

18th SAARC Payments Council Meeting



The 18th Meeting of the SAARC Payments Council (SPC) was held on Monday, August 13, 2018 under aegis of the Maldives Monetary Authority, Maldives. In the absence of the Chairman, Mr. B.P. Kanungo, Deputy Governor, Reserve Bank of India (RBI), Mr. S. Ganesh Kumar, Executive Director, RBI, chaired the meeting. The meeting was attended by all member countries except Afghanistan.

Mr. Ahmed Naseer, Governor, Maldives Monetary Authority welcomed the delegates to Maldives. In his inaugural address, he outlined the steps taken by Maldives Monetary Authority towards upgrading the payments infrastructure to make it safe and robust while serving the needs of the economy. He exhorted all the member countries for coordinated efforts for having a common regional payment system which will provide a fillip to the regional financial market. Mr. Naseer observed that payment systems like RTGS and retail payment systems had an important role to play in increasing trade and ensuring growth and financial inclusion. He emphasised on the importance of SAARC Payment Council to foster greater cooperation in the region

In a workshop organised on August 14, 2018, after the SPC meeting, Mr. Deepak Kumar, Chief General Manager, Department of Information Technology, RBI made a presentation on “**Trends and Implications of Cyber Security in Financial Services**”. The workshop also had a panel discussion on the topic ‘**Economic Impact of Cross-Regional Integration of Payment Systems**’.

SAARC Payments Council –Virtual Meeting

A virtual meeting was held on May 07, 2019 which was chaired by Mr. B. P. Kanungo, Chairman, SPC and Deputy Governor, Reserve Bank of India. All member countries except Afghanistan participated in the meeting.

Shri Ganesh Kumar welcomed the participants and expressed that the advent of technology has made it possible to conduct virtual meetings wherein interaction with the entire payments team of member countries was possible. He pointed out that in the last meeting, members had expressed their interest and enthusiasm to meet more frequently resulting in this virtual meeting.

Shri B P Kanungo, Chairman, SPC expressed his pleasure to meet colleagues from across the region. He highlighted the importance of payment systems for lubricating the economy by facilitating transactions. He further drew attention to the importance of having robust, safe and secure payment systems specially keeping in mind the large segment of first generation users in all the SAARC countries.

All members provided updates about the recent developments in payment and settlement systems in their respective countries since the last meeting. The updates provided all the members insights about the development in payment ecosystem in the respective countries.

Other topics discussed during the meeting included publication of SAARC Payment Statistics, Risk Mitigation Measures Matrix for SAARC countries, Regional Co-operation and payment system oversight in member countries.

In his closing remarks, member-secretary, Shri P. Vasudevan, Chief General Manager, Department of Payment and Settlement Systems, RBI expressed reassurance that payment systems had an exciting future with various opportunities for development. He also highlighted the push from non-bank fin-tech players. He thanked all the participants for attending the meeting and noted to convene virtual meetings at more frequent intervals.

Payment Systems Development in SAARC Countries

1. Afghanistan



1. Overview

Afghanistan's formal banking system was established in 1930s. Da Afghanistan Bank (DAB) is the central bank of Afghanistan which is responsible for issuing licenses, regulating and supervising commercial banks, foreign exchange dealers, securities service providers, securities transfer system operators, Payment Services Providers (PSPs) and Payment Systems Operators (PSOs). DAB is also responsible to establish, maintain and promote sound and efficient systems for payments and settlement systems and transfers of securities issued by the State or DAB.

Over the years, the Afghanistan payment systems infrastructure has developed considering the broader goals of safety, efficiency and ensuring mitigation of risks in the system. The payment and settlement systems currently functional in Afghanistan are discussed in the ensuing paragraphs.

1.1 Large Value Payments: Afghanistan Clearing Settlement System (ACSS) which was introduced in the year 2005, is called the Inter-bank Clearing and Payment and Settlement System (ICPSS) and is used for interbank (large / retail) value payments system. It is partially automated gross settlement

system. It makes settlement in three currencies. Viz., Afghani (AFN), US Dollars (USD) and Euro (EUR) and all licenced banks are direct participants in this system.

1.2 Retail Payments (National Switch):

During 2011, the country established various payment instruments and systems which include card payment systems, ATM – POS channels, internet and phone banking and other facilities for customers by installing and implementing the National Switch for clearing of retail payments of Banks and non-banks (MNOs, PSPs) as also for card and mobile payment services.

The National Switch in Afghanistan is operated by Afghanistan Payment Systems (APS), a consortium of commercial banks. APS was set up in 2016 with the objective of aiding retail banking through innovative electronic and mobile payment services and has contributed to the modernization and development of retail payments in the country.

Significant progress has also been made in retail payments through internet and mobile banking systems.

1.3 Securities Trading System:

DAB has developed a web based securities trading system in 2009 called

the AFX system with all commercial banks and money exchange dealers as its members.

2. Recent Developments

2.1 Policy Framework for (AIPSSS) 2018:

Policy framework for (RTGS-ACH) systems has been approved by DAB in 2018 and is proposed to be accessible in 3 languages.

2.2 Development in ACSS:

2.2.1 Custom Revenue collection:

The E-payment system has been developed and about (19) custom offices of Afghanistan are connected to the ACSS / ICPSS current system for custom duties collection purpose and all revenue accounts are mapped in the system. Now duties can be paid through commercial banks without use of cash.

2.2.2 Government Entities Revenue collection:

More than 220 revenue accounts of government entities are connected / mapped in the ACSS / ICPSS current system for revenue collection electronically facilitating payment of duties through 195 branches of commercial banks connected to the ACSS / ICPSS system.

3. Future Agenda Items

Afghanistan Interbank Payment Securities Settlement System (AIPSSS):

3.1 Real Time Gross Settlement (RTGS): The RTGS system is envisaged to be a substitute of the current ACSS and will be available for all stakeholders

for interbank payments transactions. The test environment is ready for training of commercial banks.

3.2 Automated Clearing House (ACH):

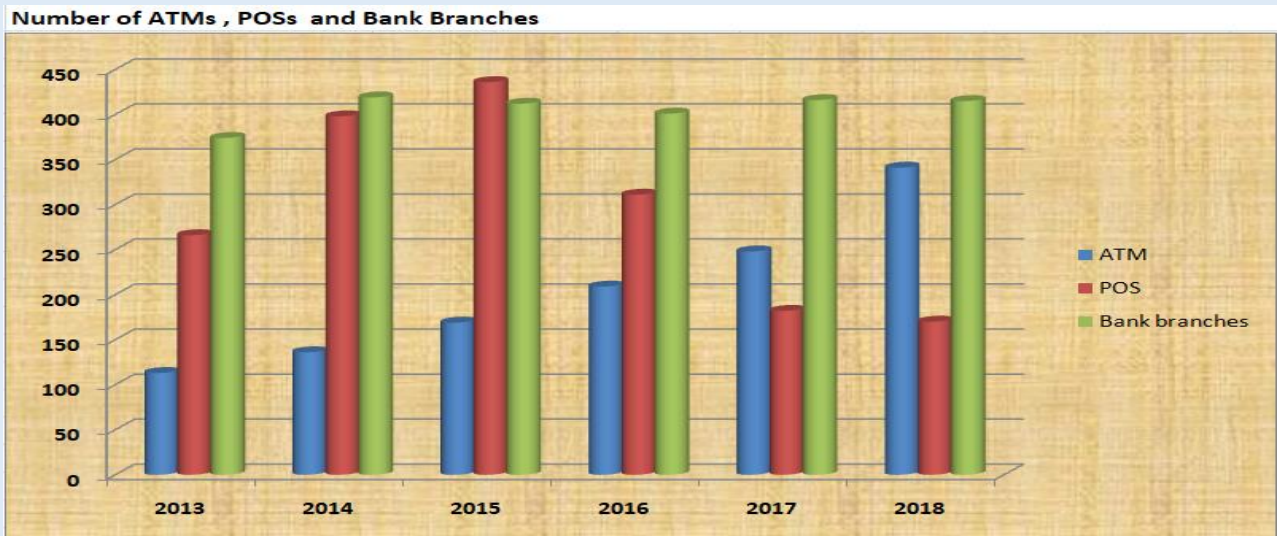
The ACH system will replace the current (CCH) Cheque Clearing House system and will be available in the near future.

3.3 Central Securities Depository (CSD):

The CSD (central Securities depository) system will replace the current AFX securities trading system and will be available in the near future.

3.4 Pricing Policy for (AIPSSS) 2019:

Pricing policy for (RTGS-ACH) systems is under process of the project implementation committee and would be finalized and implemented in 2019.



PS Infrastructure End of (2018)

- Public Banks: **3**
- Private commercial banks: **8**
- Foreign banks branches: **2**
- Banks Branches: **415**
- Total No of ATMs terminals : **341**
- Total No of POS terminals : **170**
- Cards issued: **752606**
 - Credit Card: **2008**
 - Debit Card: **506557**
 - Prepaid Card: **5088**
 - ATM cards: **226066**
 - Web Surfer Cards: **12887**
- Mobile Money Accounts **1120106**
 - Registered: **1069195**
 - Active : **50911**
- Mobile Payments
 - Transactions: **9285369**
 - Amount: **16,399,084,787**
 - Max Value per trans : **15000**
 - Trans Allowed per day: **10**
 - Trusted Agents: **1921**
 - Mobile Services Companies: **3**
- Commercial Bank Branches **415**
- Licensed Money Service Providers: **2984**
 - Hawala Dealer: **1285**
 - Money FX dealers: **1699**



2018

Area: 652,864 km²
Population: 28.1 million
Currency: Afghani
Currency Code: AFN
Nominal GDP: \$21.747 Billion
Per Capita GDP: \$747

2. Bangladesh



1. Overview

The financial infrastructure in Bangladesh has witnessed remarkable changes over the last two decades. Technological advancement, urges for upgraded, prompt, cost effective and secured payment services led Bangladesh Bank (BB) to introduce and operate three sophisticated payment platforms namely:

- Bangladesh Automated Clearing House (BACH):
- National Payment Switch Bangladesh (NPSB):
- Bangladesh Real Time Gross Settlement Systems (BD-RTGS)

Besides, BB promoted Mobile Financial Service (MFS) for bringing the un-served / under banked segment of the population under the umbrella of financial/banking services. It has allowed e-wallet service as well. A brief description of the current payment infrastructure of Bangladesh, with its updates, is presented below:

1.1 Bangladesh Automated Clearing House (BACH):

Bangladesh Automated Clearing House (BACH) is the first electronic payment platform of the country for inter-bank clearing systems. Its BACPS wing, which was launched in 2010, clears paper based instruments, while BEFTN

wing, which was launched in 2011, clears electronic instruction based payment instruments. Both the wings settle payment obligations in a prompt, efficient, cost effective and secured manner.

From June 2018, Government of Bangladesh (GoB) has implemented disbursement of its Social Safety Net benefits (such as allowances for elderly people, differently able people, freedom fighters, newly mothers on maternity, salary of primary school teachers, stipend for primary education and girls education etc.) through EFT Channel. With this effort, the beneficiaries having a mobile account but no bank account, can also receive payments in a quick and hassle free manners. Another remarkable achievement of BB and GoB is the issuance of scrip less Savings Certificate and disbursement of its proceeds (both interest and principal) automatically to customer's bank account through EFT network, which has remarkably reduced the queue at banking counters.

BACH is undergoing an up-gradation of its system and infrastructure which is due to be completed soon. The new system, BACH-II, is expected to go live before July 2019. BACH-II will feature EFT multi session for BDT and inland FC transactions with settlement at T+0.

Besides, BB is planning to open EFT services to a 24/7 timeline to ensure prompt and hassle free disbursement of the expatriate remittance.

1.2 National Payment Switch Bangladesh (NPSB):

NPSB was established in 2012 with the interoperability of ATM transactions and in the later phases it implemented interoperability of POS and internet banking transaction in 2015 and 2017 respectively.

At present, 53 Banks are operating card business throughout the country. Among these 53 banks, NPSB facilitates interoperable ATM transaction environment for 51 bank, interoperable POS transaction environment for 50 banks and interoperable Internet Banking Fund Transfer (IBFT) environment for 19 banks. As a result of these facilities, bill payment, e-commerce transaction and retail purchases at different merchant outlets through cards has grown considerably and the demand for holding cash in hand is dropping rapidly. IBFT facilitates inter-bank funds transfer at almost real time. For security concern banks are subject to ensure two factor authentications, SMS alert etc. Customers are enjoying a number of banking services like utility bill payment, credit card bill payment, instalments payment of loan, insurance premium payment, DPS instalment payment etc. through internet banking.

Recently, NPSB has planned for introducing QR Code interoperability. For this purpose BB has published standard for Unique QR code named as “Bangla QR” and has already distributed its specification to banks for their readiness which is expected to go live within very short time. Besides, BB has taken initiatives for inter-operability of Mobile Financial Services through NPSB channel which is expected to be launched by December 2019.

The implementation of NPSB encourages the expansion of the card based payment networks substantially and plays a great role in changing the payment preference from cash to plastic money. So far 10355 ATMs and 45896 POS machines have been installed in the country. A total of 14.09 million debit cards and near about 1.11 million credit cards have been issued till December 2018 which indicates 21% growth rate over the last year’s total number of card.

1.3 Real Time Gross Settlement (RTGS):

Bangladesh Bank implemented RTGS system in October 2015. The system was designed taking into account the best international practices in place. Mainly the high value and time critical payments are being settled through RTGS system instantly and individually. In RTGS, the transmission and processing of payment messages are automated, while settlement takes place in central bank funds, i.e., final

(irrevocable and unconditional) transfer of value is recorded in the books of the central bank. Customer initiated / requested interbank transactions (both individual and corporate) and money market transactions are settled mostly through RTGS. Over 9000 online branches (that are under Core Banking Solution) of 56 banks are currently connected to this system. At present, around 7500 transactions valuing around BDT60 billion are settled daily through RTGS.

RTGS has successfully accommodated government's receipts in digital form for the last few years. Currently export duty payments are settled through RTGS which has reduced the procedural hassles and provides convenience to exporters and the customs authority as well. With this endeavour, BB is targeting to implement E-challan concept for all type of government receipt through RTGS system with a view to expedite collection of government revenue in a prompt, cost effective and hassle-free manner. It enables customers to pay all taxes, VAT and other government duties by either clicking from his house through internet portal or by moving to any nearby banks.

1.4 Mobile Financial Service:

With a view to bringing the unbanked rural segment of the country into the financial environment BB promoted MFS in 2011. Immediately after introduction, it became popular and caught attention

both at home and abroad. Scheduled banks and their subsidiaries are allowed to operate a mobile-phone based financial service and this is known as bank-led model. A MFS provider is allowed to engage or hire outside individuals / businesses as agents to deliver the services directly to the customers.

Many of the government payments, especially the social safety net program payments are now being paid directly into the beneficiary's mobile wallet. At present, there are 16 MFS providers with two of them hold the lion share of the market. Around 7 million transactions with a value of BDT11.66 are settled on a daily basis in this system. There are over 68 million mobile account holders and 0.9 million agents in the MFS market.

Recently, BB published a new regulation for the MFS providers named "Bangladesh Mobile Financial Services (MFS) Regulation, 2018" to facilitate competitive MFS market and to bring the MFS provider under an enhanced supervisory system. Besides, in order to encourage women empowerment and facilitating women access in the MFS market, BB has worked together with International Finance Corporation (IFC) to draft different guidelines on Women Agent Recruitment, Women Agent Selection, Women Agent Training etc.

2. Recent Developments

2.1 Endeavours for New Payment Initiatives:

Bangladesh Bank's endeavour towards modernising the country's payment systems and widening up more opportunities for digital finance induced some private commercial banks and couple of technology providers/ FINTECH companies to establish switching solution for banks, Payment Gateway for providing e-commerce payment services in the country. Besides, BB has given permission to two e-wallet service providers as Payment Service Providers (PSP) who are actively operating in the market. Under this e-wallet facility one can connect his/her bank account with the wallet and can use e-money to pay merchant, to pay bills or to transfer money to another wallet of the same provider. All these new initiatives helps the e-Merchants to collect the proceeds in a quick and hazard free manners, which inspires them to provide more online products / services and payment option to people for online purchase.

Bangladesh Bank has recently given permission to banks for implementing Contact Less payment up to TK 3000 only in EMVCO complaint credit card transaction using NFC technology. The precondition for these types of transactions includes customers consent for having the service, sending SMS to customer for each transaction etc.

2.2 Other initiatives:

Bangladesh Bank has also taken initiatives to reconstruct its IT infrastructure so as to ensure efficient monitoring and control and enhance IT security which will be implemented soon.

2.2.1 Payment Systems Act:

BB has sent the draft Payment Systems Act to the ministry concerned which is expected to be enacted in 2019. The Act contains a provision for constituting a National Payment Council (NPC). Till the enactment of the Act, BB has formed a Payment Systems Task Force which will have expert opinion on various payment systems. The Task Force comprises 11 members selected from different areas of the financial sector like BB, Association of Bankers Bangladesh (ABB), bank and non-bank entities playing participant / operator's role in payment systems, technology experts etc.

2.2.2 Oversight Policy Framework 2019

BB formulated "Oversight Policy Framework 2019" and already has started implementing it for keeping the payment systems operator and participants and their related parties in right track. It covers the oversight of both banks and non-banks licensed by BB and engaged in any kind of payment related activities.

2.2.3 E-Money Regulation:

In addition, BB has drafted an 'E-Money Regulation' to assure safety and

soundness of all e-money schemes licensed by BB except the MFS providers who are operated under MFS regulation 2018.

3. Bhutan



1. Recent Developments - Domestic

1.1 Implementation of Global Interchange for Financial Transactions (GIFT) Payment System:

The Royal Monetary Authority (RMA) has been using the EFTCS fund transfer application for domestic retail fund transfer developed with the technical assistance of RBI since 2011. As recommended by the RMA management and the RBI, as a complete overhaul of the existing system, a platform based on latest and futuristic technologies, viz., GIFT System was adopted. RMA initiated migration and implementation of GIFT Payment System in collaboration with the Indian Financial Technology & Allied Services (IFTAS) and GIFT payment system officially went live from March 8, 2019. It supports 3 types of payment services, viz., RTGS, BITS and Bulk.

1.1.1 BITS (or batched) settlement service:

The BITS enable high value interbank fund transfer in a batch settlement cycle. The batch timings are fixed by RMA in line with the operational timings of the banks. For instance, there could be five

batches in a one-day settlement cycle. The services are also available on Saturdays with a reduced number of batches.

1.1.2 Real-Time Gross Settlement Service:

Payments made through this service are settled immediately on receipt. The RTGS allows transfer of money from one bank to any other bank on a "real time" and "gross" settlement basis. RTGS systems are typically used for large-value transactions that require and receive immediate clearing and are considered a systemically important payment system.

1.1.3 Bulk Payment Service:

The Bulk Payment service can handle cases where multiple beneficiaries are to be credited from a single account and vice versa. These transactions are targeted mainly for institutional payments or large payment collection agencies like utility bill companies. Examples are salary and pension payments, loan repayments etc.

1.2 Revised provisions in the E-Money Issuers Rules and Regulations 2017:

The RMA Board approved the e-Money Issuers Rules and Regulations with the objective of (a) licensing, regulating and authorising the establishment and issuance of e-Money by licensed deposit taking Financial Institutions and Telecoms companies in the country; and (b) enhancing financial inclusion by

extending financial services beyond the conventional branch-based banking.

As on date, one commercial bank, viz., Bank of Bhutan Limited and two telecom companies, viz, Bhutan Telecom Limited and Tashi Infocomm Limited have been authorized to issue wallet services in Bhutan.

Recently, the e-Money Issuer Rules and Regulations 2017 were amended to allow interoperability and merchant payment so as to enable and promote e-Money issuance and usage in the country.

1.3 Partial funding of PoS terminals:

To promote and support the development of supply side in enhancing the usage of digital payments in the country, RMA announced the strategic initiative to partially fund the purchase of PoS terminals to be deployed all across the country, on a 50-50 cost sharing model with the commercial banks. To date, 350 PoS terminals have been jointly procured by all the commercial banks under this initiative.

2. Recent Developments - Regional

2.1 Interconnection of Bhutan Financial Switch and National Financial Switch of India:

RMA and the National Payments Corporation of India (NPCI), an umbrella organization for retail payment systems in India, have initiated inter-connection of Bhutan Financial Switch (BFS) and National Financial Switch of India (NFS)

to enable cross border interoperability of RuPay cards issued by commercial banks in India to be used on ATM's and PoS terminals in Bhutan for phase I and RuPay cards issued in Bhutan to be used on the RuPay acceptance infrastructure in India in phase II.

The Inter-connection of Bhutan Financial Switch and National Financial Switch of India is an exemplary project which other member countries could explore. The project was soft launched on March 17, 2019 and has provided platform for Indian visitors to carry out seamless ATM and PoS transaction on ATMs and PoS terminals in Bhutan. The official launch of the project is expected to be held very soon.

2.2 Payment Card Industry Data Security Standards (PCI-DSS) certification:

The RMA, in order to provide safe, secure and efficient card payments in the country, initiated the PCI-DSS version 3.2.1 certification with the BSI. BSI officially completed the assessment of the Bhutan Financial Switch and officially awarded the PCI-DSS certificate on February 11, 2019.

3. Recent Developments – International

3.1. Implementation of International Payment Gateway and e-Commerce:

With rapid technological advancement in the financial sector, there is a growing demand for an International Payment Gateway and national e-Commerce

platform in the country. The ability to pay for products or services on a website is becoming less of a convenience feature and more of an option a customer expects. The implementation of payment gateway platform is thought to support the export of Bhutanese goods, provide an avenue for domestic e-Commerce merchants to expand their global reach, and inbound international payments particularly in the tourism sector. Furthermore, there is a requirement from the developing CSI sector to establish an international e-Commerce platform to take their products into the international market.

Therefore, in order to facilitate provision of secure & efficient e-payments as well as to facilitate growth of CSI in the country, The Bank of Bhutan limited as agent of the RMA is working on the implementation of International Payment Gateway and National e-commerce portal to showcase and market products exclusively made in Bhutan from raw materials produced in the country. The International Payment Gateway is expected to be launched in July 2019 during the BEFIT 2019.

4. Future Agenda Items

4.1 Formation of National Payment Council of Bhutan:

A council comprising members from the regulatory body and market players is proposed to be constituted in 2018-19. The body to be named as National Payments Council of Bhutan will be an

advisory body to guide RMA in modernizing and developing country's payment & settlement systems. It shall also act as a catalyst to overcome coordination problems between the market participants which may hinder attainment of common objectives.

The National Payment Council shall be the professional forum for consultation, designed to facilitate the efficient and stable functioning of the payment system in Bhutan. In the presence of RMA and other regulatory body from Government, the Council may serve as a common platform that provides avenue for representatives from the payment service market to meet and coordinate their interests, set priorities and resolve any misunderstandings.

The Council shall essentially be a strategic, consultative, and communications body whose motive would be to inculcate the development of partnership amongst various stakeholders and PSP's for technological innovations in the payment systems arena.

4.2 Drafting National Payment Systems Strategy document:

Taking into account the rapid developments and innovations in the area of payment systems; it is one of the commitments of the department to formulate a time bound strategy document with the following objectives:

- a) Provide strategic direction in implementing the strategic

priorities envisioned in the Strategy document and

- b) Reflect long-term vision and missions of the RMA.

The Strategy document will serve as a road map for the department in implementing any initiatives related to payment and settlement systems in Bhutan. The document shall remain dynamic and maybe be updated to accommodate the changing priorities and innovation.

4.3 Instituting oversight functions through formal oversight framework:

To ensure the safety, reliability and efficiency of the financial systems, particularly to contain systemic risks which may arise from disruptions in its operations, RMA will institute oversight of payment & settlement systems through formal oversight framework drafted in accordance with the international standards and requirements set by RMA for regulatory and policy decisions.

4.4. Interoperability of QR code

The QR code as one of the alternative payment instrument is recently been gaining popularity among the Bhutanese and the merchant alike. However, the QR codes still operate on a stand-alone basis with no interoperability functions. Therefore, in the coming year RMA is expected to work towards creating a common QR network and issuing standardization document for QR code in Bhutan.

4. India



1. Overview

The digital payment ecosystem has made a remarkable growth in recent years in India. A shift from paper / cash to digital is clearly reflected in increase in electronic transactions and reduction in paper clearing.

- The large value and retail payment systems together, posted a YoY growth of 53.20 per cent in volume and 12.80 per cent in value terms during 2018-19.
- In retail payment systems have grown 53.58 per cent and 26.69 per cent in by volume and value terms, respectively during 2018-19.
- In volume terms, paper-based transactions accounted for 4.57 per cent of the total transactions during 2018-19, down from 7.37 per cent in the previous year. Its share in value terms also declined to 2.85 per cent from 3.24 per cent.
- The share of electronic transactions in the total volume of retail payments increased to 95.4 per cent in 2018-19, up from 92.6 per cent in the previous year

The Reserve Bank of India released its “Payment and Settlement System in

India – Vision 2019-2021” on May 15, 2019, after extensive public consultation. The vision document focuses on **EMPOWERING EXCEPTIONAL (E) PAYMENT EXPERIENCE**. It concentrates on a two-pronged approach of, (a) exceptional customer experience; and (b) enabling an eco-system which will result in this customer experience. The document lays down a roadmap for achieving goals for effecting improvements in the payment systems in the country over next two years.

2. Recent Developments - Financial Market Infrastructure

2.1 Real Time Gross Settlement System (RTGS)

2.1.1 Implementation of Positive Confirmation:

In order to provide confidence to the customers using the RTGS system for funds transfer, the Reserve Bank of India (RBI) issued guidelines for implementation of positive confirmation in the RTGS system. This entails sending of positive confirmation to remitters regarding completion of funds transfer, providing an assurance to the remitter that the funds have been successfully credited to the beneficiary account.

2.1.2 Extension of timing for customer transaction:

In view of the increasing customer demand and keeping in mind the industry preparedness, the timings for

customer transactions in RTGS were extended from 4:30 pm to 6:00 pm with effect from June 01, 2019. The final cut-off timings for RTGS however, remained unchanged

2.1.3 Waiver of charges:

In order to provide an impetus to digital funds movement, processing charges and time varying charges levied on banks by RBI, for outward transactions undertaken using the RTGS system, have been waived off by the Reserve Bank. The banks have been advised to pass on this benefit to customers.

2.2 Directions for Central Counterparties (CCPs):

In order to ensure that the Central Counterparties (CCPs) function in an efficient and effective manner, RBI issued the ‘Directions for Central Counterparties (CCPs)’ laying out the (i) Directions on Governance of Domestic CCPs, (ii) Directions on Networth Requirements and Ownership of CCPs and (iii) Directions for Recognised Foreign CCPs. The directions are applicable to domestic CCPs authorised to operate in India under the Payment and Settlement Systems Act, 2007, CCPs seeking authorisation from RBI and Foreign CCPs seeking recognition from RBI.

3. Recent Developments - Retail Payment Systems

3.1 Waiver of Charges in NEFT:

The RBI owns and operates the NEFT, in half hourly batches facilitating fund

transfer. To encourage electronic retail payments, it has been decided to waive the processing charges levied on bank by RBI for transactions processed in NEFT system.

3.2 Prepaid Payment Instruments

3.2.1 Guidelines for pre-paid instruments (PPI) interoperability:

In order to enable the PPIs, issued by banks and authorised non-bank entities, to be used across merchants on-boarded for other payment systems as also for funds transfer between PPIs and bank accounts, guidelines for PPI interoperability were issued. Interoperability for PPIs issued in the form of wallets would be implemented through the Unified Payments Interface (UPI) while for PPIs issued in the form of cards, interoperability would be through the authorised card networks.

3.2.2 Framework to Limit Customer Liability for Non-bank Authorised PPI Issuers:

The Reserve Bank issued guidelines for limiting customer liability in respect of unauthorised electronic payment transactions involving PPIs issued by authorised non-bank PPI issuers. The guidelines prescribe the limits up to which a customer may bear liability against contributory frauds, negligence / efficiency on part of non-bank PPI issuer, third party breach where the deficiency lies with neither the issuer nor the customer, and scenario where the loss is due to negligence of customer. It

specifies the time limit for reporting unauthorised electronic transactions and prescribes the liability accordingly. These guidelines will benefit through an enhanced customer grievance redressal framework and building more trust in digital payments.

3.3 Tokenisation:

In January 2019, RBI issued directions permitting all authorised card networks to offer tokenisation services, irrespective of app provider, use case, etc. and subject to certain conditions and responsibilities, listed therein. The registration for tokenisation service is purely voluntary for customers and they need not pay any charges for availing this service. The facility shall be offered through mobile phones / tablets. "Tokenisation" is a process whereby a card's 16-digit Primary Account Number (PAN) is replaced with a unique alternate code (called as "token"). This token is unique for a combination of card, token requestor (i.e., third party app provider) and device (i.e., mobile, tablet, etc.). Thereafter, payment transaction is performed using the token, instead of the actual card data.

3.4 Review of White Label ATMs (WLA) Guidelines:

In order to address the challenges faced by the White Label ATM (WLA) operators and to work towards smoother WLA operations, a comprehensive review of the WLA guidelines was undertaken, and accordingly, a circular on 'White Label

ATMs (WLAs) in India - Review of Guidelines' was issued on March 7, 2019. It permits all White Label ATM Operators (WLAOs) to buy wholesale cash directly from the Reserve Bank (Issue Offices) and Currency Chests, to source cash from any scheduled bank, to offer bill payment and Interoperable cash deposit services subject to technical feasibility and certification by NPCI, and display advertisements pertaining to non-financial products / services anywhere within the WLA premises (except the main signboard). Permission granted to WLAOs earlier to source cash from retail outlets has now been repealed. Banks may issue co-branded ATM cards in partnership with the authorised WLA.

3.6. Other initiatives:

3.6.1 Committee on Deepening of Digital Payments:

RBI constituted a High-Level Committee on Deepening of Digital Payments (CDDP), to accelerate digitisation of the economy and financial inclusion through greater use of digital payments. The terms of reference of the Committee included a medium-term strategy for deepening of digital payments. The Reserve Bank will examine the recommendations of the Committee and will dovetail the action points, wherever necessary, in its Payment Systems Vision 2021 for implementation.

3.6.2 Policy paper on Authorisation of New Retail Payment Systems:

With an objective to minimise concentration risk in the retail payment market from a financial stability perspective and to give a fillip to innovation and competition, RBI placed a policy paper on 'Authorisation of New Retail Payment Systems' on the Reserve Bank's website and invited public comments. Based on feedback, policy guidelines will be issued.

3.6.3 Benchmarking India's Payment Systems:

The Reserve Bank has undertaken an exercise of benchmarking India's Payment Systems vis-à-vis payment systems in a mix of advanced economies, Asian economies and the BRICS nations. The analysis was attempted under 41 indicators covering 21 broad areas including regulation, oversight, payment systems, payment instruments, payment infrastructure, utility payments, Government payments, customer protection and grievance redressal, securities settlement and clearing systems and cross border personal remittances.

3.6.4 Ombudsman Scheme for Digital Transaction – 2019:

The Reserve Bank introduced the Ombudsman Scheme for Digital Transactions, 2019 with the objective to facilitate the satisfaction or settlement of complaints regarding digital transactions undertaken by customers of System Participants. The Ombudsman for Digital Transactions shall receive and consider

complaints relating to deficiency in services of Prepaid Payment Instruments and Mobile / Electronic Fund Transfers on the grounds specified irrespective of the pecuniary value. The ombudsman shall, to the satisfaction of the parties involved, dispose of the complaint through: (i) Settlement by agreement between parties; (ii) Conciliation and mediation between parties; (iii) Passing an Award as per the provisions of the Scheme.

5. Maldives



1. Recent Developments

The Maldives Monetary Authority (MMA) is leading an initiative to transform the payment landscape in the Maldives by establishing an all-inclusive payment system enabling fast, secure and convenient payments. The primary objective of this project is to increase financial inclusion for engagement in economic activities through establishing a fast, convenient, secure and reliable payment infrastructure that would address the existing issues in the payment system by facilitating the users to make and receive payments instantly irrespective of where they live or bank. It is also aimed at establishing a level playing field for the banks and other potential payment service providers which will promote electronic payment

services. The new payment infrastructure will be open and flexible to accommodate and foster innovation and competition in the Maldivian payment domain.

1.1 Infrastructure:

The core infrastructure, Unified Payment Gateway (UPG) will be an open, API-based modular system consisting of an account-based, real-time payment system augmented with the functionality of smart addressing.

The system will be designed to cater to an environment in which there will be two types of major players: account information providers (AIPs) and payment service providers (PSPs). AIPs include all institutions that hold customer accounts used in the payment process, either directly or indirectly through a third party. PSPs are institutions that provide payment solutions built on top of the payment infrastructure, possibly utilizing the information provided by AIPs. The core infrastructure will include three main components: the UPG, smart addressing and a clearing service.

1.1.1 Unified Payment Gateway:

The UPG will facilitate AIPs to provide account information through the gateway to PSPs based on set of system rules that are in line with the legal framework. All banks in the Maldives will be directly linked to the system, which will facilitate PSPs in offering innovative payment services to their customers. The UPG

will enable customers to view and manage multiple bank accounts through a single interface, consolidating various banking features, including seamless fund routing and merchant payments.

1.1.2 Smart Addressing

Smart addressing will allow customers to make payments using easy-to-remember tokens and identifiers such as national identification numbers, mobile numbers, email addresses and social media handles. The sharing of bank account numbers and other sensitive information may no longer be required.

1.1.3 Clearing System

The clearing service will allow real-time multilateral clearing of payment orders between AIPs. This will allow the customers to access the funds in real-time and use it immediately 24 hours a day and 7 days a week.

1.2 Payment Solutions

1.2.1 Digital Payment Solutions:

An essential part of the project also includes development of multiple digital solutions which will allow users to make and receive payments instantly irrespective of where they hold their bank accounts in the Maldives. A digital solution simply provides the facility of making payments without other add-on services or functionality. The solution will utilize the accounts structure within the system, meaning that all entities in the Maldives will have a fast and reliable option for making payments. Users accounts will be linked to their

respective bank accounts, and funds can be transferred between the central system account and bank accounts in a number of ways.

1.2.2 Integrated Payment Solutions

Similarly, introducing various integrated solutions to cater for selected segments of the payments domain is also an important aspect of the project. Integrated payment solutions will seamlessly combine the payment process and provide convenient and value-added solutions. Strategic areas with a lack of market driven incentives and areas with potential for maximum impact on users will be prioritized when deciding on the underlying use-cases of the solutions.

1.3 Impacts on stakeholders

1.3.1 Consumers:

- Access to payment services no longer restricted by physical location.
- Quick and convenient payments possible using easy-to-remember identifiers.
- Consumers may no longer need to share their bank account and other sensitive details.
- All payments executed from a single account instead of requiring multiple payments wallets.

1.3.2 Businesses

- No longer restricted to business hours.
- More convenient tracking and payment reconciliation.

- Improved cash flow management because of quick realization of sales proceeds.

Nepal



1. Overview

Nepal Rastra Bank (NRB), as a regulatory authority is solely authorized for regulation and supervision of Bank and financial Institutions including Payment Systems in the country. Article (4) of Nepal Rastra Bank Act, 2002 (NRB Act), has laid down the development of a Secure, Healthy and Efficient payment system in Nepal as an objective. Article (5) of NRB Act provides authority to establish and promote the payment systems, clearing and settlement activities and to regulate those Payment Systems.

To fulfil the objectives laid down in the NRB Act, Nepal Rastra Bank is doing its best to regulate and promote the payment systems. Nepal Rastra Bank has taken different important initiatives to achieve the above mentioned objectives. One of the major initiatives, is the formulation of the National Payment Systems Development Strategy (NPSDS, 2014). The Strategy has identified the need for RTGS and gradual implementation of National Payment Gateway / Switch for efficient and secured Payment system in Nepal.

The legal framework for Payment System in Nepal currently consist of NRB Act, the Banks and Financial Institutions Act, Payment and Settlement Act, 2019, the Payment and Settlement Bylaw, Nepal Payment System Development Strategy and Licensing Policy for Institutions and Mechanisms Operating Payment Related Activities, Payment System Oversight Framework etc.

The Payment System of Nepal is mostly bank led model. The basic payment infrastructure provided by banks and financial institutions of Nepal. Apart from bank and financial institutions, there are non-bank institutions which are a part of payment system of Nepal. Such non-bank financial institutions are categorized as Payment Service Providers (PSPs) and Payment System Operators (PSOs).

NRB has Payment System Department, responsible for licensing and oversight of Payment Systems of Nepal. Till date, NRB has provided license to 56 institutions including AÚ class Banks, BÚ class Development Banks, CÚ class Finance Companies, PSOs, and PSP's, E-sewa, IME Pay etc. Furthermore, 36 non-BFIs have been provided Letter of Intent (LOI) to operate the payment service related activities. Electronic Cheque Clearing (ECC), Inter Bank Payment System (IPS) and connected IPS are operated by Nepal Clearing House Limited (NCHL). The daily

average volume of ECC is around 47000 cheques per day, 11000 transactions per day for IPS and around 1100 transactions per day for connect IPS. NCHL is also working on National Payment Interface to facilitate the single interfacing for NCHL products by the client.

By all these efforts, digital payment activities and practice of using cards and other mode of transactions including mobile financial services is increasing gradually. The Nepalese payment system has 3049 ATM terminals; 5,962,838 debit cards; 100,527 credit cards; 64,484 prepaid cards; 6,394,916 mobile banking users and 856,695 internet banking.

Enactment of Payment and Settlement Act, 2019 will further foster to strengthen the digital payment system in Nepal. At present, Payment Service Providers (PSPs) are providing digital financial services to their customers through wallets and other product innovations. This will enable and increase the coverage and access of digital service to remote geographical areas of Nepal. Digital Payment Technology is fast moving with a lot of innovations and it is reachable to all walks of life. NRB is also making efforts to minimize the associated risks to make the payment systems secure, healthy and safeguard customer protection.

2. Recent Developments

2.1 Real Time Gross Settlement System:

Nepal Rastra Bank is installing RTGS system in its premises which is expected date of go live in mid-September, 2019. The RTGS is expected to facilitate real time transaction on large value payment as well as time critical payment.

2.2 National Payment Switch / Gateway:

NRB is in the process of completing the study on National Payment Switch / Gateway which is expected to be completed in mid-July, 2019 and will facilitate NRB to install National Payment Switch / Gateway.

2.3 National Retail Payment Strategy:

NRB is also in process of drafting a National Retail Payment Strategy. The strategy will further strengthen policy on Retail Payment Services.

7. Pakistan



1. Overview

During the last few years, Pakistan has witnessed substantial developments in both Large Value and Retail Payment Systems. State Bank of Pakistan (SBP) has taken a number of initiatives for developing payments infrastructure and providing an enabling regulatory environment with the objective of improving interoperability, while at the same time, providing more payment options to general public as well as

private and public sectors in the country. The performance analysis of PS for FY 2018-19, and major achievement in the area of Payment Systems are summarized in sections below.

2. Payment and Settlement Systems - Analysis

The payment systems infrastructure is continuously expanding especially for supporting e-Payments in Pakistan. As on December 31 2018, there are 15,464 bank branches and except 27, all branches are providing online banking services to their customers. There are 14,361 ATMs and 49,261 POS machines in the country. In addition to these, banks are also providing Internet, Mobile and Call Centre Banking facilities.

During the first half of FY18-19, 654.5 million transaction valued at Rs.295.1 trillion have been reported by Banks for various payment systems channels that include PRISM, e banking and paper based. E-Banking channels i.e. RTOBs, ATM, POS, Mobile Phone, Internet and Call Centers Banking as well as e-Commerce altogether processed 419 million transactions of value Rs.27 trillion. In the total e-Banking transactions, RTOBs has the highest share of approximately 84% in value of transactions whereas, the highest share (approximately 62%) for the volume is contributed by ATM transactions.

In Pakistan, 28 banks are offering Internet Banking service and there are 3.3 million Internet Banking users

registered with banks. During the first six months, 19.2 million transactions of value Rs.813.7 billion were processed through Internet Banking. In addition, 21 banks are providing Mobile Phone Banking facility to their customers' with the number of register Mobile Phone Banking users 3.9 million. These users processed 15.7 million transactions of value Rs.294.9 billion using Mobile Phone Banking Apps.

As on December 31, 2018, the total number of payment cards issued in Pakistan was 41.7 million. In the total number of reported cards, the number of Debit Cards was 23.3 million (55.9%), proprietary ATMs Cards was 8.8 million (21.1%), Credit Cards 1.5 million (3.7%), Pre-Paid cards was 0.2 million (0.6%) and Social Welfare Cards was 7.8 million (18.8%). During first six months, 299.6 million transactions of valuing Rs.3.3 trillion were processed by these Cards, of which transactions processed by Debit Cards has the highest share of 80.7% in volume and 85.5% in value.

3. Recent Developments

3.1 Regulations for Electronic Money Institutions:

SBP, while realizing that current banking sector is inadequate for serving digital payment needs of customers, especially those who are financially excluded, have issued regulations for Electronic Money Institutions (EMIs). These regulations are issued with an objective to provide enabling regulatory framework to non-

banking entities like FinTechs to foray into payments landscape. EMI's will offer innovative, user-friendly and cost-effective low value digital payment prepaid instruments like wallets, prepaid cards, and contactless payment instruments including wearables to consumers. These EMI's are expected to be instrumental in offering innovative payment instruments that will digitize cashless payments like merchant checkouts, e-commerce, government receipts, bill payments, cross border remittances etc.

3.2 Security of Digital Payments:

To safeguard banks / MFBs and their customers from potential losses due to cyber-crimes and online banking frauds, SBP issued a comprehensive set of instructions – advising banks to take pre-emptive measures and ensure security of card data. Some of the directives are outlined as follows:

- Banks shall immediately carry out extensive compromise assessment and penetration testing to identify potential weaknesses in their Alternate Delivery Channels (ADCs) and payment systems including Card Systems, RTGS, SWIFT, Internet / mobile banking and Agent-based / Branchless Banking etc.
- Banks shall send free of cost transaction alerts to their customers through both SMS and email (where email IDs are available) for all

international and domestic digital transactions.

- Banks shall activate/reactivate online banking services including internet/mobile banking for their customers after biometric verification.
- All card-issuing banks shall acquire / upgrade the capability to enable their customers to activate or block their cards for online / cross-border transactions.
- All card issuing / acquiring banks shall deploy real-time fraud monitoring tools and alert mechanisms, preferably provided by their Payment Schemes, to detect potential fraudulent activities on their Card Systems.
- Banks shall make arrangements to monitor on 24/7 basis usage/activity regarding payments made through their cards or through online transactions on their internet banking platforms.
- If a bank realizes that its customers' data has been compromised, the bank shall immediately take steps to protect their customers from further losses and inform them within 48 hours about the steps being taken by the bank. In case of a financial loss to customers, the bank shall compensate them within two (02) business days.

3.3 New PRISM Operating Rules:

Since the issuance of PRISM Operating Rules in 2009, significant developments with regards to PRISM operations have been made including 3rd Party Fund Transfers, Straight Through Processing (STP), interbank fund transfer of home remittances, Membership of Clearinghouse for Microfinance banks and Central Directorate of National Savings, Direct Membership of PRISM for Islamic Banking Branches of conventional banks, salary disbursements, vendor payments, profits on premium bonds, small prize money on Prize Bonds, digitization of government payments etc. Further, PRISM System was also upgraded in 2017, which has introduced enhanced features for PRISM participants including revised Intraday Liquidity Facility criteria; efficiency in monitoring and managing funds and securities balances simultaneously, easy reconciliation process etc. Accordingly, SBP, in consultation with stakeholders issued the subject rules, which are in line with international standards and offer directions related to PRISM (RTGS) business operations.

3.4 Electronic Funds Transfer Regulations:

Electronic Fund Transfers (EFT) enable customers to access their bank accounts electronically for fund transfers using different channels like ATMs, internet and mobile banking etc. SBP issued Regulations for EFTs with the purpose to

ensure consumer protection and payments transparency by standardizing EFTs as broadly outlined in PS&EFT Act 2007. These regulations identify the minimum information of originator and beneficiary required to initiate/process an EFT, highlight the responsibilities of originator, Payment System Operators (PSOs) / Payment Service Providers (PSPs) and beneficiary compensation policy for unauthorized and / or delayed EFTs, disclosure requirements and dispute resolution process etc.

3.5 Micro Payment Gateway (MPG):

SBP in partnership with a subsidiary of Bill & Melinda Gates foundation, is working on developing a Micro Payment Gateway (MPG) for providing interoperable payment options for all types of retail value payment transactions. MPG architecture will be based on open platform and open API to facilitate integration of non-banks and other FinTech companies with payments and financial sector.

3.6 Facilitation of FinTechs in Pakistan:

The emergence of FinTech companies in recent years has gained traction globally. In Pakistan also, a number of new technology enabled FinTech companies have started foray in the financial services sector. However, these companies are facing difficulties because of the lack of adequate regulations, knowledge about risks and adequate regulatory support. To address

these issues, the Payment Systems Department of SBP is proactively facilitating these FinTechs by engaging with them on a continuous basis, through an open door policy, with the objective of enabling these entities while at the same time adequately identifying and addressing the risks of their offerings. For this purpose, SBP has taken a number of steps including establishing an Innovation Challenge Fund facility, planning Ideathon and working on proposal relating to formal establishment of a regulatory sandbox. SBP plans to continuously monitor the growth and prevalence of these FinTechs not just nationally but globally as well, especially at regional levels, SBP will like to engage the SAARCG countries to learn and share mutual experiences.

8. Sri Lanka



1. Recent Developments

The Central Bank of Sri Lanka (CBSL) continued with its goal of developing a less-cash society by improving access to electronic payments and the security and reliability of electronic payment infrastructures and electronic payment innovations.

1.1 Common Card and Payment Switch:

The Common Card and Payment Switch (CCAPS) “LankaPay”, which was launched in 2013 in phases continued its journey towards completion. CCAPS, which is designated as the National Payment Switch of the country, consists of five switches i.e. Common ATM Switch (CAS), Common Electronic Fund Transfer Switch (CEFTS), Shared ATM Switch (SAS), Common POS Switch (CPS) and Common Mobile Switch (CMobS), which are launched in phases.

1.1.1 Common ATM Switch (CAS):

The switch which started live operations in 2013, includes all card issuing banks as its members. CAS connects ATMs of member financial institutions, enables customers of such financial institutions to perform cash withdrawals and balance inquiries from any ATM connected to the CAS network. All ATMs in CAS network are required to be EMV enabled in order improve security. Further, to ensure the success of CAS, CBSL imposed a multi-tier liability manager limit structure to reduce the number transaction rejections.

1.1.2 Common Electronic Funds Transfer Switch (CEFTS):

The switch which is the second phase of CCAPS, was implemented on August 2015. CEFTS provides a common infrastructure to clear payments effected through multiple payment channels such as ATM, Internet Banking, Mobile Banking, Kiosks and over-the-counter.

All licensed commercial banks are now members of the CEFTS.

1.1.3 Lanka Pay Online Payment Platform (LPOPP):

The platform was launched on 20 July 2017 to facilitate real time payments to Sri Lanka Customs. The demand of real-time payments for Government services led to five more governmental institutions joining LPOPP by mid-2019.

1.1.4 National Card Scheme (NCS):

The scheme was launched on 24 June 2019, launching the fourth phase of CCAPS, the Common Point of Sale Switch (CPS). The NCS aims to facilitate introduction of low cost payment card products. The NCS enables banks to issue LankaPay-JCB co-badged cards. All local currency transactions would be processed through the LankaClear payment infrastructure while foreign currency transaction processed through JCB International. The Common POS Switch, will commence live operations after implementation of the national card scheme.

1.2 E-commerce / mobile applications:

CBSL further strengthened the regulatory framework relating to e-commerce and mobile applications (apps) based payments in 2018/2019. During 2018 the CBSL issued a Direction on Acquiring Payment Card based Electronic Commerce Transactions through Service Providers to stipulate conditions on acquiring payment card based transactions through Service

Providers in order to ensure timely payments to merchants and to safeguard the interests of cardholders. Further, a guideline on Minimum Compliance Standard for Payment Related Mobile Applications was issued to set minimum compliance standards for Mobile Applications used by Financial Institutions to provide payment services. To further enhance the security of card transactions, the CBSL issued in circular in February 2019 making it mandatory for all new account holders receive real time notifications for electronic payments. This rule is optional for existing customers, however, all customers were encouraged to obtain real time notifications to improve the safety of the electronic transactions.

1.3 Adopting technology:

The CBSL continued working on adopting technological advancements in payments and settlement systems. Accordingly, the National Payments Council, the consultative committee on payment and settlement systems, appointed two committees to study developments in the financial technology (FinTech) sector and Blockchain technology. As per the recommendations made by the Fintech Committee, two circulars were issued for the National Quick Response (QR) Code Standard for Local Currency Payments. In addition, as per another recommendation made by the FinTech

Committee, initiated actions to establish a FinTech Regulatory Sandbox to provide an environment that supports and promotes the financial technology innovations in the country while maintaining appropriate regulatory standards. The Fintech Committee also is studying the areas of Open APIs, Virtual Banking, Shared KYC The

working committee appointed as per the recommendation of the Committee on Blockchain Technology to further study the adoption of blockchain technology in the financial sector evaluated the feasibility of a shared KYC blockchain solution to be used in the banking sector and submitted its report to CBSL.

SAARC Payment Statistics

Basic Statistical Data

Population (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	28.1	28.6	29.2	29.7	31.6
Bangladesh	159.4	161.2	163.0	164.7	166.4
Bhutan	0.8	0.8	0.8	0.8	0.8
India	1267.0	1283.0	1299.0	1316.0	1333.0
Maldives	0.4	0.5	0.5	0.5	0.5
Pakistan	188.0	191.7	195.4	207.7	220.7
Sri Lanka	20.8	21.0	21.2	21.4	21.7

GDP (billion USD)					
Country	2014	2015	2016	2017	2018
Afghanistan	20.6	19.3	19.6	19.9	19.9
Bangladesh	173.1	194.5	220.8	245.6	269.6
Bhutan	1.7	1.9	2.0	2.3	2.4
India	2001.6	2085.7	2223.7	2548.7	2707.5
Maldives	3.7	4.1	4.4	4.9	5.4
Pakistan	271.8	283.2	305.0	328.7	317.5
Sri Lanka	79.4	80.6	82.4	88.0	88.9

Exchange Rate vs USD (end of year)					
Country	2014	2015	2016	2017	2018
Afghanistan	58.19	67.66	66.83	69.37	75.76
Bangladesh	77.95	78.51	78.7	82.7	83.9
Bhutan	61.47	62.05	66.32	66.43	65.09
India	63.19	66.15	67.92	63.88	69.60
Maldives	15.4	15.41	15.35	15.41	15.41
Pakistan	100.82	104.66	104.72	108.70	138.47
Sri Lanka	131.05	144.06	149.80	152.85	182.75

Exchange Rate vs USD (average)					
Country	2014	2015	2016	2017	2018
Afghanistan	57.49	61.48	67.93	68.2	72.44
Bangladesh	77.61	77.95	78.47	80.44	83.47
Bhutan	61.03	64.14	67.19	65.1	68.4
India	61.02	64.18	67.20	65.13	68.42
Maldives	15.38	15.37	15.37	15.39	15.39
Pakistan	100.95	102.65	104.66	105.33	121.44
Sri Lanka	130.56	135.94	145.60	152.45	162.50

Currency in Circulation and Payment Infrastructure

Currency in Circulation (USD million)					
Country	2014	2015	2016	2017	2018
Afghanistan	3598.29	3422.45	3291.44	3352.13	3150.27
Bangladesh	11665.80	12996.88	15720.21	17489.62	18972.21
Bhutan	136.25	146.66	155.39	173.04	172.94
India	227764.12	244616.22	139643.74	259986.64	295963.14
Maldives	201.26	209.00	211.31	226.89	238.09
Pakistan	24090.29	29565.04	34181.99	39112.73	39103.74
Sri Lanka	3193.13	3617.04	3796.55	3922.95	3944.26

Number of ATMs					
Country	2014	2015	2016	2017	2018
Afghanistan	138	175	209	248	341
Bangladesh	6256	7839	9019	9522	10355
Bhutan	124	150	150	188	246
India	182687	205328	219793	221832	220051
Maldives	NA	NA	98	116	127
Pakistan	9018	10736	12352	13409	14361
Sri Lanka	3344	3572	3874	4206	4618

Number of POS Terminals					
Country	2014	2015	2016	2017	2018
Afghanistan	396	432	311	182	170
Bangladesh	26503	30336	32953	37379	45896
Bhutan	220	471	469	759	779
India	1058642	1245447	1767733	3027382	3592424
Maldives	NA	NA	5715	6897	7590
Pakistan	34945	50072	52062	52506	49621
Sri Lanka	34904	40539	43355	48828	62652

Payment System Statistics – RTGS and Paper Clearing

Large Value (RTGS) - Volume (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	0.14	0.13	0.15	0.16	0.16
Bangladesh	-	-	0.23	0.79	0.86
Bhutan	NA	NA	NA	NA	NA
India	89.93	97.27	103.17	120.94	134.57
Maldives	0.05	0.06	0.08	0.12	0.14
Pakistan	0.71	0.85	0.99	1.40	2.20
Sri Lanka	0.32	0.32	0.37	0.38	0.41

Large Value (RTGS) – Value (USD billion)					
Country	2014	2015	2016	2017	2018
Afghanistan	19.3	12.8	13.7	14.8	16.0
Bangladesh	-	-	145.0	249.4	48.5
Bhutan	NA	NA	NA	NA	NA
India	12194.0	12374.3	14044.0	17144.6	18944.1
Maldives	49.5	88.0	114.2	118.5	116.8
Pakistan	1446.7	2186.6	2275.3	3198.3	3088.5
Sri Lanka	456.1	621.1	641.3	605.5	618.3

Paper - Volume (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	0.007	0.005	0.004	0.004	0.003
Bangladesh	25.12	22.83	22.20	23.17	23.26
Bhutan	0.12	0.14	0.13	0.20	0.17
India	1211.19	1116.91	1112.92	1240.14	1140.85
Maldives	NA	NA	1.85	1.86	1.8
Pakistan	365.37	349.88	392.50	463.60	464.84
Sri Lanka	48.05	49.33	52.00	51.96	50.35

Paper - Value (USD million)					
Country	2014	2015	2016	2017	2018
Afghanistan	44.6	33.0	23.7	25.8	19.8
Bangladesh	184379.3	198869.3	229359.0	253998.9	274912.7
Bhutan	0.9	2.1	2.0	2.3	2.5
India	1422193.8	1298739.7	1177055.6	1272489.7	1211923.2
Maldives	NA	NA	9385.0	11502.5	11531.2
Pakistan	1232990.1	1227552.8	1284958.8	1374204.7	1037295.1
Sri Lanka	58520.7	62042.1	65944.3	68756.4	64790.1

Payment System Statistics – Credit Transfers & Direct Debit

Credit Transfer - Volume (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	NA	NA	NA	NA	NA
Bangladesh	9.82	13.16	14.15	17.00	22.31
Bhutan	0.044	0.046	0.072	0.135	0.136
India	1263.52	2691.06	3700.85	5272.78	9924.75
Maldives	NA	NA	3.29	5.61	10.13
Pakistan	271.26	268.35	239.43	233.16	264.72
Sri Lanka	131.30	154.70	184.14	213.61	246.36

Credit Transfer - Value (USD million)					
Country	2014	2015	2016	2017	2018
Afghanistan	NA	NA	NA	NA	NA
Bangladesh	7078.5	10368.6	11465.8	14854.5	18440.3
Bhutan	NA	3.3	3.9	4.9	9.4
India	13158970.1	13635279.6	15736985.1	19779570.5	22507456.9
Maldives	NA	NA	2051.8	3189.4	4597.8
Pakistan	1286883.4	1297159.4	1207408.1	1221507.7	1187101.5
Sri Lanka	530663.8	702505.9	730367.0	701815.4	716777.7

Direct Debit - Volume (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	NA	NA	NA	NA	NA
Bangladesh	0.39	0.60	0.95	1.64	2.49
Bhutan	NA	NA	NA	NA	NA
India	218.96	273.44	340.60	445.65	589.56
Maldives	NA	NA	0.09	0.11	0.17
Pakistan	NA	NA	NA	NA	NA
Sri Lanka	0.009	0.014	0.014	0.015	0.013

Direct Debit - Value (USD million)					
Country	2014	2015	2016	2017	2018
Afghanistan	NA	NA	NA	NA	NA
Bangladesh	627	842	1202	1724	2200
Bhutan	NA	NA	NA	NA	NA
India	27316	35179	50416	69963	89775
Maldives	NA	NA	7	54	93
Pakistan	NA	NA	NA	NA	NA
Sri Lanka	23	46	86	91	91

Payment System Statistics – Card Payments

Debit Card Payments - Volume (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	0.00	0.00	0.01	0.00	0.01
Bangladesh	81.48	126.57	157.80	164.91	195.21
Bhutan	NA	NA	NA	NA	0.06
India	749.33	1064.28	1875.57	3292.66	4188.98
Maldives	NA	NA	10.19	12.59	19.70
Pakistan	NA	NA	NA	403.60	471.70
Sri Lanka	22.70	30.69	38.08	46.96	56.60

Debit Card Payments - Value (USD million)					
Country	2014	2015	2016	2017	2018
Afghanistan	0.2	0.4	2.9	0.0	0.6
Bangladesh	7964.4	12327.5	14687.5	15300.9	17021.2
Bhutan	NA	NA	NA	NA	NA
India	18939.0	23088.8	37262.3	70724.4	82485.5
Maldives	NA	NA	297.8	471.3	449.9
Pakistan	NA	NA	NA	43016.33	45664.22
Sri Lanka	474.1	611.2	742.1	882.5	976.9

Credit Card Payments - Volume (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	0.01	0.01	0.02	0.00	0.02
Bangladesh	6.03	10.10	12.39	16.22	20.70
Bhutan	NA	NA	NA	NA	0.80
India	584.99	739.33	980.76	1348.47	1671.30
Maldives	NA	NA	1.70	1.14	1.57
Pakistan	NA	NA	NA	29.80	37.00
Sri Lanka	23.63	26.33	31.86	36.96	43.60

Credit Card Payments - Value (USD million)					
Country	2014	2015	2016	2017	2018
Afghanistan	0.4	3.8	27.5	0.4	3.2
Bangladesh	567.1	836.3	964.9	1193.6	1428.4
Bhutan	NA	NA	NA	NA	27.8
India	29597.6	35348.8	44359.2	66078.5	82673.5
Maldives	NA	NA	148.2	111.6	133.2
Pakistan	NA	NA	NA	1992.87	1728.44
Sri Lanka	1030.8	1134.0	1250.7	1302.3	1488.0

Payment System Statistics – Cards Outstanding

Debit Cards Outstanding (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	0.14	0.18	0.25	0.34	0.51
Bangladesh	7.69	8.62	9.95	11.65	14.09
Bhutan	NA	NA	NA	NA	NA
India	500.08	643.19	764.43	842.47	958.15
Maldives	NA	NA	0.25	0.39	0.43
Pakistan	24.66	31.13	24.28	28.23	32.11
Sri Lanka	13.59	15.24	17.73	19.70	22.33

Credit Cards Outstanding (million)					
Country	2014	2015	2016	2017	2018
Afghanistan	0.001	0.001	0.001	0.002	0.002
Bangladesh	0.633	0.620	0.947	0.909	1.108
Bhutan	NA	NA	NA	NA	NA
India	20.360	22.747	28.321	35.496	44.214
Maldives	NA	NA	0.020	0.023	0.027
Pakistan	1.332	1.394	1.209	1.374	1.522
Sri Lanka	1.033	1.145	1.316	1.487	1.715

Note: Nepal Rastra Bank is in the process of installing Supervisory Information System to collect the required payment related data from Banks and Financial Institutions and Non-Bank Payment system operators / Payment service providers. It was, therefore, not able to provide the data at this point.

Glossary of Key Terms

Sr No	Table	Term	Definition
1	Basic Statistical Data	Population	The total number of inhabitants in the country.
2		GDP	Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. The GDP at current prices should be submitted.
3		Exchange Rate	Value of once currency in terms of another currency. The exchange rate of the country against USD should be submitted.
4	Currency in Circulation	Cash or currency in Circulation	Currency in circulation is a currency that is physically used to conduct transactions between consumers and businesses rather than stored in a bank, financial institution or central bank. This includes both Banknotes in circulation and coins in circulation.
5	Payment Infrastructure	ATM	Automated teller machines (ATMs) are terminals that allow authorised users, typically by using a card, to access a range of services such as cash withdrawals, balance enquiries, transfers of funds and/or acceptance of deposits.
6		PoS	Point of sale (PoS) terminals are devices typically used at a retail location to capture payment information electronically.
7	Payment System Data – Volume and Value	Large Value Payment system	Large value payment systems or Wholesale payment systems are payment systems that are used to settle large value of money.
8		Paper	Paper based payment instruments such as Cheques are based on written orders from one party (the drawer) to another (the drawee, normally a bank) requiring the drawee to pay a specified sum on demand to the drawer or to a third party specified by the drawer.
9		Credit Transfer	Credit transfers are payment instruments based on payment orders or possibly sequences of payment orders made for the purpose of placing funds at the disposal of the payee. Both the payment orders and the funds move from the payer's institution to the payee's institution, possibly via several other institutions as intermediaries and / or one or more payment systems.
10		Direct Debit	Direct debits are payment instruments based on preauthorised debits, possibly recurrent, of the payer's account by the payee.

Sr No	Table	Term	Definition
11		Cards	Cards are payment instruments based on a unique number that can be used to initiate a payment, cash withdrawal or cash deposit that is processed using / over a card scheme or – for withdrawals and deposits at the ATM – within the network operated by the issuer of the card.
12		Credit Card	Credit Cards are Cards that permit undertaking a transaction (purchase, cash withdrawal) on credit with the money involved deducted at a later date.
13		Debit Card	Debit Cards are Cards wherein the transaction amount (purchase, cash withdrawal) is deducted immediately from the linked bank account.
14		Card Payments	Credit Card and Debit Card transactions to make payments (purchase of goods and services) at PoS terminals and online
15		Volume	The total number of payment transactions undertaken.
16		Value	The corresponding value involved in the payment transaction undertaken.
17	Payment System Instruments	Cards Outstanding	The total number of cards that are issued and currently active in the payment ecosystem in the country