Towards Cashless Economy
OVERVIEW

• What is Cashless Economy
• Cash less Payment Methods
• How to secure your cashless transactions
What is cash less economy?

“A cashless economy is one in which all the transactions are done using cards or digital means. The circulation of physical currency is minimal”
Benefits of cashless economy

- Reduced instances of tax avoidance because it is financial institutions based economy where transaction trails are left.
- It will curb generation of black money
- Will reduce real estate prices because of curbs on black money as most of black money is invested in Real estate prices which inflates the prices of Real estate markets
- In Financial year 2015, RBI spent Rs 27 billion on just the activity of currency issuance and management. This could be avoided if we become cashless society.
- There will be efficiency gains as transaction costs across the economy should also come down.
- 1 in 7 notes is supposed to be fake, which has a huge negative impact on economy, by going cashless, that can be avoided.
- Reduced costs of operating ATMs.
Where do India Stand?

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Noncash Payments' Share Of Total Value Of Consumer Payments</th>
<th>% Of Population With A Debit Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Belgium</td>
<td>93</td>
<td>86</td>
</tr>
<tr>
<td>2</td>
<td>France</td>
<td>92</td>
<td>69</td>
</tr>
<tr>
<td>3</td>
<td>Canada</td>
<td>90</td>
<td>88</td>
</tr>
<tr>
<td>4</td>
<td>United Kingdom</td>
<td>89</td>
<td>88</td>
</tr>
<tr>
<td>5</td>
<td>Sweden</td>
<td>89</td>
<td>96</td>
</tr>
<tr>
<td>6</td>
<td>Australia</td>
<td>86</td>
<td>79</td>
</tr>
<tr>
<td>7</td>
<td>The Netherlands</td>
<td>85</td>
<td>98</td>
</tr>
<tr>
<td>8</td>
<td>United States</td>
<td>80</td>
<td>72</td>
</tr>
<tr>
<td>9</td>
<td>Germany</td>
<td>76</td>
<td>88</td>
</tr>
<tr>
<td>10</td>
<td>South Korea</td>
<td>70</td>
<td>58</td>
</tr>
</tbody>
</table>

India has one of the highest cash to gross domestic product ratios in the world. 12.5% of world
November 1 2014

- ATM use over 5 times per month will attract fee of Rs 20.
- Besides, the number of free transactions at ATMs (Automated Teller Machines) of non-home banks has been cut to three times a month from five times.

Why?
Why only 5%:

- Availability of internet connection and financial literacy.
- Unless people start operating bank accounts cashless economy is not possible.
- There is also vested interest in not moving towards cashless economy.
- India is dominated by small retailers. They don’t have enough resources to invest in electronic payment infrastructure.
- Most card and cash users fear that they will be charged more if they use cards.
- Security.
What are the Dis-Advantages

• Fraud Transaction
• Banks will be more powerful.
Internet Banking

1. Login
2. Add Beneficiary
3. Transfer amount
Flow of Money In net banking
What else?

- Using Internet banking services, you can do the following normal banking transactions online:
  - **Funds transfer between own accounts.**
  - Third party transfers to accounts maintained at any branch of SBI
  - Group Transfers to accounts in State Bank Group
  - Inter Bank Transfers to accounts with other Banks
  - Online standing instructions for periodical transfer for the above
  - Credit PPF accounts across branches
  - Request for Issue of Demand Draft
  - Request for opening of new accounts
  - Request for closure of Loan Accounts
  - Request for Issue of Cheque Book

- **Earn reward points for transactions through Internet Banking**
- Apart from these, the other salient value-added features available are:
  - Utility bill payments
  - Online Ticket Booking for travel by Road, Rail and Air
  - SBILIFE, LIC and other insurance premia payments
  - SBI and other Mutual funds Investments
  - SBI and other Credit Card dues payments
  - Tax Payment Income, Service, State Govt
  - Customs Duty Payment
  - Online Share Trading (eZ-trade@SBI)
  - Online Application for IPO
  - Fee Payment to select educational institutions including IITs and NITs
Online shopping with net-banking
The Payment Gateway

• A payment gateway facilitates a payment transaction by the transfer of information between a payment portal and the front end processor or acquiring bank.
Instamojo demo
Is an umbrella organization for all retail payments system in India. It was set up with the guidance and support of the Reserve Bank of India (RBI) and Indian Banks’ Association (IBA).
• is the largest network of shared ATMs in India
• The first ATM in India was set up in 1987 by HSBC Bank Mumbai
• 1997 Swadhan
• 2003 Caahs Tree
• 2004 NFS
• For Banks, Financial Institutions, Corporates and Government a web based solution to facilitate interbank, high volume, electronic transactions which are repetitive and periodic in nature.
• Can be used for making bulk transactions towards distribution of subsidies, dividends, interest, salary, pension etc.
• For bulk transactions towards collection of payments pertaining to telephone, electricity, water, loans, investments in mutual funds, insurance premium etc.
is a system that powers multiple bank accounts into a single mobile application (of any participating bank)

merging several banking features, seamless fund routing & merchant payments into one hood

It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience.

Immediate money transfer through mobile device round the clock 24*7 and 365 days.

Single mobile application for accessing different bank accounts

Single Click 2 Factor Authentication – Aligned with the Regulatory guidelines, yet provides for a very strong feature of seamless single click payment.

Virtual address of the customer for Pull & Push provides for incremental security with the customer not required to enter the details such as Card no, Account number; IFSC etc.

Bill Sharing with friends.

Best answer to Cash on Delivery hassle, running to an ATM or rendering exact amount.

Merchant Payment with Single Application or In-App Payments.

Scheduling PUSH and PULL Payments for various purposes.

Utility Bill Payments, Over the Counter Payments, Barcode (Scan and Pay) based payments.

Donations, Collections, Disbursements Scalable.

Raising Complaint from Mobile App directly.
Is an instant interbank electronic fund transfer service through mobile phones. It is also being extended through other channels such as ATM, Internet Banking, etc.

Registration for Remitter:
Register yourself with the mobile banking service of the bank.
Get Mobile Money Identifier (MMID) and MPIN from the bank
Download Software (Application) for mobile banking (ensure the compatibility of mobile with the application) or use the SMS facility in your mobile if your bank provides IMPS on SMS

Registration for Beneficiary:
Link your mobile number to the account in the respective bank.
Get Mobile Money Identifier (MMID) from the bank
One of the innovative payment service launched by NPCI includes *99# service, which works on Unstructured Supplementary Service Data (USSD) channel.

*99# service has been launched to take the banking services to every common man across the country
The four Aadhaar enabled basic types of banking transactions are as follows:-

- Balance Enquiry
- Cash Withdrawal
- Cash Deposit
- Aadhaar to Aadhaar Funds Transfer

The only inputs required for a customer to do a transaction under this scenario are:-

- IIN (Identifying the Bank to which the customer is associated)
- Aadhaar Number
- Fingerprint captured during their enrollment
• RuPay, a new card payment scheme launched by the National Payments Corporation of India (NPCI), has been conceived to fulfill RBI’s vision to offer a domestic, open-loop, multilateral system which will allow all Indian banks and financial institutions in India to participate in electronic payments.
What’s Next?

- Bill payment is a major component of the retail payment transactions in India.
- These opportunities have been identified by various organizations that have aggregated various billers to provide a single platform to make all these payments.
Plastic money is a term that is used predominantly in reference to the hard plastic cards we use every day in place of actual bank notes. They can come in many different forms such as cash cards, credit cards, debit cards, pre-paid cash cards and store cards.
# Plastic Money Variants

<table>
<thead>
<tr>
<th>Plastic Money Variants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit Card</td>
<td>A card allowing the holder to transfer money electronically from their bank account when making a purchase</td>
</tr>
<tr>
<td>Credit Card</td>
<td>A small plastic card issued by a bank, building society, etc., allowing the holder to purchase goods or services on credit. Cannot Withdraw money.</td>
</tr>
<tr>
<td>ATM Card / Cash Card</td>
<td>An <strong>ATM card</strong> is any payment <strong>card</strong> issued by a financial institution that enables a customer to access an automated teller machine (<strong>ATM</strong>) in order to perform transactions such as deposits, cash withdrawals, obtaining account information, etc.</td>
</tr>
<tr>
<td>Gif Cards</td>
<td>Is a Pre-paid Card</td>
</tr>
</tbody>
</table>
Payment Process

The Payments Processing Chain

1. Consumer
2. Merchant
3. Acquirer/Processor (Merchant’s bank)
4. Payment brand
5. Issuer (Cardholder’s bank)
6. Merchant’s backend database
Payment Brands

[Logos of VISA, Maestro, MasterCard, and RuPay]
1. Logo or Symbol of a credit card Issuing Entity.

2. Credit Card Payment Processor’s Logo.

3. Hologram (3D Image)
   Check Digit or Checksum

4. An Embossed or Printed 16-digits Credit Card Number grouped in four sets with 4-digits in each set and follows an ISO/IEC 7812-1 card numbering system.

5. Expiration (Last) Date (Valid Thru) i.e. (Valid Until) Uses MM/YY date format.

6. Cardholder Name has first and last name of an individual OR registered name of a company / firm / organization / institution.

Individual Account Identifier Number
Issuer Identifier Number (IIN)
7. Embedded μChip
Major Industry Identifier (MII)
8. Issue Date (Valid From) MM/YY
Bank Identification Number (BIN) is 1st 4-digits of CC No. BIN is now replaced by IIN.
Track 1: Card number, holder name, expiration date.
Track 2: Card number, expiration date.
Track 3: Occasionally used by loyalty schemes.

Tracks:
1
2
3

Magnetic strip

Signature strip
Card Verification Value

Providing your CVV number to an online merchant proves that you actually have the physical credit or debit card - and helps to keep you safe while reducing fraud.
How to use your Debit card at POS

• Present your debit card to the merchant. ...
• Swipe your card through the point of sale machine. ...
• Enter the last digits of the debit card
• Enter the amount …
• Enter the pin
• Get the receipt
• Sign the receipt
PoS Terminal Types

- PSTN
- Desktop GPRS
- Portable GPRS
- Mobile PoS
- ECR Based Terminals
- NFC Enabled Terminal

How to Avail SBI POS

To avail the benefits of SBI Merchant Acquiring Services you need to have a:

- Valid business establishment with up and running activity
- Business that has been in existence for at least 6 months or more

You may contact at any branch of our over 15000 strong branch network or call exe:

- Merchant application form duly filled
- Identity proof
- Address proof
- Business Establish proof

Alternatively you can use Apply Now link on this Home Page.

Where the terminals will be used for both sales as well as Cash payment Transactions then bank will recover rental Applicableb for such cases which is as under:

<table>
<thead>
<tr>
<th>Description</th>
<th>Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) For PSTN Terminal (Landline with outgoing STD facility)</td>
<td>NO CHARGES</td>
</tr>
<tr>
<td>ii) Monthly Rental for desktop GPRS/Portable GPRS Terminals</td>
<td>DESKTOP GPRS</td>
</tr>
<tr>
<td>Monthly Rental UPTO 48 Months</td>
<td>220/- + Service Tax as applicable</td>
</tr>
<tr>
<td>From 49th Month</td>
<td>Actual SIM charges Only (presently Rs.45/- + Service Tax per Month)</td>
</tr>
</tbody>
</table>
How to use debit card for online shopping
Pay using ATM Cum debit card
Pay through card provider
Advantages of RuPay Card over other cards

• Processing Fee: Since every transaction through RuPay will take place within India, the banks will have to pay less service charge to the payment gateway as compared to others

• Faster transactions: Since processing would be down within India the transactions would be faster as compared to other cards.

• Quarterly Fee: In case of Visa and others banks have to pay a quarterly fee which won’t be required in case of RuPay.

• Member Banks: RuPay card is offered by public sector, select private banks, rural and cooperative banks

• No Entry fee for banks

• Less international acceptance

• No Credit card yet.
Which is safer? Debit card or Credit card
E-wallet

E-wallet is a type of electronic card which is used for transactions made online through a computer or a smartphone. Its utility is same as a credit or debit card.
• Paytm customers and merchants can send money and accept payments for free currently.
• Over 1.5Mn (15 lakh) offline merchants across India currently accept Paytm.
• Paytm Cash can also be used to pay for online recharges, utility bill payments, book movie tickets or travel among other things on the Paytm Website.
• Paytm is also accepted at hundreds of third party websites.
• In case you need cash, you can always transfer some money to your bank account instantly using the ‘Send Money to Bank’ option in the Paytm Passbook.
To use this service, as a first step, Paytm customers and merchants must set their 4 Digit Paytm PIN by calling 1800 1800 1234. They can then enter the recipient’s mobile number, amount and their Paytm PIN to successfully transfer the money from their Paytm wallet to another Paytm wallet.
Help your Neighbourhood Shops to start accepting Paytm

• WhatsApp Shop Name, Phone No. & Location to 91–81308–88197 and we will reach out to the shopkeeper
How to secure Your Online Transactions
Passwords

- Use a hard-to-guess password that contains upper and lower case letters, numbers and symbols.
  - Do not use the same user name and password for all online accounts.
  - Change passwords as often as possible, but at least every three months.
  - Do not share your passwords or user identification information.
Online shopping tips

• Always log out of bank, credit card, and merchant sites after you have completed your transaction.
• Do not allow your computer to store user names and passwords for merchant or banking websites.
• When setting up security questions for sites online, use false information unrelated to your personal information, and keep track of your answers.
Secure E-Commerce websites

- Use a reputable third-party pay service such as PayPal for online transactions whenever possible. These sites provide secure transactions and dispute resolution services.
- Secure online transactions should occur only on a website that begins with “https://.” Do not trust a vendor without the “S” after “http” at the start of the web address.
- Pay attention when visiting financial and sales websites. Authentic websites will post logos such as that for VeriSign. Users can click on the logo to verify the site identity before they begin shopping or completing banking transactions.
- Use only one credit card for online purchases in order to limit exposure to fraud and theft on all your cards. If possible, use a pre-paid debit card in place of a credit card.

Do not shop, pay bills, or access your bank or credit card websites using public Wi-Fi.
Anti-virus and Firewall

- Always use the most up-to-date version of a strong anti-virus and firewall security program.
- Download and apply updates from your virus and firewall programs when available, to ensure your program has the latest information about new scams and hacker tricks.
- Run virus scans regularly on your computer.
- Use an ad-blocking software program and a spyware detection program. Keep these programs updated and run scans often with them.
Personal information protection

• Do not post your full birth date on social networking sites such as Facebook. Do not post the birthdates of your children, spouse, or significant other.
• Any information you post online can be hacked and stolen, so try to keep this information to a minimum.

Use Virtual Keyboard

Recent attack on American by Indians.
What if any fraud occurred?

• All Banks must send sms to customer

• Zero Liability of the customer
  o IF the security architecture of bank is not able to protect the customer in following events
    • Fraud/ negligence on the part of the bank (irrespective of whether the loss/fraudulent transaction is reported by the customer or not)
    • Third party breach where the fault lies neither with the bank nor with the customer but lies elsewhere in the system, and the customer notifies the bank within three working days of receiving the communication from the bank regarding an unauthorized transaction.

• Limited Liability of a Customer
  o A customer shall be liable for the loss occurring due to fraudulent transactions in the following cases:
    • In cases involving negligence by a customer, such as where he has shared the payment credentials, the customer will bear the entire loss until he reports the unauthorised transaction to the bank. Any loss occurring after the reporting of the unauthorised transaction shall be borne by the bank.
    • In cases where the responsibility for the unauthorised electronic banking transaction lies neither with the bank nor with the customer but lies elsewhere in the system and when there is a delay (of four to seven working days) on the part of the customer in notifying the bank of such a transaction, the customer liability shall be limited to the transaction value or ₹ 5000/-, whichever is lower. Further, if the delay in reporting is beyond seven working days, the customer liability shall be determined as per bank’s Board approved
Offers by GOI

**Transactions Beginning**

- **Daily:** 15000 @ ₹1000 for 100 days
- **Weekly:** 7000+ with max prize of 1 lakh

**First Draw**

- **Digi-धन Vyapari Yojana**
  - **Weekly Awards:** 7000 with max award of ₹50,000

**Mega Awards**

- **(14.04.17)**
  - **for consumers**
    1. ₹1 Crore
    2. ₹50 Lakh
    3. ₹25 Lakh
  - **for merchants**
    1. ₹50 Lakh
    2. ₹25 Lakh
    3. ₹5 Lakh
Future of Commerce
Thank You!