

## 2 Payment System

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Considering the importance of Payment Systems for the economy, SBP Vision 2020 envisioned to develop a modern and robust payment systems as a key strategic objective. SBP aims to improve coverage, efficiency, innovation, and operations of Pakistan's payments systems with major focus on financial stability that contributes towards proper functioning of economy and its growth. During recent years, Payment System Department (SPD) has taken various initiatives to accomplish SBP Vision 2020.

### 2.1 Payment Infrastructure in Pakistan

The large value Payment Systems in Pakistan facilitates clearing and settlement of interbank payments, government and corporate securities and other critical financial transactions. On the other hand, retail payments systems have become crucial for the provision of digital financial services to the public to enable them to undertake transactions anytime, anywhere electronically. Following are major systems and institutions that are playing a key role in country's Payment and Settlement landscape:

- Pakistan Real-time Interbank Settlement Mechanism (PRISM i.e., RTGS of Pakistan)
- National Institutional Facilitation Technologies (Pvt) Ltd. (NIFT provides cheque clearing facility)
- 1-Link (provides ATM, IBFT and Utility Bill Payment Switches)
- National Clearing Company of Pakistan (NCCPL) (provides clearing and settlement services for capital markets)

The retail payment systems also include various e-banking products, services and channels such as ATMs, POS network, Internet banking, mobile banking and call centers/ IVR.

### 2.2 Overview of Digital Payments in Pakistan

Pakistan has witnessed substantial developments during recent years in both large value and retail payment systems due to SBP initiatives to promote digital financial services (DFS). Cashless/ digital payments have seen a rise in the country due to the development of digital payment platforms, a conducive regulatory environment for banks and payment system operators for improving Alternate Delivery Channels (ADCs) across various market segments. At present, 32 Banks, 11 Microfinance Banks (MFBs), 2 specialized Banks and 8 Development Finance Institutions (DFIs) are operating in Pakistan. These institutions are operating through a countrywide branch network of 16,066 out of which 14,970 (93.2 percent) are online branches. One ATM Switch i.e., 1-Link and one Automated Clearing House i.e., NIFT for paper based payment instruments are operating as Payment System Operator/ Payment Service Provider (PSO/ PSP).

The large value payment system i.e., PRISM has 43 Direct Participants including 30 Banks, 2 Specialized Banks, 2 MFBs, 8 DFIs and one non-bank i.e., Central Depository Company. The ATM network has grown to 14,019 ATMs at end June 2018 whereas a network of 53,511 POS machines exists in Pakistan. Internet Banking services are currently offered by 28 Banks/ MFBs. Mobile Phone Banking services and Call Center/ IVR Banking are being offered by 21 financial institutions.

### 2.2.1 Analysis of Transactions

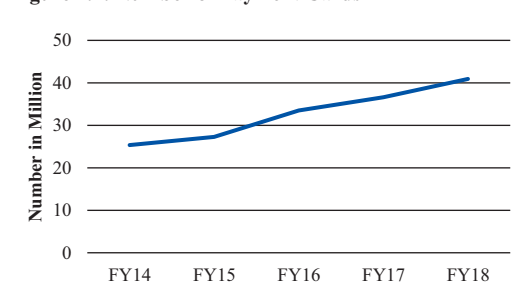
Volume of transactions conducted through PRISM reached 1.7 million valuing Rs 361 trillion in FY18. Third party customer transfer transactions have the largest share in terms of volume with 1.3 million transactions valuing Rs 24.6 trillion whereas, in terms of value, Government Securities trade transactions have the highest value amounting Rs 256.4 trillion, followed by Inter Bank Fund transfer transactions with value share of Rs 65.6 trillion.

### 2.2.2 E-Banking Transactions

During FY18, transactions processed through retail e-Banking channels i.e., Real Time Online Banking (RTOB), ATMs, POS, Mobile Phone Banking, Internet Banking, Call Centers/ IVR Banking and e-Commerce reached 756.4 million transactions valuing Rs 47.4 trillion. RTOB transactions accounted for 84.1 percent in terms of value of transactions with volume share of 21.9 percent whereas ATMs have the largest share of 62.2 percent with value share of 11.7 percent.

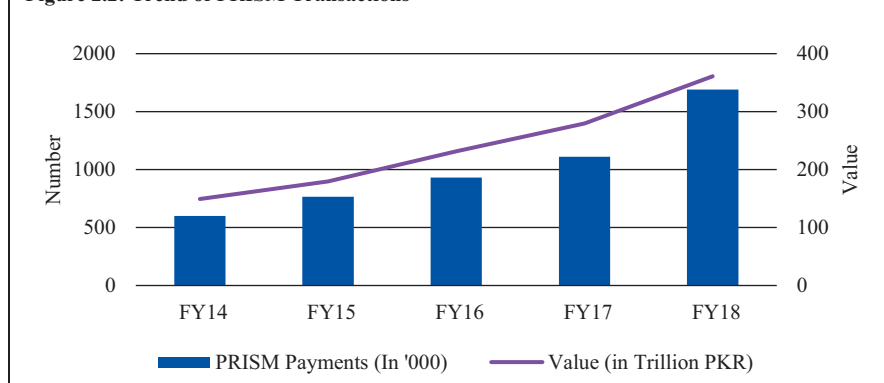
Total number of payment cards (Credit, Debit, Social Welfare and Pre-Paid) issued in Pakistan reached 40.9 million by end June 2018 from 36.6 million in preceding period thereby showing a growth of 11.7 percent. The numbers of issued Debit Cards reached 21.7 million. During FY18, Debit Cards were used in 441.1 million transactions valuing Rs 5.1 trillion. On the other hand, the number of issued Credit Cards reached 1.4 million and the same were used in 35.5 million transactions in FY18 amounting Rs 201.5 billion.

Figure 2.1: Number of Payment Cards



The ATMs processed 470.6 million transactions valuing Rs 5.5 trillion during FY18. Cash withdrawals contributed to majority of ATM transactions both in terms of volume i.e., 446.7 million (94.9 percent) and value Rs 4.84 trillion (87.2 percent). Rest of the transactions pertained to Intra and Inter Bank Fund transfers, Utility Bill Payments and cash/ instrument deposit transactions. The average size of a single ATM transaction was Rs 11,793.

Figure 2.2: Trend of PRISM Transactions



Annual POS transactions reached 63.5 million valuing Rs 297 billion. It is important to mention that apart from merchant payments, five banks are providing cash withdrawals through POS facility whereas 28 banks in Pakistan are offering DFS through Internet Banking to 3.1 million registered Internet Banking users in the country at end June 2018. Internet Banking processed 31.2 million transactions worth Rs 1.2 trillion during FY18.

Mobile Phone/ App based Banking is offered by 21 Banks/ MFBs to 3.4 million registered users in the country. The channel processed 21.8 million transactions valuing Rs 409.8 billion during FY18. The number of local e-Commerce merchants registered with banks reached 1,094. Further, consumers carried out 3.4 million online e-commerce transactions valuing Rs 18.7 billion.

## **2.3 Developments in Government Payment System**

The Government payments and receipts make up a significant part of overall payment system of the country. The Bank is providing necessary technological support and facilitation to the federal and provincial governments in automation and integration of their payments infrastructure. The objective is to bring much needed efficiency in government payment systems and bring it at par with the private sector by providing efficient, reliable, hassle free integrated IT based services. The Bank's key initiatives in this respect included e-cheque reconciliation, initiation of online collection of taxes and duties through ADCs and initiation of project for elimination of cheques from government payments.

### **2.3.1 Collection of Government Duties and Taxes through ADCs**

The Bank in collaboration with FBR and 1-Link successfully developed and implemented the mechanism for collection of FBR duties and taxes through ADCs. A tripartite agreement was signed on October 2, 2017 by SBP, FBR and 1-Link for establishment of an e-payment facility for taxpayers through internet banking, ATMs and banks' mobile applications. The overall mechanism for online collection of taxes was tested end-to-end at SBP, FBR and 1-Link level before it was made live on March 21, 2018. The online tax collection system provides end-to-end solutions for filing of tax returns, payment of taxes, settlement with SBP and subsequent recording and reconciliation with the Government treasury in an automated environment. The system brings efficiency gains by ensuring same day settlement, automatic reconciliation between SBP and Government treasuries, generating paperless e-scrolls (transactions details) for treasury and Computerized Payment Receipts (e-CPRs) for taxpayers.

Under the scheme, the taxpayer visits FBR's (IRIS or WeBOC) websites, files his returns or goods declarations and generates a unique Payment Slip Identity (PSID). The taxpayer then accesses the biller module of his bank, where FBR has been designated as one of the billers, generates the relevant details by entering the PSID number. Subsequent to confirmation of tax payment, the 1-Link system generates a message for IRIS/ WeBOC confirming tax receipt against the particular PSID. The taxpayer can file his return with IRIS or can clear his goods from Customs based on the message generated by 1-Link system. The system though nascent is likely to be used extensively upon taxpayers' confidence and trust. Lately the Over the Counter facility was also made operational for the banks' clients enabling the corporate clients to pay their taxes. It is likely that gradually the bulk of the tax payment would be made through this mechanism.

Going forward, the facility will also be made available for provincial governments enabling them to collect their taxes and duties through ADCs. While negotiations with Finance Department of the Government of Punjab (GoPb) are at an advanced stage for initiation of online collections. Negotiation with other provincial governments will be initiated in FY19. The project will be broadly based on the models already implemented for FBR. For this purpose the GoPb would be required to develop a platform of taxpayers for integration with 1-Link and commercial banks.

The SBP is also working with Controller General of Accounts (CGA) and Accountant General Pakistan Revenues (AGPR) to shift from existing cheque based payments to Direct Credit System (DCS) under a World Bank Group funded project titled 'Public Financial Management and Accountability'. In the first phase, salary and pension of federal government employees will be shifted to DCS; wherein the funds will be credited to the beneficiary accounts in real-time upon receipt of electronic instructions from AGPR.

## **2.4 Ensuring Quality of Banknotes and Efficiency of Currency Management System**

Despite the introduction of the above mentioned e-payment solutions, cash remains a dominant mode of payment. Further, the demand for cash is expected to rise in near future due to a host of factors, which include a fast expanding economy, certain social and cultural preferences and informal economy. In this context, the SBP Vision 2020 has envisioned availability of clean and good quality banknotes with state of the art security features. In this pursuit, the initiatives included the implementation of the Currency Management Strategy, introduction of latest security features in banknotes and exploring innovative techniques to improve the quality and durability of banknotes.

### **2.4.1 Implementation of Currency Management Strategy**

The SBP introduced the Currency Management Strategy in August 2015, which was inter alia aimed at transforming the currency management function from manual to automated environment. The strategy has been designed to enhance banks' capacity to segregate fit and genuine banknotes from unfit, soiled and counterfeit banknotes and to improve the quality of banknotes in circulation. In Phase-I of the strategy, the banks were required to disburse machine-authenticated banknotes of Rs 500 and above denominations to public in 30 big cities only. Upon successful completion of Phase-I in April 2017, Phase-II of the Strategy has been implemented from July 2018, across the country. This would eliminate the possibility of issuance of counterfeit banknotes from banking system besides improving the quality of banknotes in circulation. As at June 30, 2017, 8,687 bank branches and 8,963 ATMs were issuing/dispersing machine-authenticated banknotes.

### **2.4.2 Feasibility Study of Polymer Banknote**

In pursuance of the objectives to identify and introduce more effective and efficient currency products, SBP has engaged the services of the world's major manufacturer of polymer banknotes substrate firm to provide feasibility study with regard to introduction of polymer banknotes in Pakistan. The consultants made a couple visits to SBP and Pakistan Security Printing Corporation (PSPC), held meetings with relevant officials and conducted initial analysis of the feasibility study. The study will include a trial printing on polymer substrate in the banknote printing facility of PSPC. The trial run will help to practically evaluate PSPC's capability for printing of polymer banknotes. The study is expected to be completed by December 2018.

## **2.5 Initiatives of SBP to Promote Digital Payments in Pakistan**

SBP has taken a number of initiatives for developing payments infrastructure and providing an enabling regulatory environment with the objective to promote private sector participation, improving interoperability, besides, providing more payment options to the public. SBP took initiatives that facilitated standardization while bringing operational efficiencies in terms of provision of DFS by promoting ADCs and instruments in partnership with private and public sectors. Following are some of the main areas targeted by SBP for promotion of DFS:

### **2.5.1 Enhancing the Usage of RTGS (PRISM)**

SBP allowed third party fund transfers facility through PRISM (RTGS) to facilitate public specially business community in the country for transferring large value payments in an efficient and prompt manner.

### **2.5.2 NCCPL as a Special Participant of PRISM**

SBP assigned NCCPL as a special participant of PRISM System to settle net position of capital market transactions in PRISM. The decision was taken with a view to enhance existing clearing processes of NCCPL and reduce the associated settlement risk.

### **2.5.3 New PRISM Operating Rules**

SBP recently issued latest PRISM Operating Rules that are aligned with international standards and provide directions related to PRISM business operations. The rules provide detailed criteria about PRISM participation access, settlement, efficiency and effectiveness.

### **2.5.4 National Payment Gateway Program**

SBP initiated a National Payment Gateway (NPG) program to promote interoperability of payments in the country. The NPG program consists of two main components 1) Micro Payment Gateway for retail payments interoperability and 2) Automated Transfer System, which shall consist of RTGS system and integrated Automated Clearing House for bank related bulk payments.

## **2.6 Clearing Operations**

### **2.6.1 Clearinghouse Membership for Central Directorate of National Savings (CDNS)**

SBP allowed CDNS direct membership of NIFT enabling banks to accept at their counters, profit coupons/ withdrawal slips pertaining to Pensioners' Benefit Accounts and Saving Accounts of CDNS.

### **2.6.2 Guidelines for Clearing Operations**

SBP issued guidelines for clearing operations in major areas including roles and responsibilities for Clearing House and its members, timelines to clear and settle various clearing batches, centralized clearing for banks having online branches, compensation policy for consumers and dispute resolution mechanism.

### **2.6.3 Electronic Settlement of 1-Link Clearing through RTGS (PRISM)**

In order to reduce the settlement risk and to enhance efficiency, SBP assigned 1-Link as a Special Participant to settle clearing obligations against ATMs, IBFT, POS and UBPS transactions through PRISM. All member banks are required to maintain adequate funds/ liquidity in their current accounts with SBP based on their existing and future clearing requirements. The member banks failing to settle their obligations within fifteen minutes time period may face penal action under applicable laws.

## **2.7 Legal and Regulatory Framework**

Payment System & Electronic Fund Transfer Act was enacted in 2007 to provide legal basis to SBP for the Payment System Oversight and Supervision in the country. The main objective of the same was to promote efficiency, security and soundness of Payment Systems and entrust SBP with the issuance of rules, regulations, guidelines, circulars, bye-laws, standards or directions as it may consider appropriate.



### **2.7.1 Electronic Fund Transfers (EFT) Regulations**

SBP recently issued Electronic Fund Transfer (EFT) Regulations that encapsulate the minimum information of originator and beneficiary, required in a payment message to initiate/ process an EFT. The EFT facility enables customers to access bank accounts electronically for fund transfers using channels like ATMs, internet and mobile banking. Further, these regulations highlight the originator, PSO/ PSP and beneficiary's responsibilities, preauthorized transfers, compensation policy for unauthorized and delayed EFT, disclosure requirements, periodic statements, dispute resolution processes, record retention and reporting requirements.

### **2.7.2 Payment Systems Designation Framework**

SBP issued Payment Systems Designation Framework to ensure smooth operations and better risk management of the payment systems by PSOs/ PSPs in Pakistan. Payment systems are one of the most critical financial market infrastructures that facilitate the transfer of funds between different financial institutions, whereas, Designated Payment Systems are usually systemically important payment systems (SIPS). Any deficiency in design or disruption in operations of SIPS could adversely affect the functioning of financial markets.

## **2.8 The Way Forward**

Globally, payment systems are undergoing major transformation due to significant advancements in technology. SBP has also embarked upon embracing technology to achieve its agenda of transition to cashless economy by improving digital access to finance in the country. The current initiatives taken for promoting cashless payments, supported by supervisory interventions and innovative ideas, will help catalyze digitization in the country. It is expected that right policy initiatives would steer the country towards digitization of payments and bring economic efficiencies for the benefit of the public.