

भारत में भुगतान और निपटान प्रणालियाँ  
Payment and Settlement Systems in India

विज़न-2018  
VISION-2018



भारतीय रिज़र्व बैंक  
भुगतान और निपटान प्रणाली विभाग

**RESERVE BANK OF INDIA**  
DEPARTMENT OF PAYMENT AND SETTLEMENT SYSTEMS

## 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**

1.1 The Vision-2018 for Payment and Settlement Systems in India reiterates the commitment of the Reserve Bank of India (the Bank) to encourage greater use of electronic payments by all sections of society so as to achieve a “less-cash” society. The objective is to facilitate provision of a payment system for the future that combines the much-valued attributes of safety, security and universal reach with technological solutions which enable faster processing, enhanced convenience, and the extraction and use of valuable information that accompanies payments.

1.2 Since 2012-13, all segments of electronic payments, particularly retail electronic payments, have shown healthy growth both in terms of volume and value of usage. For example, RTGS and NEFT volumes increased almost threefold between 2013 and 2016 reflecting greater adoption of the system by all segments of users. Similarly, with increasing number of banks offering mobile banking services and driven by the growth in e-commerce and use of mobile payment applications, the volume of mobile banking transactions has increased nearly seven-fold and the value of transactions has shown a steep rise. 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 non-bank 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 multi-channel 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.

1.3 The broad contours of Vision-2018 revolve around the 5 Cs:

- 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

- 1.4 Vision-2018 focuses on four strategic initiatives viz., responsive regulation, robust infrastructure, effective supervision and customer centricity.
- i. Firstly, RBI, in consultation with all the stakeholders, will continue its efforts to create a regulatory framework to promote twin objectives of enhanced coverage with interoperability of the payments system and convenience with security for the end-users in sync with emerging developments and innovations.
  - ii. Secondly, building a robust payments infrastructure in the country to increase the accessibility, availability, interoperability and security of the payment systems will continue to remain a key objective.
  - iii. Thirdly, Vision-2018 will focus on effectiveness of supervisory mechanisms to strengthen the resilience of the Financial Market Infrastructures (FMIs) and System Wide Important Payment Systems (SWIPS) in the country besides setting up appropriate oversight framework for new systems, and augmenting the data reporting and fraud monitoring systems.
  - iv. Finally, Vision-2018 will adopt a customer centric approach to streamline the customer grievance redressal mechanism, focus on building customer awareness and education, and initiate customer protection measures.

## **2. Expected outcomes of Vision-2018**

2.1 New policies that are proposed to be framed under Vision-2018 with focus on electronic payments will influence the trends in payment systems in the country. Taking into account the positive developments during the period under Vision 2012-2015, and with the concerted efforts of the Government and all other stakeholders like banks, payment system operators, users, etc. Vision-2018 is expected to result in:

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

## Payment & Settlement Systems in India: Vision-2018

*Building best of class payment and settlement systems for a “less-cash” India through responsive regulation, robust infrastructure, effective supervision and customer centricity*

### STRATEGIC INITIATIVES

RESPONSIVE REGULATION	ROBUST INFRASTRUCTURE	EFFECTIVE SUPERVISION	CUSTOMER CENTRICITY
<p>1. Orienting policy with emerging developments and innovations</p> <ul style="list-style-type: none"> <li>• <u>Framing new policy</u> : Policy framework for CCPs; Exit policy for authorised entities; framework for imposition of penalty; regulation of payment gateway service providers and payment aggregators; monitoring framework for new technologies</li> <li>• <u>Review of existing policies / guidelines in following areas</u>: Prepaid payment instruments (PPIs); mobile banking; White Label ATMs (WLA); Nodal account for Intermediaries</li> </ul>	<p>1. Facilitating faster payment services</p> <ul style="list-style-type: none"> <li>• National Electronic Funds Transfer (NEFT) – more frequent settlement cycles and exploring feasibility of adoption of ISO messaging format</li> <li>• Mobile Banking - enhancing options for customer registration for mobile banking services; enabling wider access to mobile banking services in multiple languages for non-smartphone users</li> <li>• Encourage innovative mobile based payment solutions</li> </ul>	<p>1. Assessment of resilience of payment and settlement infrastructure including FMIs and System-Wide Important Payment Systems (SWIPS)</p> <ul style="list-style-type: none"> <li>• Draft framework for testing resilience</li> <li>• Resilience of communication / messaging infrastructure</li> <li>• Resilience of IT systems of PSOs</li> <li>• Building capability to process transactions of one system in another system</li> </ul>	<p>1. Strengthening customer grievance redressal mechanism</p> <ul style="list-style-type: none"> <li>• Frame necessary guidelines to ensure enhanced customer grievance redressal mechanism in authorized payment systems</li> <li>• Require payment systems operators to adequately train front-office staff and agents</li> </ul>
<p>2. Setting up Payments System Advisory Council (PSAC) of industry and Government representatives/ experts to strengthen the consultative process</p>	<p>2. Improving Accessibility</p> <ul style="list-style-type: none"> <li>• Increasing acceptance infrastructure</li> <li>• Implementation of the Bharat Bill Payment System (BBPS)</li> <li>• Implementation of the Trade Receivables Discounting System (TReDS)</li> </ul>	<p>2. Design an Oversight framework</p> <ul style="list-style-type: none"> <li>• On the basis of proportionality of risk posed by PSOs</li> <li>• For large-value payment systems, retail payment systems (including IS audit), BBPS and TReDS.</li> </ul>	<p>2. Enhancing customer education and awareness</p> <ul style="list-style-type: none"> <li>• Electronic Banking Awareness And Training (e-BAAT)</li> <li>• Framework requiring PSOs to disclose fees and terms and conditions of their service.</li> </ul>
<p>3. Amendments to PSS Act</p> <ul style="list-style-type: none"> <li>• Improved governance of Payment System Operator (PSO)</li> <li>• Resolution of Central Counter Party (CCP)/ Financial Market Infrastructure (FMI)</li> <li>• Non-Registration of charge on collateral with CCPs</li> </ul>	<p>3. Promoting Interoperability</p> <ul style="list-style-type: none"> <li>• Unified Payment Interface (UPI)</li> <li>• Toll Collection</li> <li>• Payments for Mass Transit systems</li> </ul>	<p>3. Strengthening reporting framework including fraud monitoring</p> <ul style="list-style-type: none"> <li>• Move the reporting of periodic returns by payment systems operators to XBRL platform</li> <li>• Draw a framework for collection of data on frauds in payment systems</li> </ul>	<p>3. Protection of customer interest</p> <ul style="list-style-type: none"> <li>• Encourage PSOs to develop robust fraud and risk monitoring systems</li> <li>• Endeavour to build a framework to limit customer liability for unauthorised electronic transactions</li> </ul>
<p>4. Strengthen Financial stability</p> <ul style="list-style-type: none"> <li>• Encouraging adoption of Legal Entity Identifier (LEI) by financial entities</li> <li>• Settlement of funds leg of financial transactions in central bank money</li> </ul>	<p>4. Enhancing Safety and Security</p> <ul style="list-style-type: none"> <li>• Migration to EMV Chip &amp; PIN cards</li> <li>• EMV card processing at ATM based on chip data</li> <li>• Security of ATM transactions by holistically strengthening the safety and security of ATM infrastructure</li> <li>• Examining feasibility of Aadhaar-based authentication</li> </ul>	<p>4. Analysing data and publishing reports</p> <ul style="list-style-type: none"> <li>• Oversight report on select retail and large value systems</li> <li>• Analysis of Payment System related data within the Bank</li> </ul>	<p>4. Positive confirmation</p> <ul style="list-style-type: none"> <li>• incorporate the feature of sending positive confirmation of payment to the remitter in Real Time Gross Settlement (RTGS) system</li> <li>• Strengthen positive confirmation feature of NEFT</li> </ul>
	<p>5. Cheque clearing systems</p> <ul style="list-style-type: none"> <li>• Endeavour to eliminate Paper-to-Follow arrangements for all cheques issued by State Governments</li> <li>• Promoting use of positive pay mechanism, national archive on cheque images, etc.</li> <li>• Encouraging complete migration of cheques to CTS-2010 standards</li> </ul>		<p>5. Conducting customer surveys</p> <ul style="list-style-type: none"> <li>• Engage with various stakeholders / professionals to conduct user / customer surveys on specific aspects of payment systems</li> </ul>

### 3. Strategic Initiatives: Responsive Regulation

- 3.1 Creating a Responsive Regulatory Framework is the first strategic initiative under Vision-2018.
- 3.2 The legal framework for payment and settlement systems in the country is provided under the Payment and Settlement Systems Act (the PSS Act), 2007. The PSS Act empowers the Bank to regulate and supervise the payment and settlement systems in the country.
- 3.3 In discharging its roles and responsibilities under the Act, the Bank has been putting in place policy framework, issuing guidelines and instructions to banks and authorised payment system operators relating to safety, security and efficiency of payment systems. Besides formulation of new policies and guidelines, existing policies and instructions are all continually reviewed, taking into account the feedback received from the stakeholders.
- 3.4 Taking into account the rapid developments and innovations in the area of payment systems, the Vision-2018 envisages a more responsive regulatory framework based on consultations with stakeholders. The policy framework will support payment system initiatives that enhance access to payment services. The principle of “similar business, similar risk, similar rules” will invariably be applied.
- 3.5 Accordingly, the key focus areas for responsive regulation would be:

#### 3.5.1 New issues / areas for policy framework

- a. **Policy framework for Central Counter Parties (CCPs):** The CCPs are the critical financial market infrastructure (FMI) and the efficient of the same is important. RBI has already declared the policy framework for regulation and supervision of FMIs under the regulatory jurisdiction of the RBI. The PFMI against which FMIs are assessed lay emphasis on having effective governance framework and management of various risks, including legal, credit and liquidity risks against which FMIs are assessed. To begin with, the RBI would come out with regulations on Governance, Capital/ net worth requirement, registration/authorisation of foreign CCPS. At a later date, RBI may come out with regulations on risk management, if required. This will also serve as effective criterion to measure the equivalence standards of third country regulatory framework for the purpose of recognizing foreign CCPs operating outside and desirous of applying for recognition in India under these regulations.
- b. **Regulation of payment gateway service providers and payment aggregators:** The increasing growth of electronic payments, especially online payments, riding the growth of e-commerce and m-commerce transactions, has brought to the fore the increasing role and importance of entities that facilitate such online payments such as payment gateway providers and payment aggregators. The current guidelines on maintenance of nodal

accounts for such intermediaries (monitored through banks) are indirect and address only a few specific aspects of their functioning. Given their increasing role, the guidelines will be revised for the payments related activities of these entities.

- c. **Exit Policy:** Co-existence of an exit policy along with the policy on authorisation of entities which participate in the payment and settlement system is essential for the overall hygiene of the ecosystem. The exit policy would lay down the parameters and processes for voluntary exit of a payment system operator (PSO) authorised to operate a retail payment system. Such a policy would ensure that the interests of the consumers and other stakeholders are protected.
- d. **Framework for imposition of penalty:** Guidelines and standards for various payment and settlement systems are issued under the provisions of the PSS Act. Non-adherence to these guidelines and standards by participants and operators attract the penal provisions under the PSS Act. A framework for imposition of such penalties under the PSS Act would be put in place.
- e. **Monitoring framework for new technologies / innovations:** In order to ensure that regulations keep pace with the developments in technology impacting the payment space, the global level developments in technology such as distributed ledgers, blockchain etc. will be monitored, and regulatory framework, as required, will be put in place. Further, the payments eco-system is dynamically evolving with the advancements and innovations taking place, particularly in the area of FinTechs. In order to provide a platform for innovators to showcase their models to the industry, particularly in the areas of interest to payment systems and services, the Reserve Bank has organised an innovation contest through the Institute for Development and Research in Banking Technology (IDRBT). Learnings from such interfaces will also be used as inputs for policy adaptations.

### 3.5.2 Review of existing policies

- a. **Prepaid Payment Instruments (PPIs):** With increase in number of entities authorised to issue PPIs in the country, their usage for purchase of goods and services as well as funds transfer has also been growing. Over the years, the guidelines have been expanded to include several types of PPIs, some of which are not really being issued / used actively. Similarly, with growing use of PPIs, the initial forbearance given on KYC requirements, customer-facing aspects such as safety and security, risk mitigation measures, complaint redressal mechanism, forfeiture of unutilised balances, fraud monitoring and reporting requirements, etc. merit a review. A comprehensive review of the PPI guidelines will be undertaken keeping in view the changing scenario.
- b. **Mobile banking Guidelines:** To promote mobile phones as access channel to payment and banking services, the guidelines will be reviewed to address issues related to customer

registration for mobile banking, safety and security of transactions, risk mitigation and customer grievance redressal measures.

- c. **White Label ATM (WLA) Guidelines:** These Guidelines, formed with the objective of ensuring expansion of ATM infrastructure in rural and semi-urban areas, have not resulted in the much needed growth in ATM infrastructure in the desired geographical segments of the country due to multiple factors. The WLA Guidelines will accordingly be examined holistically and targets realigned to meet present conditions.

### **3.5.3 Payment System Advisory Council (PSAC)**

The Board for Regulation and Supervision of Payment and Settlement Systems (BPSS), set up under the PSS Act, is the apex body for regulating and supervising the payment system related developments and policies in the country. Vision-2018 envisages setting up of a Payments System Advisory Council (PSAC) to assist the BPSS in formulation of new policies, assessing the impact of new technological developments by providing necessary insights about futuristic developments and innovations in the area. The PSAC could have representations from diverse fields such as technology, telecommunication, FinTech, security solution providers, academia, Government, etc. and strive to provide to the BPSS the necessary consultative feedback from stakeholders for making strategic decisions in the area of payment systems.

### **3.5.4 Amendments to PSS Act**

Sound legal basis, including good governance, is the cornerstone for building a safe and efficient payments eco-system. Keeping this in view, amendments relating to settlement finality in the event of Central Counter Party (CCP) being declared insolvent or dissolved or wound down, and statutory charge on escrow account, have been made to the PSS Act which have come into effect from June 01, 2015. The Reserve Bank, as a member of the international Standard Setting Bodies (SSBs), is committed to adopting the international standards including those relating to recovery and resolution of FMIs. Efforts would, therefore, be made to bring in further amendments to the legal framework for addressing issues, such as:

- a. Resolution / insolvency of Central Counter Party (CCP) / Financial Market Infrastructure (FMI).
- b. Non-registration of charge on collateral with CCP: The Companies Act, 2013 has enlarged the meaning of 'charge' under that Act, covering the right of system provider to appropriate collateral. In a dynamic market scenario, where the market participants constantly move in and move out the collaterals from the control of the CCP, it is practically impossible to continuously register or modify the charge. Non registration of charge under the Companies Act should not in any manner affect the right of the CCP to appropriate the collaterals and the settlement finality. As legal certainty is extremely crucial in this market, for avoiding litigation, necessary amendment to clarify this position would be taken up.

- c. Better governance in critical payment systems operators both in retail and large value payment systems by appointing observers on the board of the service providers or by appointing additional directors, as required.

### **3.5.5 Measures to strengthen financial stability**

- a. **Adoption of Legal Entity Identifier:** The legal entity identifier (LEI) uniquely identifies parties to financial transactions globally. The need for this was felt in the aftermath of the last financial crisis. Use of LEI would facilitate monitoring the exposure of entities across systems. Bank would put in place a framework to encourage the adoption of LEI for certain transactions / markets / categories of institutions.
- b. **Settlement of funds leg of securities and commodity market transactions in central bank money:** Settlement in central bank money helps to avoid credit and liquidity risks. Towards this end, steps would be taken to implement funds settlement of all securities and commodity market transactions in central bank money.

## **4. Strategic Initiatives: Robust Infrastructure**

- 4.1 Development of a Robust Payments Infrastructure is the second strategic initiative under Vision-2018.
- 4.2 Availability of robust infrastructure to support electronic payments is a critical factor influencing the adoption of electronic payments. This is further augmented by policies that increase the efficiency and speed of payments, enhance transaction security, facilitate risk mitigation, improve accessibility and promote interoperability. Bank will explore options to strengthen technological resilience without impeding innovation. Bank will also encourage smaller banks such as Regional Rural Banks and Cooperative Banks in adoption of modern payment systems.
- 4.3 Accordingly, the key focus areas for building a robust payments infrastructure would be as outlined below:

### **4.3.1 Facilitating faster payment services**

The payments eco-system in the country provides multiple options to different segments of users for funds transfer as well as for making payments in exchange of value for goods and services. With increasing adoption of electronic payments, particularly those driving e-commerce and m-commerce, there is a growing demand for 'faster' payment services which, in turn, facilitate ease in doing financial transactions. Towards this end, the measures that will be initiated will include:

- a. **National Electronic Funds Transfer (NEFT):** The growing adoption of NEFT by individuals, businesses and government agencies/departments, necessitate a review of the system to enable faster payment processing through introduction of more frequent settlement cycles. Similarly, the feasibility of adopting ISO messaging format for NEFT will be explored.
- b. **Mobile Banking:** The high mobile density in the country is being increasingly leveraged to offer payment services by a wide range of payment service providers so as to enable an on-the-go, faster payment experience to the customers. In addition to the efforts to on-board or increase customer registration level for mobile banking through simplified registration process and increasing the access points for same (through authorised ATM networks), the policy efforts will also focus on ensuring that access to mobile banking services is seamlessly provided to the large number of users of non-smartphone handsets in multiple languages.
- c. Service providers will be encouraged to adopt technology to provide innovative easy to use mobile based payment solutions in an interoperable environment without compromising on security.

#### **4.3.2 Improving accessibility**

In order to improve access to more electronic payment channels, Vision-2018 will give priority to the following:

- a. **Increasing acceptance infrastructure for electronic payments :** The large number of bank accounts opened under the Prime Minister Jan Dhan Yojana (PMJDY) as well as the large number of cards issued to these account holders, particularly in rural and semi-urban areas, necessitate that the access to electronic payment services to these customers are quickly augmented. Hence, a policy framework will be put in place for setting up necessary acceptance infrastructure including ATMs and POS, across all geographical and industry segments such as groceries, education, transport, utilities, government services, healthcare, etc. in the country.
- b. **Implementation of the Bharat Bill Payment System (BBPS):** BBPS, which is being set up to provide an accessible multi-tier infrastructure facilitating anytime, anywhere, any bill payment, will be made operational. Based on the progress in BBPS and its activities, the scope of payments covered under the system will also be gradually widened to include other types of services, in addition to the repetitive payments for everyday utility services such as electricity, water, gas, telephone and Direct-to-Home (DTH) planned for the present.
- c. **Implementation of the Trade Receivables Discounting System (TReDS):** TReDS, which is an institutional mechanism for facilitating the financing of trade receivables of MSMEs from corporate buyers through multiple financiers, will be made fully operational. Bank would

pursue with other authorities/Government to amend their regulatory framework for speedier implementation and wider coverage of TReDS.

#### **4.3.3 Promoting interoperability**

The ability of customers to use and re-use a set of payment instruments seamlessly across different segments to meet a variety of payment requirements should not be constrained by a 'silo' approach to developments in the payments eco-system. The requirement of users for seamless payment experience are met only when the payment systems are inter-operable and are able to communicate within their own segments on the basis of common standards adopted by all providers of these services. Vision-2018 envisages promoting interoperability in areas which have a high potential for driving electronic payments, including for small value transactions, such as the following:

- a. **Unified Payment Interface (UPI):** At present although a large number of banks are offering mobile banking services these are not completely inter-operable, especially for merchant transactions. This, in turn, has impacted the use of mobile payments for merchant / P2B (Person to Business) transactions. Full operationalisation of UPI, which aims at this customer convenience, will provide the standard interface for communication across different mobile-banking applications of banks thus facilitating inter-operability in P2B payments.
- b. **Toll Collections:** Collection of toll, largely done in the form of cash payments, is another segment where efforts to migrate to electronic payments have been sporadic and isolated. Such disparate developments have led to the propagation of different systems across different parts of the country, not only causing confusion and inconvenience to the customers, but also pushing them further into cash payments. Hence, electronification of the toll collection systems on a pan-India basis in an interoperable environment will be encouraged.
- c. **Payments for Mass Transit Systems:** Another segment which has a huge potential for migrating large number of small value cash transactions to electronic payments, is in the area of mass transit (road transport, metro rail, etc.). Though there have been developments in recent times in different parts of the country to put in place automated fare collection for mass transit systems all of them work on proprietary systems and standards, thus coming in the way of inter-operability. Hence, the focus will be to ensure that the payment mechanisms being put in place in this segment are interoperable and built on open standards, preferably using open system payment instruments.

#### **4.3.4 Enhancing Safety and Security**

Safety and security of payment systems and transactions is an important factor that helps in boosting the trust and confidence of the customers in using electronic payment mechanisms.

Towards this end, Bank will continue to adopt and implement international standards and best practices that enhance payment systems security. Some of the measures envisaged include:

- a. **Migration of cards to EMV Chip and PIN:** Banks have been advised that all new cards issued by them should be EMV Chip and PIN cards. A roadmap for migration of all existing magnetic stripe cards to EMV Chip and PIN cards has also been laid down. Bank will continue monitoring the progress made by the banks so as to ensure adherence to the timelines.
- b. **EMV card processing at ATMs:** Presently the ATMs in the country read and process the card transactions only on the basis of data contained in the magnetic stripe, even though the card may be a Chip and PIN card. With the roadmap in place for issuance of EMV Chip and PIN cards, the aim will be to ensure that all the ATMs in the country migrate to processing of EMV Chip and PIN cards on the basis of Chip data rather than magnetic stripe data.
- c. **Security of ATM transactions:** Although ATM infrastructure is widely used for meeting cash requirements of the customers, it is increasingly being used as a channel for carrying out other non-financial transactions and delivering value-added services. As such, the operational and logical access security aspects of ATMs assume significance, and any shortcomings in these areas make the systems vulnerable to attacks by fraudsters, thus impairing customer confidence and trust. The Bank will, therefore, examine holistically the physical and logical safety and security requirements of ATMs infrastructure and issue necessary guidelines to strengthen them.
- d. **Aadhaar-based authentication:** Examine the technical, operational and business feasibility of using Aadhaar as a factor of authentication for payment transactions.

#### **4.3.5 Measures for cheque clearing systems**

As cheques continue to be used for limited purposes by certain segments of users, it is sought to enhance the efficiency of cheque clearing systems in the following ways:

- a. Working towards eliminating paper-to-follow arrangement for cheques issued by the State Governments so that clearing of such cheques is also based on cheque images.
- b. Promoting use of positive pay mechanism, wider use of national archive of cheque images etc.
- c. Encouraging complete migration of cheques to CTS-2010 standards for better fraud detection and more effective risk mitigation
- d. Decreasing the frequency of clearing for instruments not complying with CTS-2010 cheque standards.

4.4 The above efforts will ensure ubiquitous participation i.e., provide an environment for payment products that are broadly accessible to everyone and available to be used in a variety of circumstances taking into account convenience, cost and risk considerations.

## **5. Strategic Initiatives: Effective Supervision**

5.1 Effective Supervision over Payment Systems and the Operators will be the third strategic initiative under Vision-2018.

5.2 As migration to alternate modes of payment, viz., electronic payments, both for financial markets as also businesses and individuals are increasing, resiliency of payment systems gains importance. Resiliency is the ability to continue to operate even if a system has failed completely by switching activity to a separate system or process or a combination of both. The assurance of the authorised payment systems' resilience comes from the oversight framework.

5.3 In order to have robust Payment and Settlement Systems in the country, it is not only essential to continuously self-test the resilience of the existing payment systems but also assess the various standards adopted for our systems vis-à-vis the existing international standards / best practices for similar systems. In this context, the resiliency of not just the Financial Market Infrastructures (FMIs) but also that of System-Wide Important Payment Systems (SWIPS) assumes significance.

5.4 Keeping the above in view, the Bank would be initiating the following actions in respect of FMIs and SWIPS:

### **5.4.1 Assessment of resilience of payment and settlement infrastructures**

- a. A framework to test the resilience of (both retail and large value) payment systems in the country would be drafted.
- b. For ensuring continued operations and availability of the payment systems, resilience of communication / messaging infrastructure would be assessed.
- c. Payment systems being largely driven by changes in technology, a suitable framework to audit and assure the existence of risk control measures and resilience of their IT systems by payment systems operators would be put in place.
- d. In addition to the existing arrangements to ensure business continuity in individual payment systems, efforts would be made to enhance resilience by building necessary capability to process transactions of one system in another system. For instance, building the capability to process NEFT transactions in RTGS system and vice versa.
- e. As necessary, the support and help of external agencies, both existing and upcoming, will be taken to assess the resilience of the payment and settlement systems.

#### **5.4.2 Oversight framework for existing and new payment systems**

A well-structured oversight framework complements the framework for resilience of payment infrastructure. The following measures would be part of the oversight framework for existing and new payment systems that would be implemented:

- a. **Proportionality of oversight:** The intensity of oversight would be made proportionate to the systemic risks or system-wide risks posed by a payment system or operator or participant.
- b. **Large-value payment systems:** On-site inspection of FMIs and SWIPS would be carried out periodically with self-assessment to be carried out by FMI / SWIPS on a more frequent basis.
- c. **Retail payment systems:** A detailed framework on oversight of retail payment systems would be framed. The focus would continue to be on off-site surveillance, regular self-assessment and need based inspection of retail payments. As these systems are largely driven by changes in technology, an appropriate framework for IS Audit would also be put in place
- d. **Bharat Bill Payment System (BBPS):** An oversight framework to cover both Bharat Bill Payment Central Unit (BBPCU) and Bharat Bill Payment Operating Units (BBPOUs) will be put in place to ensure the safety, security and resilience of the BBPS.
- e. **Trade Receivables Discounting System (TReDS):** The TReDS will also be functioning as pan-India system. Therefore, a comprehensive oversight framework to ensure the smooth functioning of TReDS and its resilience, including the risk management framework as required, would be put in place.

#### **5.4.3 Strengthening reporting framework including fraud monitoring**

- a. **Reporting framework:** As part of off-site surveillance process, payment system operators (PSOs) are directed to adhere to periodic reporting requirements. The periodic returns would be moved to XBRL system. This would offer major benefits at all stages of business reporting and analysis, aiding in better quality of information and decision-making. In addition, a structured reporting framework for PSOs to communicate the findings of the audit of their IT systems along with their compliance would also be put in place.
- b. **Fraud Monitoring:** To further strengthen the confidence in the payment systems and minimise instances of frauds, there is a need to monitor the types of frauds that may be taking place in various payment systems. Accordingly, to begin with, a framework for collection of data on frauds in payment systems would be drawn up in consultation with the industry.

#### **5.4.4 Data analysis and publication of reports**

- a. **Oversight report for retail and large value payment systems:** Bank would take steps to publish a separate oversight report for payment systems in the country on a regular basis.
- b. **Analysis of Payment System related data within the Bank:** With automation of regulatory reporting and generation of large volumes of data, studies would be undertaken to identify the emerging trends / attributes of payment system, seasonality, pattern analysis, etc. This would strengthen the regulatory decision support system.

### **6. Strategic Initiatives: Customer Centricity**

6.1 Focus on customer is the final key thrust areas of Vision-2018.

6.2 Customer acceptance and usage of payment products provide one half of the required network effect in payment systems with the other half coming from the entities willing to accept such payments. Confidence, convenience, and cost are key aspects that will encourage wider customer adoption and usage of electronic payments. Customers' increasing expectations are driving provider responses. Towards this end, Vision-2018 would strive to keep the customer interest at the centre of payment system policy actions.

6.3 The measures in this regard would include:

- a. **Strengthening customer grievance redressal mechanism:** A robust and responsive customer grievance redressal system is essential to build an environment of trust and confidence in payment systems. Further, customer experience should be uniform irrespective of whether the service is being provided by banks or non-bank entities. Hence,
  - i. The Bank would frame necessary guidelines to ensure that existing complaint redressal framework of authorised non-bank entities is improved, and that new payment systems are set up with appropriate mechanisms to address customer grievances in a proactive manner.
  - ii. Payment System Operators (PSOs) would also be required to adequately train their own front office staff and their agents to understand and appropriately address diverse requirements when servicing their customers.
- b. **Enhancing customer education and awareness:** Customer confidence in payment systems is reposed with usage combined with better awareness of the product and processes. A well-informed customer base would also facilitate faster migration away from cash payments. Involvement of stakeholders in this exercise can help to reap greater benefits, and, as such, the Bank would collaborate with other stakeholders in creating an environment of awareness and education on e-payments. Hence,

- i. The Bank, in collaboration with all the stakeholders, would endeavour to enhance customer awareness through structured Electronic Banking Awareness And Training (e-BAAT) programs.
  - ii. Further, the Bank would prepare a framework requiring PSOs to transparently disclose all fees they charge as part of their service along with the applicable terms and conditions, including liability and use of customer data.
- c. Protecting Customer's interest: The Bank would encourage payment system providers to adopt best practices for protecting customer interest by putting in place robust fraud and risk monitoring systems. In addition, a regulatory framework to limit customer liability in case of unauthorised transactions would be put in place.
- d. Ensuring positive confirmation for RTGS transactions: Presently the NEFT system has the feature of sending positive confirmation to remitters regarding the completion of the funds transfer, thus giving an assurance to the remitter that the funds have been successfully credited to the beneficiary account. In order to provide the same confidence to customers using RTGS system for funds transfer, the Bank will incorporate the feature of positive confirmation for RTGS transactions too. Further, the feature in the NEFT system will also be strengthened by ensuring that all banks send the confirmation in a timely manner.
- 6.4 Conducting Customer Surveys: An important factor which contributes to refinement of policies and regulatory framework is the ability to gauge first-hand the developments / changes taking place in customer habits with respect to payment choices. In order to ascertain these changes, the Bank will engage with various stakeholders / professionals to conduct user / customer surveys over a period of time on specific aspects of payments systems. The findings from these surveys would not only provide insights into the use of existing payment products and processes by customers for meeting their various payment needs but also generate ideas for reviewing policies and empowering the users through structured awareness intervention.

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