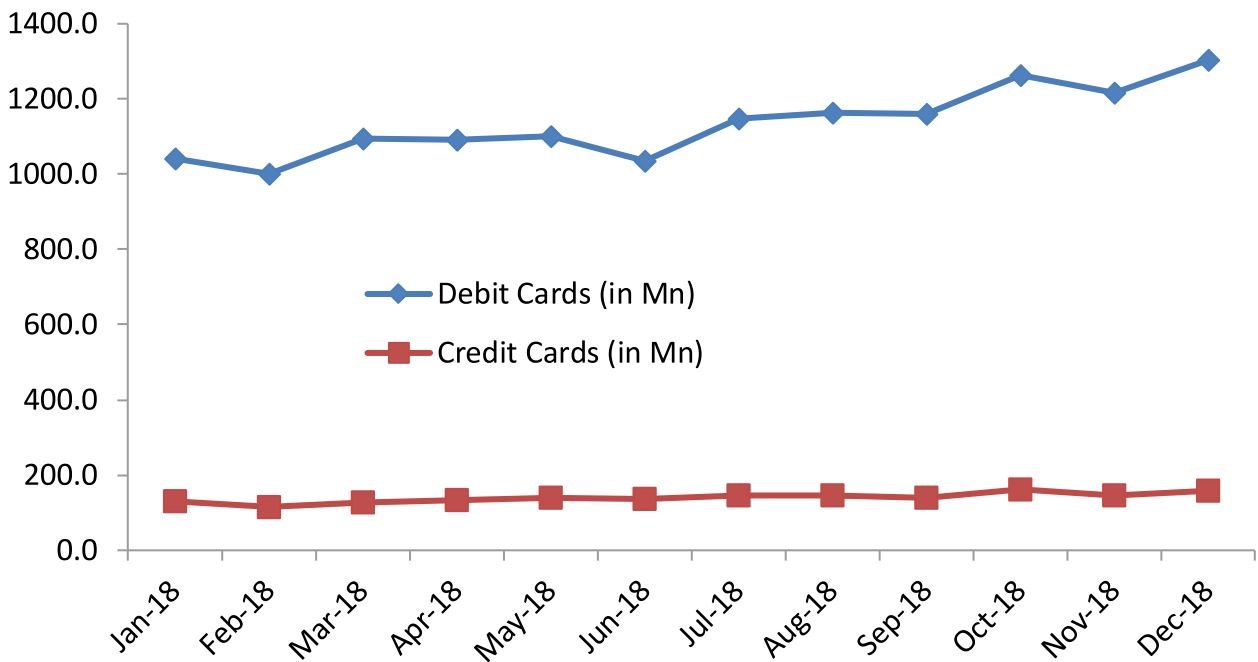
Credit Cards in Operation



Source: Reserve Bank of India

In 2018, the total number of credit card transactions was 1.68 billion transactions, an increase of 24% over the previous year and the total number of debit card transactions was 13.62 trillion transactions, an increase of 16.1% over the previous year.

Credit and Debit Card Transactions Volume in 2018

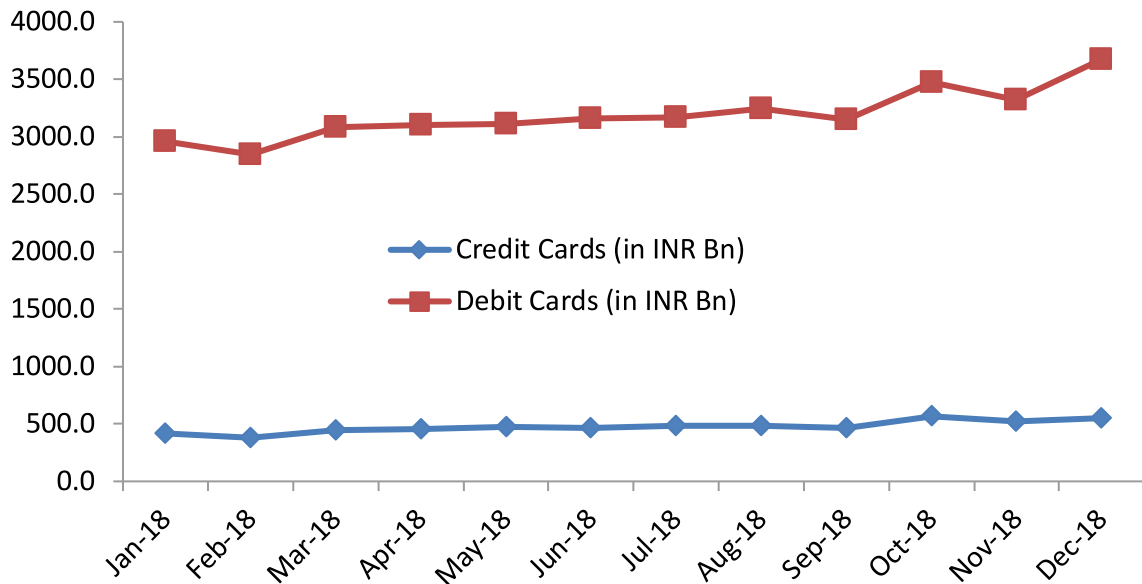


Source: Reserve Bank of India



In 2018, the total value of transactions done by debit cards was INR 38.3 trillion, an increase of 21.49% over the previous year. The total value of transactions done on credit cards INR 5.69 trillion for credit cards, an increase of 31.59% over the previous year.

*Credit and Debit Cards Transactions Value in 2018*



Source: Reserve Bank of India

The below table illustrates how credit and debit cards are used. It is quite clear that debit cards are largely used for ATM withdrawals while credit cards for POS transactions. Also, consumers tend to make larger ticket size purchases at POS terminals when compared to debit cards.

*Credit and Debit Cards Transactions in 2018*

	Volume (million)		Value (INR billion)		Average ticket size (INR)	
	POS	ATM	POS	ATM	POS	ATM
<b>Credit cards</b>	1670.7	9.5	5654.4	44	3380.7	4644.4
<b>Debit cards</b>	4116.9	9505.5	5648.7	32651	1375.8	3437.4

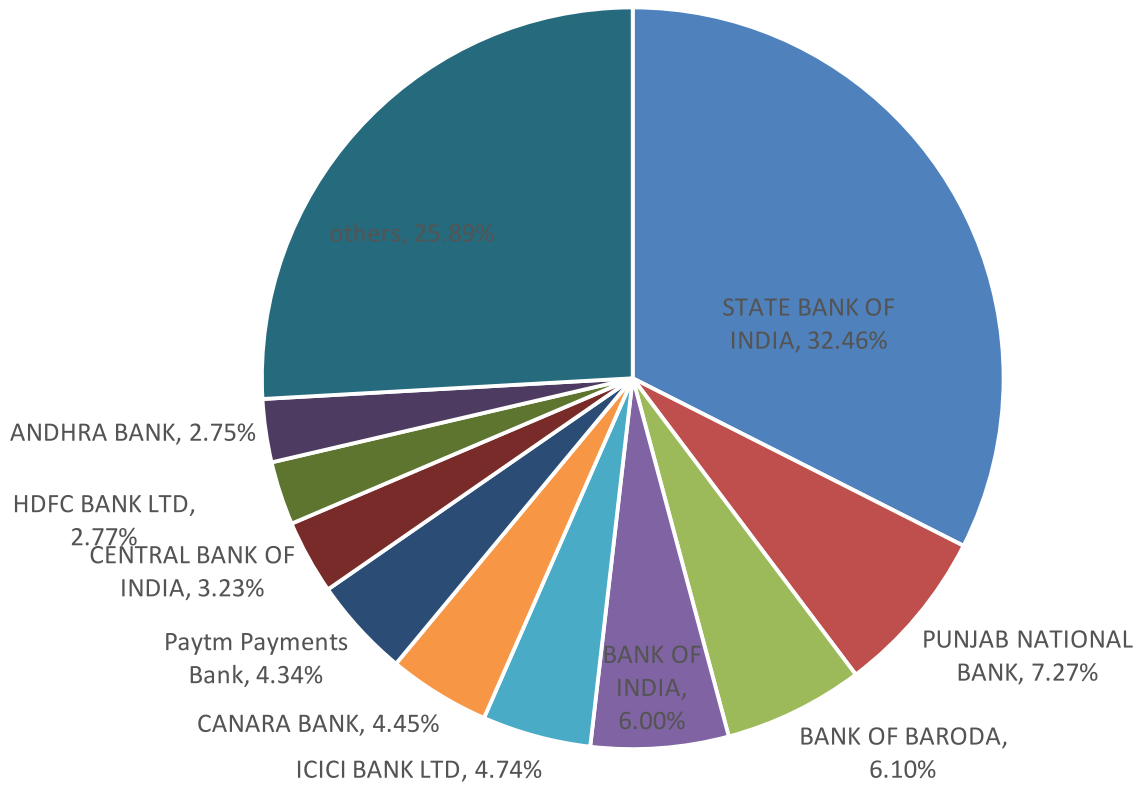
Source: Reserve Bank of India

*RuPay Card Transactions at POS in 2018*

Volume (million)	Value (INR billion)
676.03	724.95

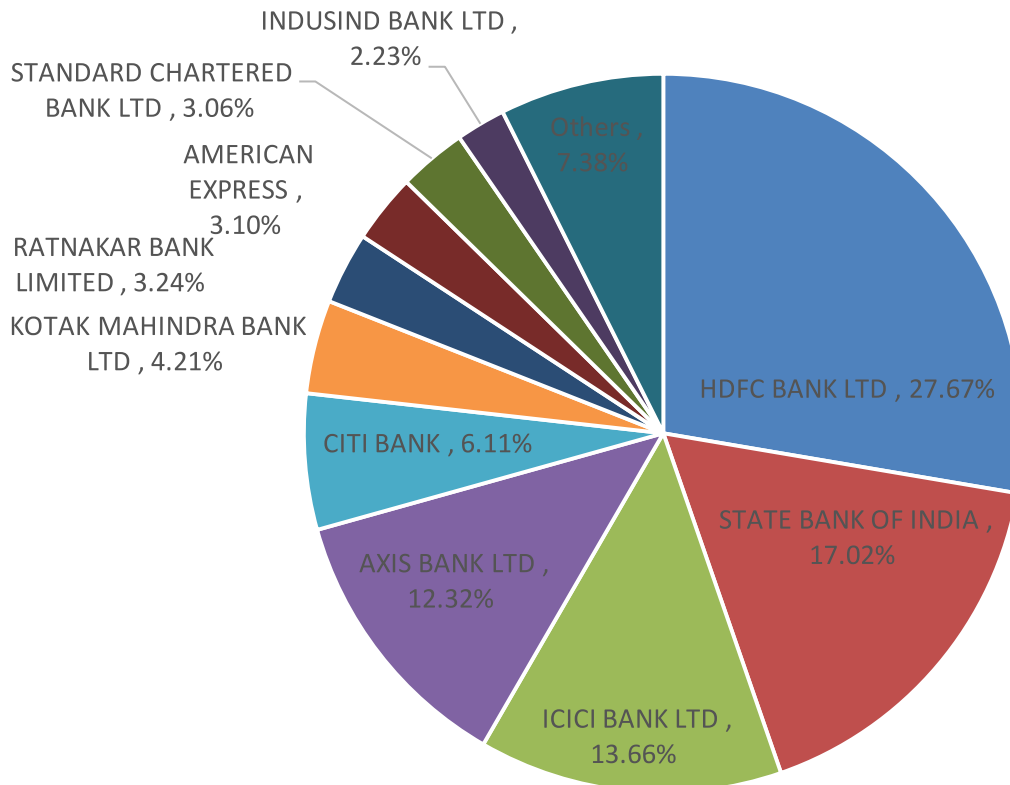
Source: NPCI

*Debit Card Issuers*



Source: Reserve Bank of India

*Credit Card Issuers*



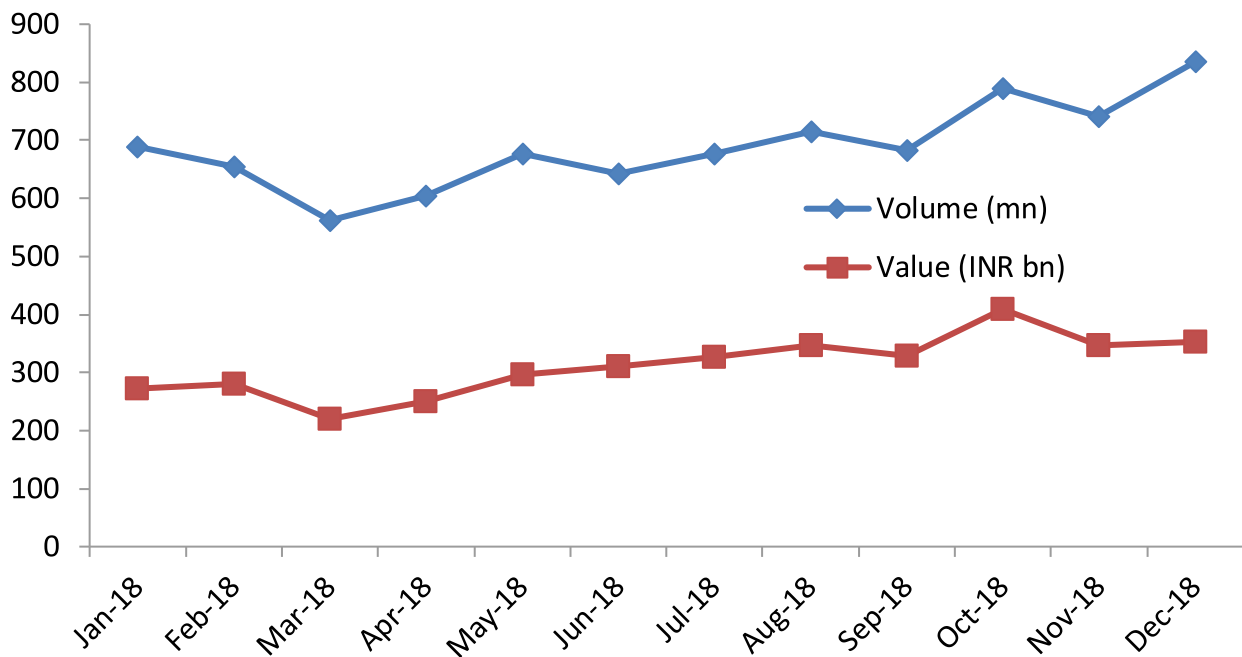
Source: Reserve Bank of India

Come 2019, more and more Indians will adopt different forms for cashless payments and wallets will be high on the list. This has been driven by innovative solutions from well-funded mobile wallet players, improved mobile broadband with low tariffs and affordable smartphone prices.

The Indian e-commerce market has the potential to grow more than four folds to US \$150 billion by 2022 supported by rising incomes and a surge in internet users. Digital consumer spending in India is expected to double to cross US \$100 billion by 2020, driven by women and new internet users from smaller cities, according to a report by Google India and BCG. This bodes well for the mobile wallet companies as most e-commerce companies lure new users through discounts and cashbacks on mobile wallets and this will in turn increase the volume and value of mobile wallet transactions.

The number of transactions done on mobile wallets in 2018 was 3.98 billion, an increase of 33.4% over 2017 while the value of transactions in 2018 was INR 1.73 trillion, an increase of 81.46% over the previous year.

*Volume and Value of Transactions done on Mobile Wallets*

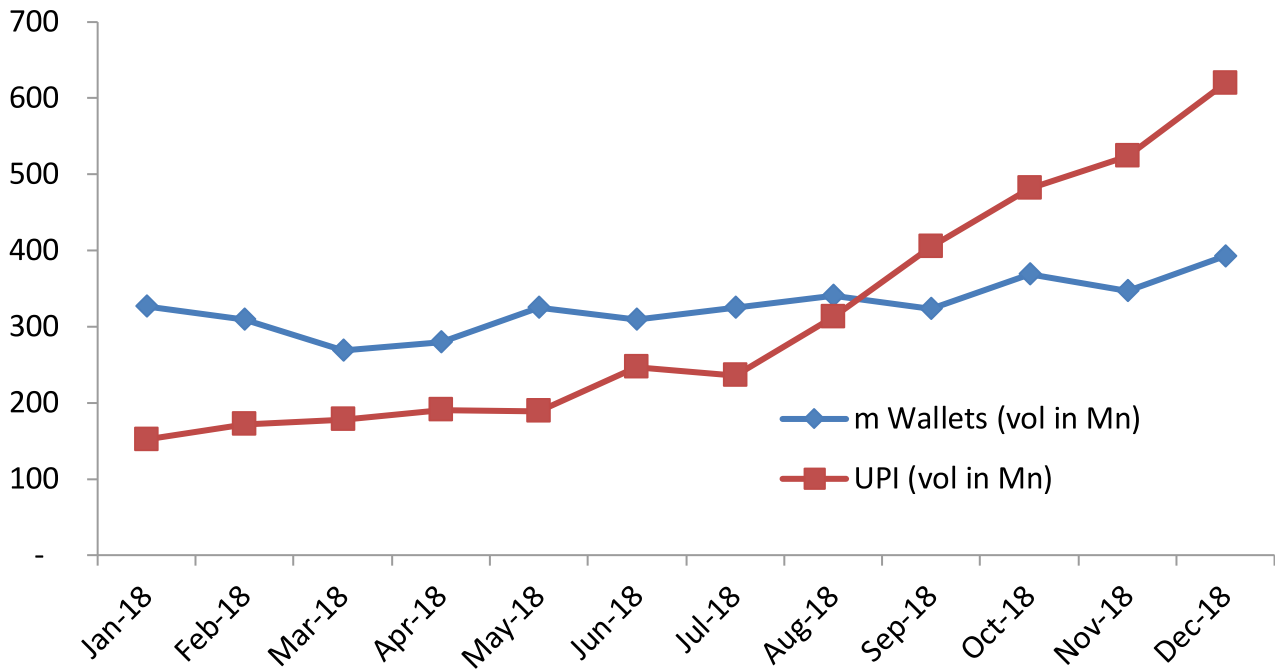


Source: Reserve Bank of India

The dip in volumes in the month of March was due to regulatory hurdles in which the wallet players had to capture complete KYC details of their customer base. Since then, the deadline has been extended and the players are looking at alternative KYC solutions.

Consumers are making low-value transactions using both UPI and mobile wallets and higher value ones using cards and net banking. However, it is clear that the growth in UPI is coming at the expense of wallet transactions.

UPI vs Wallets



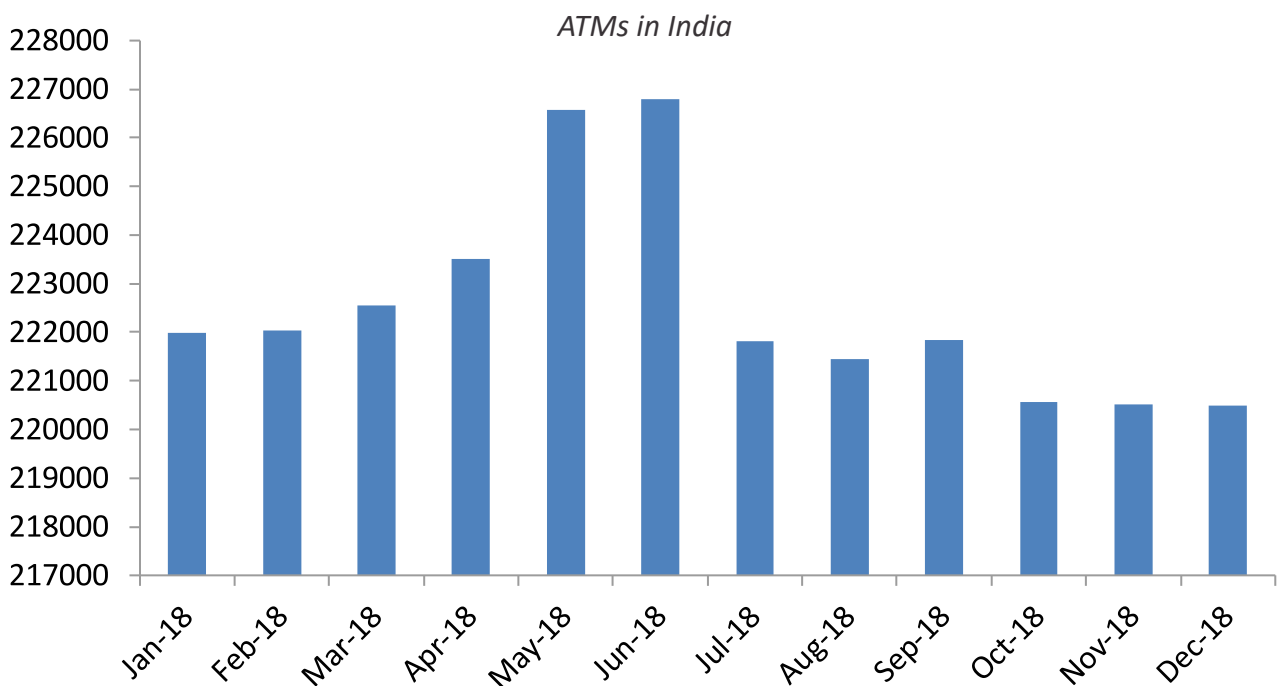
Source: Reserve Bank of India and NPCI

While the report primarily focuses on digital payments, it is worth looking at ATM data because cash withdrawals indicate how much cash is still entrenched in the economy.

The ATM business is certainly not a growing business. Interchange charges, which one pays to use the ATM of another bank, have remained at INR 15 per cash transaction for past five years and the number of transactions per ATM, which determines the revenue earned from interchange charges, have also not risen.

We have witnessed a decline in the number of ATMs primarily due to branch rationalisation by a few public sector banks, high transaction costs, high cost for setting up an ATM and the increasing use of electronic means of payments. Since digital transactions, POS transactions and m-wallet transactions shot through the roof immediately after demonetisation owing to low availability of cash, banks have turned their efforts away from installing more ATMs and have been developing their own mobile solutions.

The number of ATMs decreased from 0.22 million in 2017 to 0.2 million in December 2018. However, cash withdrawals has bucked the trend of reducing ATMs; in 2018, cash withdrawals stood at INR 32.69 trillion, a rise of 21.2% over 2017.



Source: Reserve Bank of India

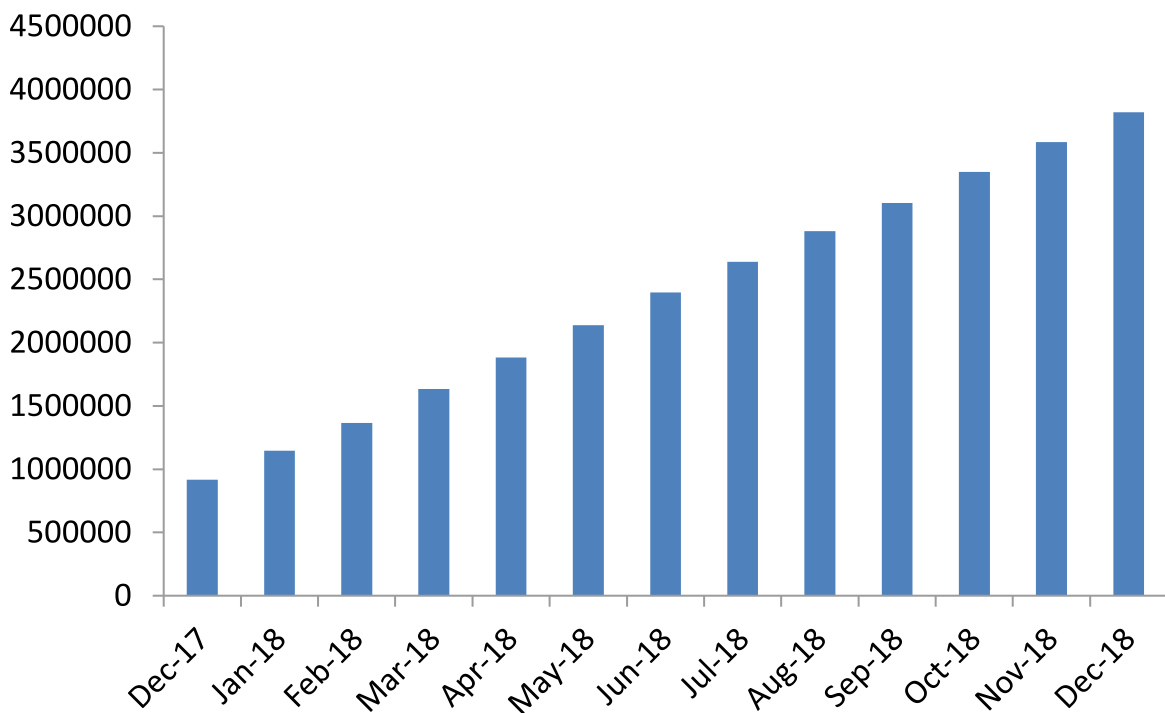
In November 2018, the ATM industry body said that the recently mandated compliance costs by the RBI, the increasing cost and the low interchange fee could hike the costs by 50% and in turn, force closure of approximately 100,000 off-site and a little over 15,000 white-label ATMs, or 50 percent of the ATMs by March 2019. It remains to be seen if such a drastic reduction will happen.

NETC has been developed to meet the electronic tolling requirements of India offering an interoperable nationwide toll payment solution that allows a tag holder to use their FASTag device as a payment mode to make the toll payments directly from their linked FASTag wallet account. The FASTag program is presently operational at 400 plus toll plazas across national and state highways but is growing rapidly.

NETC transactions in 2018 stood at 221 million, a jump of 110% over 2017 and the value of transactions was INR 51.5 billion, an increase of 79.7% over 2017.

The most astonishing fact is that 2018 started with the tag issuance base of 0.9 million and jumped manifold to end the year with 3.8 million tags; the government mandate that all new 4-wheelers need to be fitted with FASTags pushed this number. However, the key number to follow is the transactions volume and value and these indicate sustained consumer acceptance.

Tag Issuance in 2018



Source: NPCI

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