DIGITAL TRANSFORMATION IN INDUSTRY & FINANCIAL SECTOR

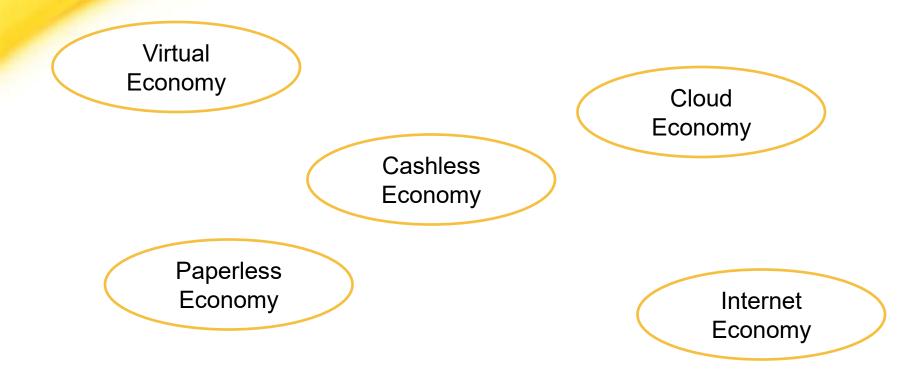
Knowledge Series on Banking, Pension & Insurance

Venue: ICAI Tower, 'G' Block, Opp. MCA Club, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051.

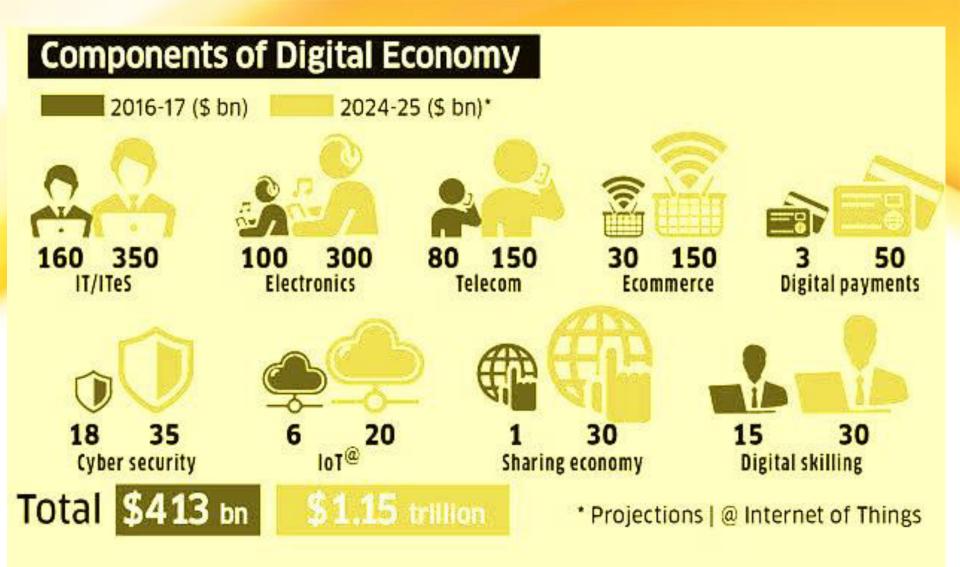


TRANSFORMATION OF RETAIL AND BANKING SECTORS

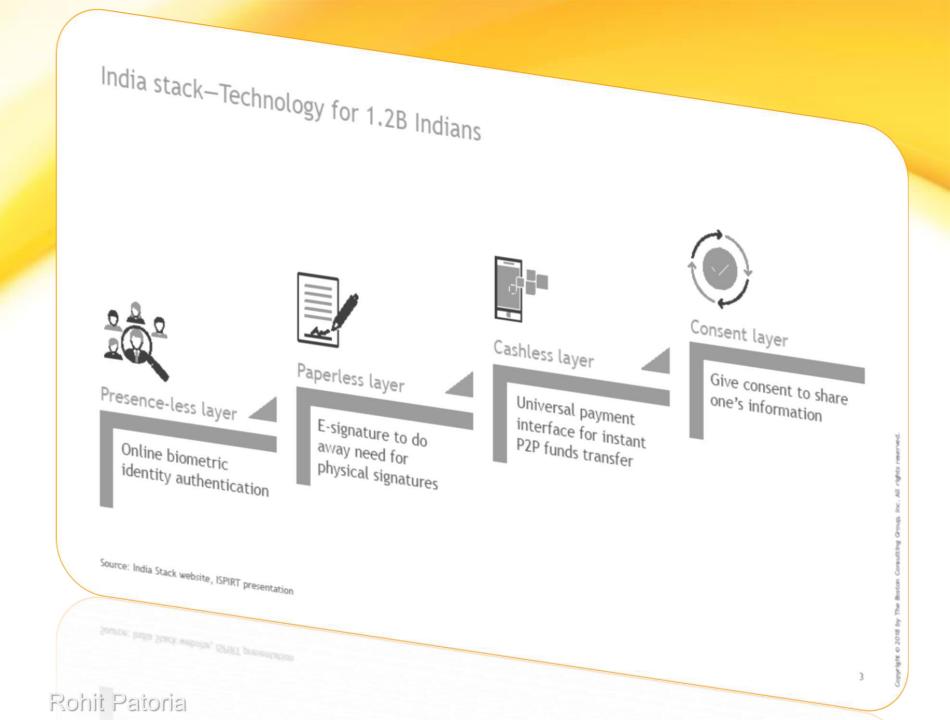
The "digital economy" is a term for all of those economic processes, transactions, interactions and activities that are based on digital technologies.

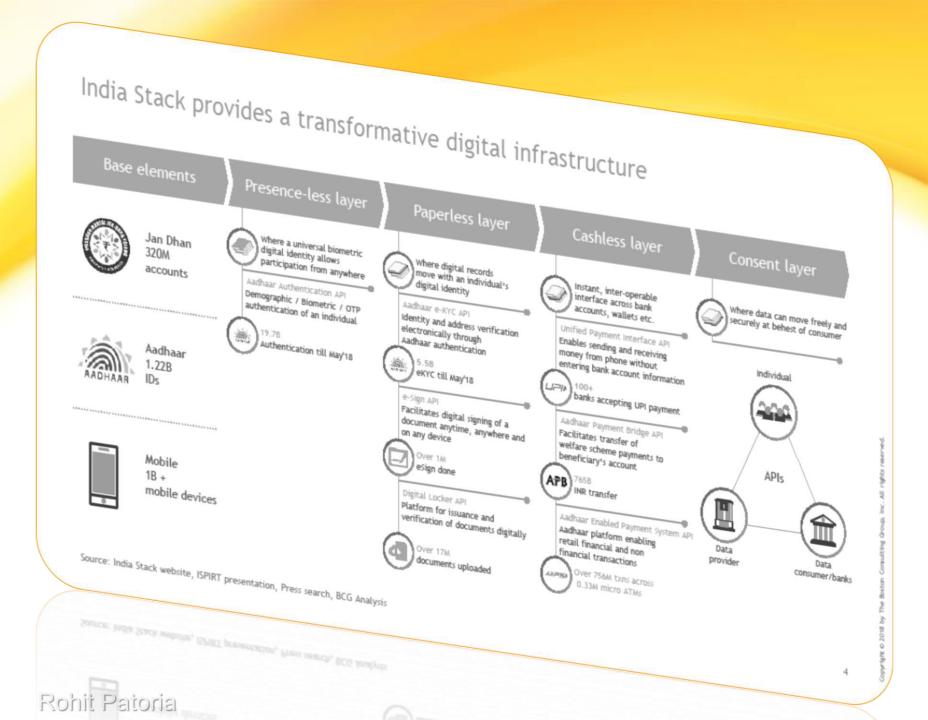


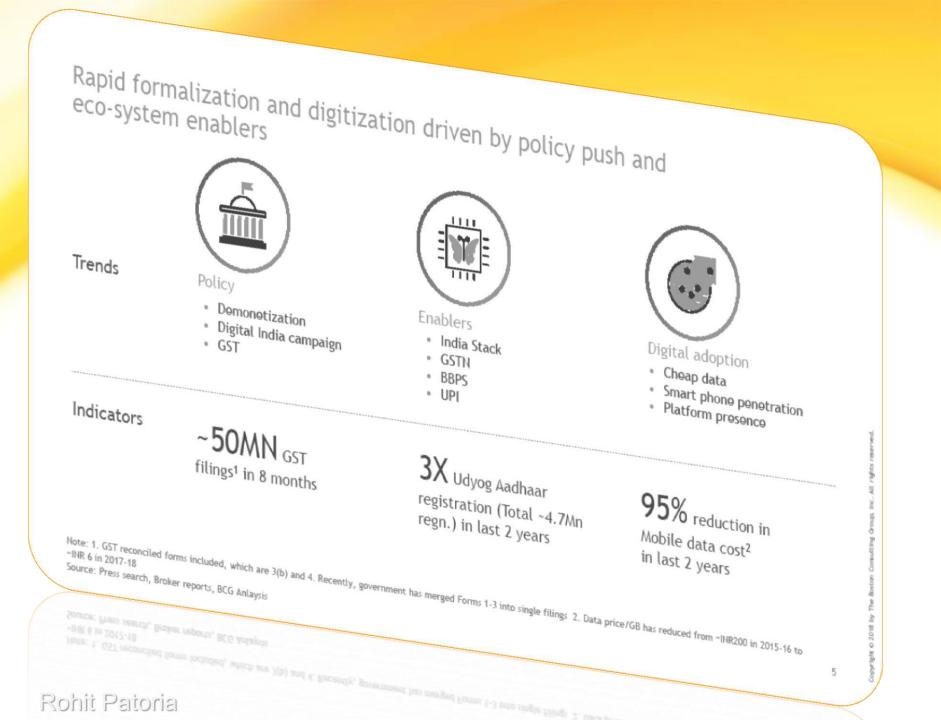
"Faceless, Paperless, Cashless"

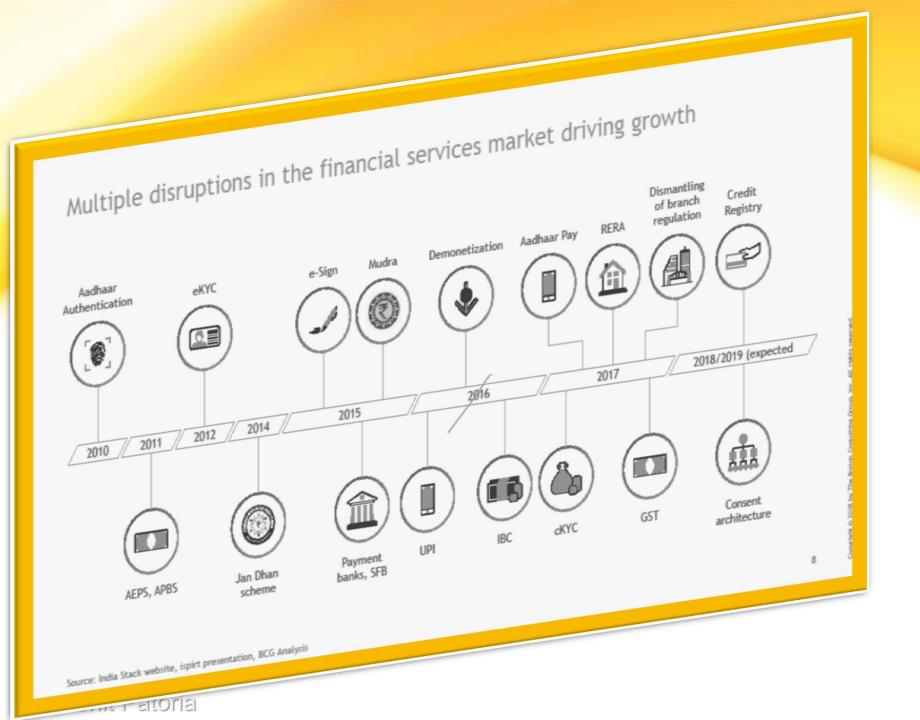


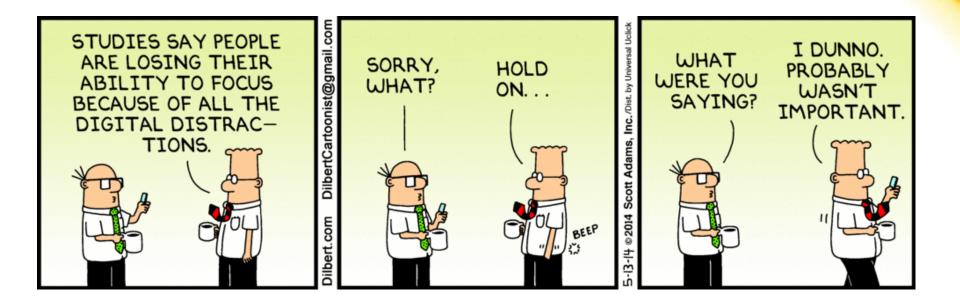
https://economictimes.indiatimes.com/news/economy/indicators/indias-way-to-1-trillion-digital-economy











DIGITAL EVOLUTION

	Pre-digital era	Digital era	Post-digital era
Organization structure	Highly centralized	Semi-decentralized	Highly decentralized
Decision making process	Management driven	Management driven, with customer input	In collaboration with the customer
Customers	Lack information	More informed	Highly informed
Role of technology	Support function	Strategic function	Business enabler
Disruptive		Internet. mobility. social	Artificial intelligence,



ROAD TO DIGITAL ECONOMY ESSENTIALLY STARTS WITH DIGITAL PAYMENTS

.....Ever-changing landscape

Fewer industries have evolved more over the past few years than the Digital Payment industry.



MEITY - MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY

Ministry of Electronics and Information Technology (MeitY), Government of India envisages Paperless, Cashless and Faceless services across the country, especially in rural and remote parts of India.

With an aim to promote Digital Payments and converting India to a less-cash society, a large number of policy and implementation initiatives are being taken.

WHAT IS DIGITAL PAYMENT?

DIGITAL PAYMENT IS A WAY OF PAYMENT WHICH IS MADE THROUGH DIGITAL MODES.

PAYER AND PAYEE BOTH USE DIGITAL MODES TO **SEND AND RECEIVE MONEY**.

ALSO CALLED ELECTRONIC PAYMENT.

NO HARD CASH IS INVOLVED.

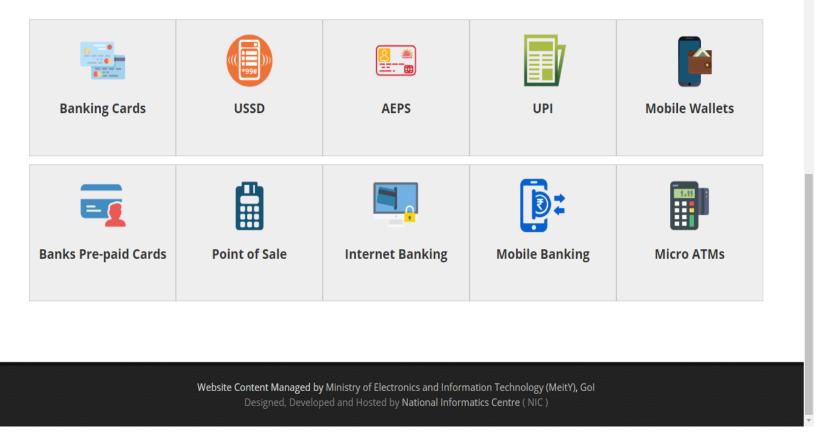
ALL THE TRANSACTIONS ARE **COMPLETED ONLINE**.

IT IS AN **INSTANT AND CONVENIENT WAY** TO MAKE PAYMENTS.

DIGITAL PAYMENT METHODS

As part of promoting cashless transactions and converting India into less-cash society, various modes of digital payments are available.

These mode are:





BCAS : DIGITAL PAYMENT METHODS VIDEO

DIGITAL PAYMENT TYPES

Different types of online financial transactions are:

National Electronic Fund Transfer (NEFT)

DIGITAL PAYMENT TYPES A nation-wide payment system facilitating one-to-one funds transfer

Real Time Gross Settlement (RTGS)

RTGS is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting).

Electronic Clearing System (ECS)

ECS is an alternative method for effecting payment transactions in respect of the utility-billpayments insurance premia, card payments and loan repayments, etc., which would obviate the need for issuing and handling paper instruments.

Immediate Payment Service (IMPS)

IMPS offers an instant, 24X7, interbank electronic fund transfer service through mobile phones.

IMPS is an emphatic tool to transfer money instantly within banks across India through mobile, internet and ATM which is not only safe but also economical both in financial and non-financial perspectives.

India's Journey to Digital Country



Demon effect.....

digital transactions have grown considerably.

- □ disruptions in the digital space
- □revolutionized the way we manage our finances



Imade contactless and cashless transactions the preferred choice

□smartphone has become the most sought after all-in-one device offering top-notch secure payments options:

#digital wallets,

#quick response (QR) codes

near field communication (NFC) technology

sound wave systems

#virtual cards,

#unified payment interface (UPI)

#Aadhaar Pay

Along with the growing usage of digital wallet in the past one year, the number of ATM transactions have also risen, showing the co-existence of cash and digital in the Indian economy.

RECENT DEVELOPMENTS IN DIGITAL PAYMENTS

In the last two years, the **payments and fintech ecosystem** in India has been growing rapidly

According to the **EY Fintech Adoption Index 2017**. The index, which denotes fintech users as a percentage of the digitally active population, ranks **China first (69%) and India second (52%)** in the list that comprises 20 countries. India's percentage is much higher than the **world average at 33%**.

Over the last couple of years, banks have launched payment apps such as Ping Pay (Axis Bank), Buddy (State Bank of India) and PayZapp (HDFC Bank). Some of them now also provide prepaid cards and small credit products.

Till 2016, most of the payment apps were working on consumer features but now the focus has shifted to (wider) acceptance.

RECENT DEVELOPMENTS IN DIGITAL PAYMENTS

INTERNET

Two years earlier, only 40-50% of mobile owners used the internet on their handsets since data was expensive.

Now internet on the mobile has become much cheaper, and the internet is no more a luxury but a basic need.

<u>UPI</u>

UPI has clearly emerged as a "game changer" for the payments industry.

A fundamental change in the payments ecosystem.

While wallets were popular, UPI gives direct access to the source of funds.

UPI allowed to go beyond wallets,

RECENT DEVELOPMENTS IN DIGITAL PAYMENTS

Money is now moving as quickly as a WhatsApp message.

There is innovation in gateways which has now *reduced transaction failures*.

E-commerce shift

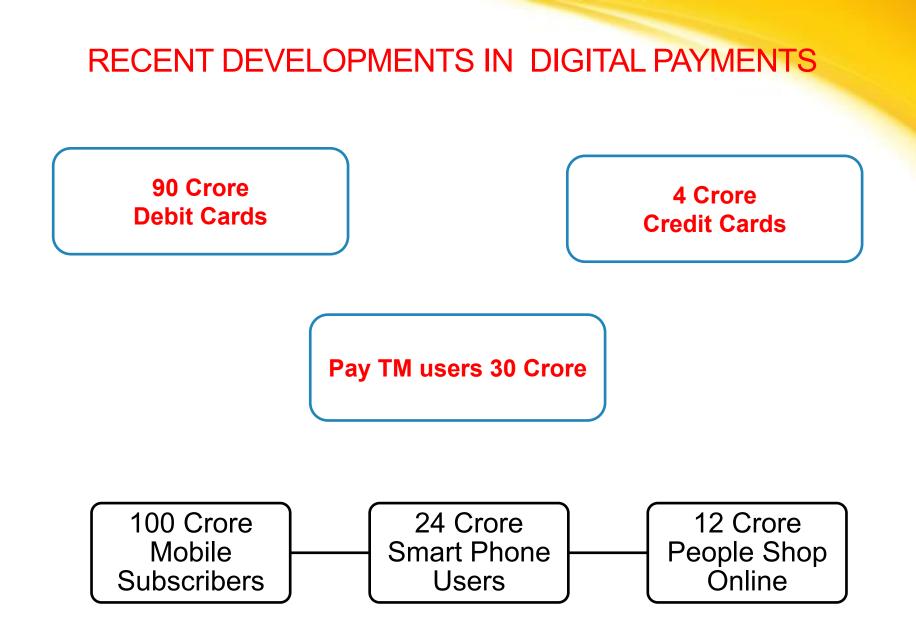
As digital adoption increased, e-commerce also saw the shift.

E-commerce which grew on the cash-on-delivery model, now postdemonetization increased acceptance of alternative payment channels.

For e-commerce companies UPI is likely to be the next wave for online payments.

Google, Samsung and WhatsApp

And it is not just the payments companies and financial institutions that are interested in payments. It is interesting to see Google, Samsung and WhatsApp entering the payments space.



STATISTICS OF GROWTH



STATISTICS OF GROWTH Journey of Digital Payments January 2018.

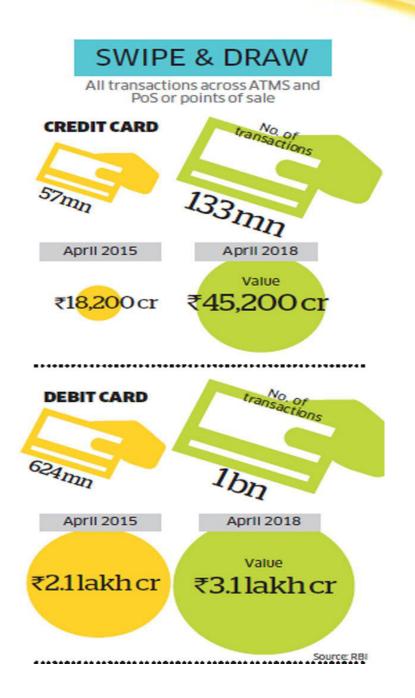
The total transaction value surged to \$2 Tn (INR 131.95 Cr) in January 2018.

The adoption of prepaid payment instruments (PPIs) like digital wallets has also been speeding up as more and more customers are coming under the umbrella of digital inclusion.

Payments Through Debit/Credit Cards On The Rise

Payments via National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS) also reportedly 1% and 2.4% jumps, respectively.

Much of this growth has been the result of the government's recent announcement to bear merchant discount rate (MDR) on transactions via debit cards, BHIM UPI and Aadhar-enabled payments system (AEPS), for the next two years.



Growth Trajectory

RTGS and NEFT volumes increased

Future of Digital Payments Volume of mobile banking transactions has increased nearly seven-fold

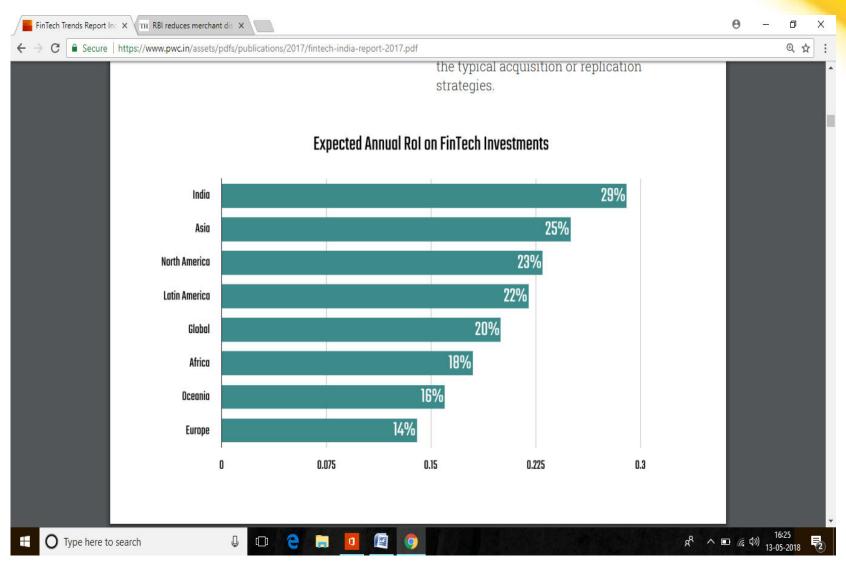
Card transactions have also grown significantly at both ATMs as well as at the Point-of-Sale (POS) with the growth in debit card usage at POS picking up significantly.

The growth in volume and value of transactions using prepaid payment instruments (PPIs) issued by banks and authorised nonbank entities has also been significant.

The volume and value in Immediate Payment Service (IMPS) has also grown significantly with the development of the IMPS as a multichannel system providing various options to customers to originate transactions.

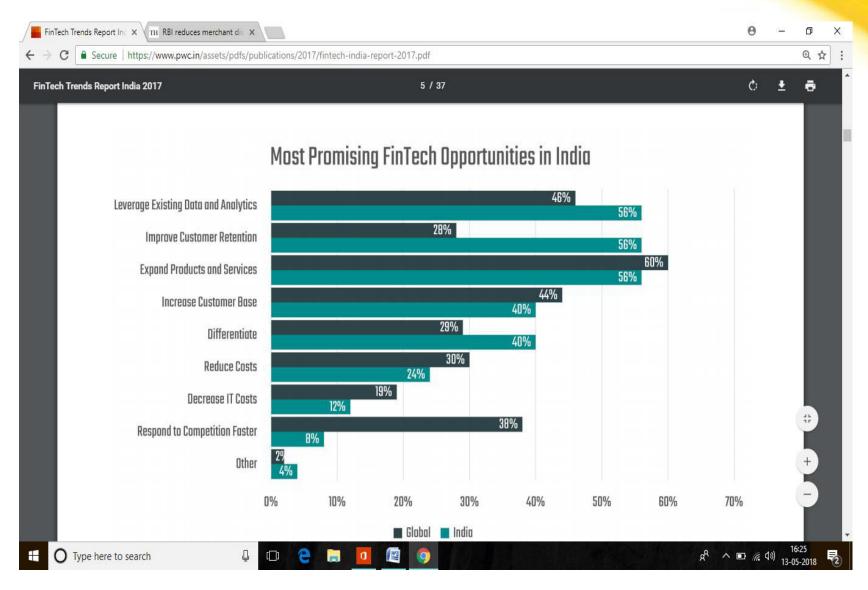
Cheque payments, on the other hand, are showing a declining trend in terms of volume as well as value between 2013 and 2016.

GROWTH OF FINTECH



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GROWTH OF FINTECH





FUTURE OF DIGITAL PAYMENTS

Banking 2020 - Technology Disruption in Banking - YouTube (360p)

RBI : PAYMENT AND SETTLEMENT SYSTEMS IN INDIA: VISION-2018

Vision Statement

Building best of class payment and settlement systems for a 'less-cash' India through responsive regulation, robust infrastructure, effective supervision and customer centricity. RBI : PAYMENT AND SETTLEMENT Future of Digital Payments

The broad contours of Vision-2018 revolve around <u>the 5</u> <u>Cs</u>:

□ **Coverage** – by enabling wider access to a variety of electronic payment services

□ **Convenience** – by enhancing user experience through ease of use and of products and processes

□ **Confidence** – by promoting integrity of systems, security of operations and customer protection

□ **Convergence** – by ensuring interoperability across service providers

□ **Cost** – by making services cost effective for users as well as service providers

Vision-2018 focuses on **four strategic initiatives**

- 1. responsive regulation,
- 2. robust infrastructure,
- 3. effective supervision and
- 4. customer centricity.

Future of Digital Payments

RBI : PAYMENT AND SETTLEMENT "Uture of Digital Payments

.Vision2018 is expected to result in:

- 1. Continued decrease in the share of paper-based clearing instruments;
- Consistent growth in individual segments of retail electronic payment 2 systems viz. NEFT, IMPS, Card transactions, mobile banking, etc.;
- Increase in registered customer base for mobile banking; 3.
- 4. Significant growth in acceptance infrastructure; and
- 5. Accelerated use of Aadhaar in payment systems

5 things will influence the payments arena in coming years.

- I. credit will move to alternative lending platforms.
- II. the line between social commerce and fast commerce will get blurred.
- III. social media and payments will get merged.
- IV. big data will be used exponentially.
- V. the use of QR code will see an interesting twist (it has seen uptake in China)

Digital payments are expected to grow from 5% of GDP now to 20% of GDP in the next 10 years.

This will also lead to growth of-

- small-ticket loans,
- instant point-of-sale credit,
- pay-per-day insurance and
- micro-investment products.

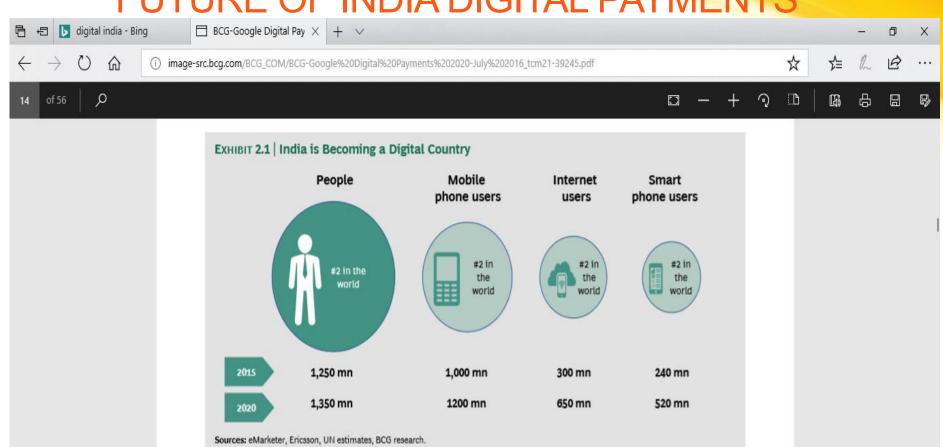
Such sachet-sized products will be available instantly on consumers' mobiles with negligible distribution costs,

Poised to reach **\$500 Bn by 2020** according to a <u>report</u> by Google and Boston Consulting Group, the digital payments segment has transformed into a behemoth in the last few years.

As per the report, **cashless transactions in the consumer payments segment is expected to double** to 40% in the next three years.

Given the sector's immense potential, a number of global players including <u>Google</u>, Amazon, <u>PayPal</u>, <u>WhatsApp</u> and <u>Uber</u> have already made their foray into the Indian digital payments space.

FUTURE OF INDIA DIGITAL PAYMENTS



12 | DIGITAL PAYMENTS 2020

FUTURE OF INDIA DIGITAL PAYMENTS

India digital payments to grow to US\$1 trillion by 2023 30% 3500 Cash 3000 25% Cards Digital 2500 - Share of digital (%) (RHS) 20% US\$ bn 2000 From US\$200 bn today - 15% to US\$1 tn in 2023 1500 - 10% 1000 - 5% 500 0% E115 0 FY13 122 and ETHO ETH'S ETHONE ETHONE ETALE ETALE ETALE Source: RBI, CMIE, Credit Suisse estimates © DW

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CASE STUDIES

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UPI – A SUCCESS STORY

Unified Payments Interface (UPI) developed by NPCI (Launched in August 2016 by RBI) — a digital payments system that allows users to transfer money or make payments in real time using mobile apps

It is rapidly causing Indians to drop their obsession with cash.

UPI transactions have already reached half the value of debit and credit cards swiped at stores

The UPI was designed to help simplify peer-to-peer transactions.

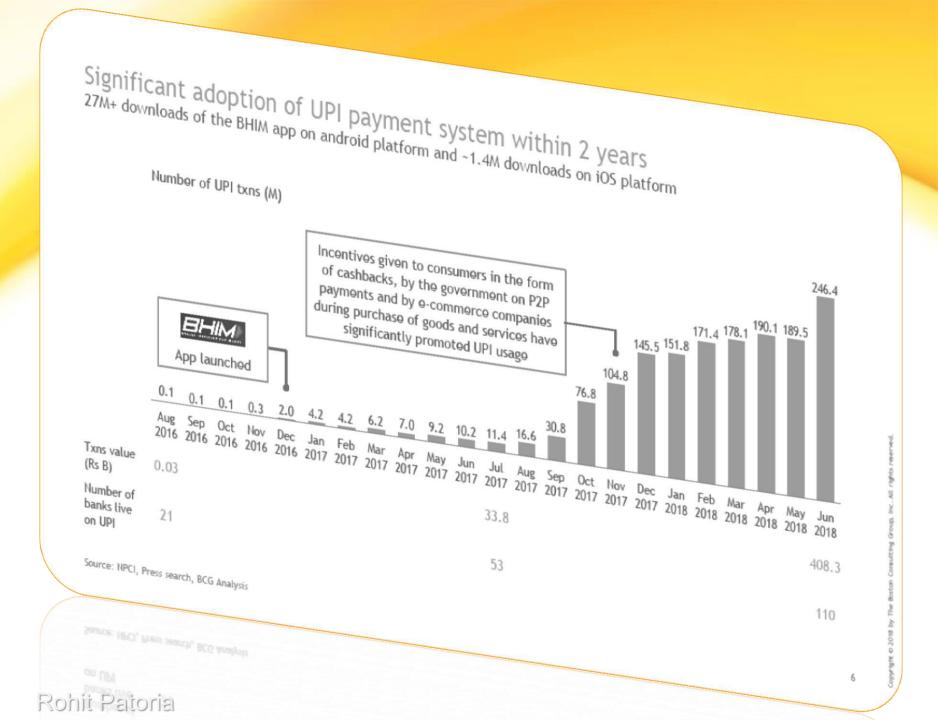
Adopted by 29 banks at the time of announcement, currently, there are 71 banks that allow transactions via UPI.

UPI is a one-touch transaction for transferring money between any two parties using a 'unique virtual address' on a Smartphone.

The UPI-driven payments follow the IMPS (Immediate Payment Service) structure of payments.

Since its launch, the technology has been adopted by various banks and other private fintech companies.

- UPI A SUCCESS STORY of $D_{i_{git_{al}}}$ More and more businesses are integrating UPI into the the second seco apps
- □Uber and Ola
- □ Jet Airways
- Paytm
- Whatsapp
- All are piloting a payments service that uses UPI.



Future of Digital Payments UPI – A DISRUPTOR?

Scant availability of swiping machines across India

There are just 1,900 swiping machines per million people compared with nearly 16,600 in China.

In contrast, there is one smartphone on every four **Indians** — a number that is expected to grow as internet penetration rises.

This puts UPI in a better position to capture market share as more and more Indians drop their obsession with cash.

Future of Digital Payments Cash still accounts for some 70 percent of the country's total transactions by value.

UPI and mobile-based transactions could lead to some shift away from debit card usage as they are used more for low value transactions (compared to credit cards),

A large share of the growth in UPI volumes is likely to be driven by the shift from cash to digital.

Lower set-up costs for UPI compared to card swiping machines is further incentivizing banks to bring more and more businesses onboard UPI.

Today, less than 20 percent of UPI transactions are person to business (P2B).

BANKING INDUSTRY

Mobile banking has emerged as one of the most innovative products in the financial services industry.

Driving FINANCIAL INCLUSION where it needs to reach the vast unbanked population.

Mobile devices play a vital role not only in increasing financial inclusion but also in spreading FINANCIAL LITERACY in rural areas.

Mobility is one of the most important technologies for banking sector and will have an immediate impact.

BANKING INDUSTRY

Banks are **leveraging social networks to offer** bank account **apps**, money personality apps, deal-of-the-day offers, offers on banking products/services and a mechanism for customers to write back to these banks.

Data from various social media platforms is also being integrated at the backend in a **CRM module** to capture customer queries and keep track of all comments about the bank.

Banking service providers leverage social media campaign to offer a unique shopping experience during the festive period by partnering with other **e-commerce vendors**.

Banks install **digital kiosk** which uses data from the social profiles of customers and uses it to serve customers

RETAIL INDUSTRY

To combine the best of virtual and physical retail shopping experiences - Retailers are strategically deploying the SMAC across key business processes.

Customer's mobile device can signal store management while they're shopping.

Customers can compare products, get information and redeem targeted offers from the Cloud while in store.

Analytics can help retailers predict buying decisions of shoppers.

Offline retail

Retail is a \$2 trillion opportunity

e-commerce is less than 1-2% of retail

India has close to 40 million merchants.

Need to reach out to the offline merchants

Merchants will be the biggest assets we create

MORE RECENT DEVELOPMENTS

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Paytm introduces automatic recurring payments

Temasek plans to acquire stake in Pine Labs in \$400 million major payment solution providers

UPI 2.0 sets to make debut with focus on merchant and recurring payments

Paytm Mall to invest \$30 mn in rolling out PoS devices across stores this year

Innoviti Payment Solutions raised Rs120 crore from SBI-FMO and Bessemer Venture Partners.

Ezetap raised \$16 million from JS Capital Management Llc, a US-based venture capital fund.

MSwipe announced the closing of its Series D round of above \$40 million (Rs258 crore

The PoS devices will help shopkeepers maintain a real-time inventory database and track sales.

Walmart has wrapped up Flipkart acquisition for \$16 billion, a valuation of over \$20 billion

•The world's biggest ecommerce deal

- •Walmart will own around 77 %
- •The largest buyout for the US firm.

Walmart India looks to scale up kirana store business after Flipkart deal

•Walmart India has been piloting Mera Kirana over the past four years and now wants to make it part of its mainstream business

•Walmart India is planning to scale up its kirana store programme called Mera Kirana that helps small family-owned grocery stores modernise

UPI 2.0 sets to make debut with focus on merchant and recurring payments



Rohit Patoria

□90 % of UPI-powered transactions is peer to peer with a little usage for merchant payments.

□ This will change with launch of UPI 2.0.

It promises to ease payment between individuals and businesses.

□UPI 2.0 would empower people to set up a mandate for recurring payments such as monthly utility bills, insurance premiums, mutual funds and monthly rents amongst several others

Linking your UPI account for paying EMIs or premium would be a onetime affair.

□Facilitate international inward settlement. It will fasten and simplify the process of sending money from foreign soil.

□UPI 2.0 would leverage VPA that essentially allows users to transfer money without entering the account number and IFSC code, amongst others.

For merchants, setting up a UPI-based payment is economical and faster than the point of sales (PoS) terminal.

□With the launch of Google Tez and Paytm, UPI ecosystem has recorded hockey stick growth curve in 2017.

Currently, WhatsApp UPI is in closed beta stage and is slated to spurt the usages once the feature gets open to public.

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□Of late, UPI has been eating up the wallet business of companies including Paytm, MobiKwik, and FreeCharge.

With UPI 2.0, NPCI seems to cannibalise digital wallet further.

□At present, Paytm has a perfect use case with Uber. However, the ride-hailing giant is also expected to launch its own UPI-based payment feature that would eventually add more woes to Paytm wallet business.

ADVANTAGES OF DIGITAL PAYMENTS

- **Easy and convenient**
- **•Pay or send money from anywhere**
- **ODiscounts from taxes**
- \circ Low cost
- **○Saves time**
- •Convenience
- \circ Low risk
- **OUser-friendly**
- **•Controlling expenses**
- **○Discounts**

WHY DIGITAL PAYMENTS ARE CRUCIAL

o crucial in **developing 'smart' cities**.

\circ eliminates the hidden costs of cash payments

 $_{\odot}$ makes the process more cost-effective for both individuals and governments.

 traceable electronic payments lead to more transparency and compliance, which reduces corruption.

- $_{\odot}$ increased use is economical in terms of the time spent making transactions by consumers and businesses.
- can reduce cash-related crime, boost business sales, and increase tax revenues for the government.
- There are many challenges before the full benefits of digitalisation can be realized - Limited digital literacy and a lack of adequate infrastructure are major among them
- $_{\odot}$ No benefit from **financial access** unless handling bank accounts is cheaper and easier to use than its alternatives.

Drawbacks of Digital Payments

Every coin has two sides so as the digital payments. Despite many advantages, digital payments have a few drawbacks also.

Difficult for a non-technical person: As most of the digital payment modes are based on mobile phone, the internet and cards. These modes are somewhat difficult for non-technical persons such as farmers, workers etc.

The risk of data theft: There is a big risk of data theft associated with the digital payment. Hackers can hack the servers of the bank or the E-Wallet you are using and easily get your personal information. They can use this information to steal money from your account.

Overspending: You keep limited cash in your physical wallet. Hence, you think twice before buying anything. But if you use digital payment modes, you have all your money with you always. This can result in overspending .



Circle.mp4

Rohit Patoria

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Rohit Patoria

List of Top Mobile Wallets & No. Of Downloads (based on Google Play)

Mobile wallets	Number of downloads		
Paytm	50 Million 10 Million		
FreeCharge			
Mobikwik	10 Million		
PhonePe	10 Million		
BHIM	10 million		
Google's Tez	10 million		
SBI buddy	10 million		
ICICI Pockets	5 million		
HDFC PayZapp	5 million		
Oxigen	5 million		



Source: BCG



Though online and cashless modes of transactions are getting popular, there still exist **challenges around data security**. With the recent news around data leaks and RBI regulation asking payment system operators to store their data in India, the data privacy and security will be one of the biggest challenges for the industry.

GLOBAL TECH GIANTS – EYEING INDIA!

💿 India's digital payment ur 🗙

TH RBI reduces merchant dis X

🛈 www.dw.com/en/indias-digital-payment-upstarts-give-visa-mastercard-run-for-their-money/a-43270025

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WILL IT IMPACT GIANTS?

Global card companies Visa and Mastercard are struggling for consumers and market share over India's homegrown payment channels.

Has swiping a card become outdated in the world's most innovative payments market?

Mastercard and Visa, which generate revenue by facilitating credit- and debit-card transactions, are turning their attention to incorporating mobile-centric features.

They have partnered with India's NPCI to launch **Bharat QR**, a QR code-based payment method that enables people to make cashless purchases by simply moving their smartphone's camera over a QR code at a shop.

Mastercard and Visa cards can also be integrated onto **Samsung Pay app in India**. The app allows users to make payments by placing their smartphone near a card swiping machine.

Fund-raising by payment platforms

Company	Investors	Year	Amount (in \$ million)
Ezetap	Social Capital	2015	25
Innoviti Payment Solutions	SBI-FMO, Bessemer Venture Partners	2017	18
Mswipe Technologies	B Capital Group, DCG Consumer Partners	2017	40
Pine Labs	Actis Capital, Altimeter Capital	2018	82
		S.	Source: Companies
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DIGITAL ECONOMY - ADVANTAGES

✓ PAVES THE WAY TO E-GOVERNANCE

✓INCREASE IN REVENUES

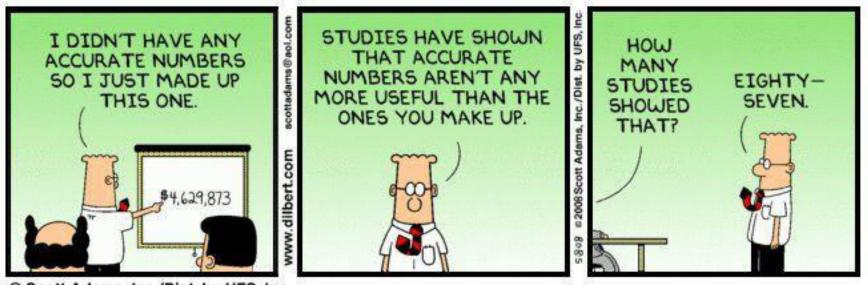
✓ REMOVAL OF BLACK ECONOMY

✓ EMPOWERMENT TO PEOPLE

✓ CREATION OF NEW JOBS

Rohit Patoria

STATISTICS OF GROWTH



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