

# Payment Systems Review

FISCAL YEAR 2017-18

Payment Systems Department

## Table of Contents

<b>1. Overview</b> .....	<b>4</b>
<b>2. Payment Systems in Pakistan</b> .....	<b>4</b>
<b>2.1 Large-Value Payment System</b> .....	<b>5</b>
<b>2.2 Retail Payment Systems</b> .....	<b>6</b>
2.2.1 E-Banking Infrastructure .....	6
2.2.2 E-Banking Transactions .....	7
2.2.3 Paper-based Transactions .....	12
<b>3. Major Developments in Payment Systems</b> .....	<b>13</b>
<b>3.1 Payment Systems Designation</b> .....	<b>13</b>
<b>3.2 Guideline for Clearing Operations</b> .....	<b>13</b>
<b>3.3 New PRISM Operating Rules</b> .....	<b>13</b>
<b>3.4 Electronic Funds Transfers (EFT) Regulations</b> .....	<b>14</b>
<b>3.5 Guidelines for White Label ATM Operators</b> .....	<b>14</b>
<b>3.6 PRISM system Special Participant</b> .....	<b>14</b>
<b>4. Conclusion</b> .....	<b>15</b>

## List of Tables

<b>Table 1 - Payment Systems Snapshot (June, 2018)</b> .....	<b>3</b>
<b>Table 2 - Comparative Summary of Payment Systems</b> .....	<b>4</b>
<b>Table 3 - Payment Systems Infrastructure</b> .....	<b>16</b>
<b>Table 4 - Payment Cards Composition</b> .....	<b>16</b>
<b>Table 5 - Payment System Transactions (Summary)</b> .....	<b>17</b>
<b>Table 6 - PRISM System Transactions</b> .....	<b>18</b>
<b>Table 7 - Real-Time Online Branches (RTOBs) Transactions</b> .....	<b>18</b>
<b>Table 8 - ATMs Transactions</b> .....	<b>19</b>
<b>Table 9 - Internet Banking Transactions</b> .....	<b>19</b>
<b>Table 10 - Mobile Phone Banking Transactions</b> .....	<b>20</b>
<b>Table 11 - Call Center/ IVR Banking Transactions</b> .....	<b>20</b>
<b>Table 12 - Payment Cards Vs. Channel Transactions</b> .....	<b>21</b>

Table 1 - Payment Systems Snapshot (June, 2018)

Items	As on end June, 2018	
Population (Million) <sup>1</sup>	207.77	
Currency in Circulation <sup>2</sup> (Rs. Trillion)	4.6	
Number of Banks' Accounts <sup>3</sup>	50,565,334	
<b>Technology Infrastructure<sup>4</sup></b>		
Basic Telephony Subscribers (Million)	3	
Basic Telephony Tele-density %	1.30	
Cellular Subscribers (Million)	150	
Cellular Tele-density %	72.81	
Broadband Subscribers	58	
Broadband Penetration Rate %	28.27	
3G/4G Subscribers (Million)	56	
3G/4G Penetration Rate %	27.18	
<b>Payment Systems Infrastructure</b>		
Number of Banks (and their branches)	45(14,970)	
Commercial/Specialized <sup>5</sup>	34(13,908)	
Microfinance	11(1,062)	
Number of Banks having:		
ATMs	32	
Point of Sale	9	
Internet Banking	28	
Mobile Phone Banking	20	
Call Center Banking	21	
Number of PRISM System Participants	43	
Number of Registered e-Commerce Merchants	1,094	
Total Number of ATMs	14,019	
Number of ATMs Interoperable Switches	1	
Number of Cash Deposits Machines (CDMs)	52	
Total Number of POS Machines	53,511	
<b>Payment System Transactions 2017-18</b>		
<b>Payment Channels</b>	<b>Volume (Million)</b>	<b>Value (Rs. Billion)</b>
PRISM System	1.7	361,048.2
RTOBs	165.7	39,857.7
ATMs	470.6	5,549.4
POS	63.5	297.0
Internet Banking	31.2	1,262.4
Mobile Phone Banking	21.8	409.8
Call Centers/IVR Banking	0.3	8.7
e-Commerce	3.4	18.7
Paper-based Transactions	466.5	150,362.3

<sup>1</sup> Latest Population Census-2017<sup>2</sup> As on June, 2018 Monthly Statistical Bulletin, SBP<sup>3</sup> As on December, 2017 is used<sup>4</sup> [www.PTA.gov.pk](http://www.PTA.gov.pk) As on June, 2018<sup>5</sup> Includes overseas branches

## 1. Overview

In recent years, the payment and settlement systems of the country has been significantly changing on the account of State Bank of Pakistan (SBP) efforts to promote digital payments as alternative to cash. New regulations such as Payment Systems Designation Framework, Guidelines for Clearing Operations, new rules for PRISM system, Electronic Fund Transfer Regulation and Guidelines for White Labels ATMs have been issued by SBP in the current fiscal year to provide a level playing field to all the stakeholders.

During the year FY18, country's core payment systems infrastructure remained operationally resilient. All the channels of payment systems showed significant growth compared to the previous year. The large-value payment system i.e. Pakistan Real Time Interbank Settlement Mechanism (PRISM) processed 1.7 million transactions amounting Rs.361.0 trillion. These transactions showed significant growth of 54.5% and 29.2% in both volume and value of transactions compared to previous year i.e. FY17. In these transactions, the transactions with regards to the 3<sup>rd</sup> Party customers' transfers has the highest share of 1.3 million transactions (i.e. 79% of the overall recorded transactions) whereas Government securities settlement transactions have the highest share of Rs.256 trillion in value of transactions (i.e. 71% of the overall transactions)

The e-Banking channels i.e. real time online branches (RTOB), ATMs, e-Commerce, Internet, Mobile Phone and Call Centers/ IVR Banking collectively processed 756.4 million transactions of value Rs.47.4 trillion. These transactions showed significant growth of 20.9% and 27.8% in both volume and value of transactions compared to previous year i.e. FY17.

A brief summary of comparative position is as under:

**Table 2 - Comparative Summary of Payment Systems**

(Volume in Million and Value in Rs. Trillion)

Payment Systems	FY17		FY18		Growth	
	Volume	Value	Volume	Value	Volume	Value
PRISM	1.1	279.5	1.7	361.0	54.5%	29.2%
e-Banking	625.8	37.1	756.4	47.4	20.9%	27.8%
Paper-based	451.8	139.6	466.5	150.4	3.3%	7.7%

## 2. Payment Systems in Pakistan

SBP, the central banks of the country, is the integral part and a regulator of the country's payment systems. It perform the catalyst role as an operator, monitor, supervisor, regulator and set future directions.

The key payment infrastructure of the country comprises the following:

1. Commercial Banks.
2. Microfinance Banks.
3. Development Finance Institutions (DFIs).

4. Pakistan Real-time Interbank Settlement Mechanism (PRISM) - The Real time gross Settlement System (RTGS) of Pakistan.
5. National Institutional Facilitation Technologies (Pvt.) Ltd. (NIFT) - A paper based semi- automated Clearinghouse.
6. 1LINK – A Switch for ATM, IBFT and Utility Bill Payments.
7. Central Depository Company (CDC).
8. National Clearing Company of Pakistan (NCCPL).

Different types of payment systems are available through different platforms and these can be categorized into two i.e. Large-Value and Retail Payment Systems.

### **2.1 Large-Value Payment System**

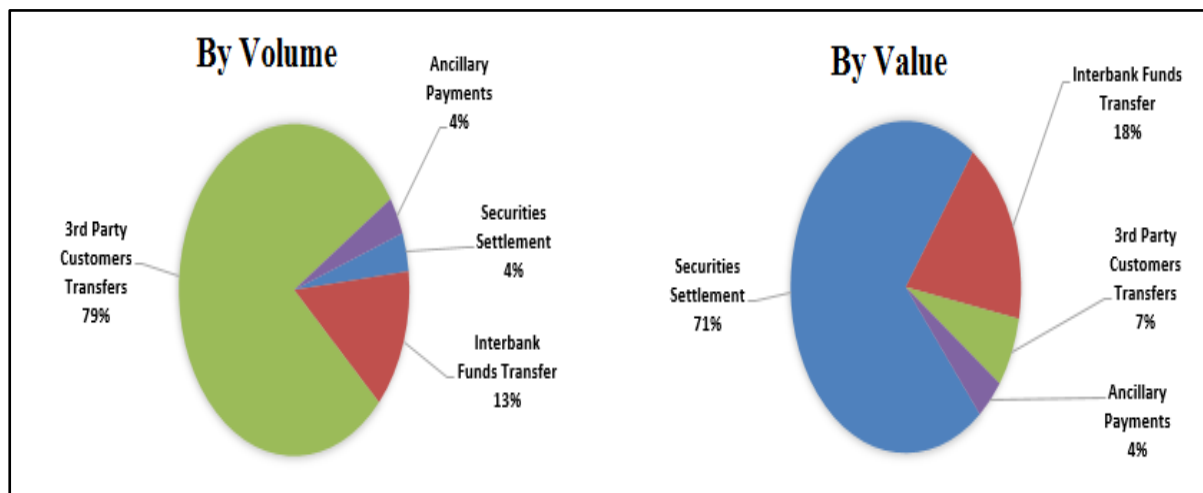
The large-value payment system of Pakistan i.e. PRISM is owned and operated by SBP. It enables its direct participants to settle their payments obligations in Real Time on Gross basis. PRISM is primarily used by financial institutions to settle inter-bank and customers' transactions. The system allows settlement of Government securities trades as well as Multi-lateral Net Settlement Batches processed through Clearinghouse of paper-based instruments, Capital markets transactions (via NCCPL) and settlement of electronic channels clearing via 1Link.

Central Directorate of National Savings (CDNS) has also been granted direct membership of NIFT to process clearing of profit coupon/ withdrawals slips pertaining to Pensioners Benefit Account, Behood Saving Certificate and Saving Account. Recently, SBP has encouraged the use of PRISM at branch level for immediate inter-bank Customers' Funds transfer of home remittances in order to facilitate the general public for their retail payments.

PRISM is a systemically important payment system which processes high value critical payments. It is an essential payment system which ensures the smooth functioning of the economy and the financial system as all Open Market Operations (OMO), Auction, Mop-up, Injection, SBP Reverse Repo Ceiling Facility etc. are settled through this system. If this system fails, it could trigger disruptions or transmit shocks within the economy. Currently, all commercial banks in Pakistan use PRISM to make large-value payments.

As on 30<sup>th</sup> June 2018, PRISM system has 43 Direct Participants which includes 30 Banks, 2 Specialized Banks, 2 MFBS, 8 DFIs and one non-bank which is Central Depository Company (CDC). During FY18, PRISM processed 1.7 million transactions amounting to Rs. 361.0 trillion. Both the volume and value of total transactions processed by PRISM system has shown a significant growth of 54.2% and 29.2% respectively compared to the previous year. This trend is very encouraging and it shows that SBP's awareness initiatives relating to PRISM are working well. In the total volume of PRISM's transactions, the highest share 79% pertains to 3<sup>rd</sup> Party customers' transfers of which 33.3% pertains to the transactions of home remittances. On the other hand, in the total value of transactions Government securities settlement has the highest share of 71% followed by 18% share of interbank fund transfers, 3<sup>rd</sup> Party fund transfer transactions have value share of 7% and settlement ancillary payments have value share of 4%. The volume and value-wise shares are depicted as under:

**PRISM Transactions – FY18**



**2.2 Retail Payment Systems**

Retail payment systems generally have higher transaction volumes and lower average values than the wholesale payments systems. Retail payments usually have larger user group, any person can be a part of the retail payment system. Retail payment systems facilitate e-Commerce and robust commercial activities within an economy. Recent developments in retail payment systems provide customers a wide array of choices with greater level of efficiency and safety in their transactions. Further, final settlement of many of these retail systems are settled through PRISM, thus enhancing safety and efficiency.

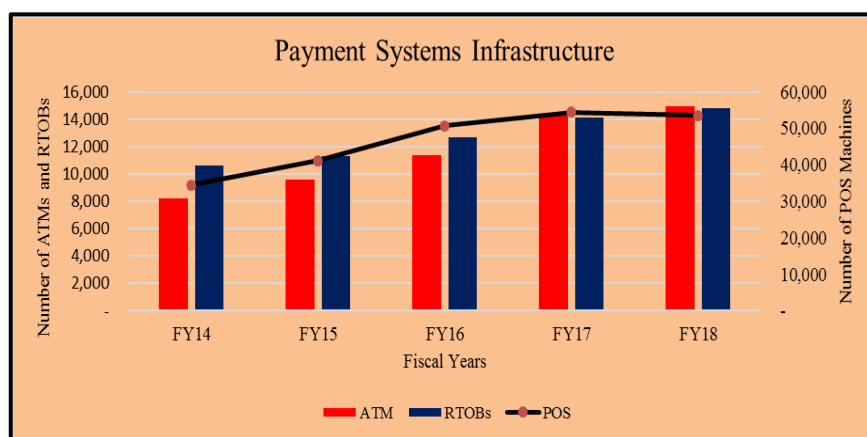
In Pakistan, transactions in retail value payment systems involve Paper-based i.e. cash, cheques, Pay order, demand drafts etc. and digital channels i.e. ATMs, RTOBs, Internet Banking, Mobile Phone Banking, Call Centers/ IVR Banking or payment cards. In fact, the digital payment market is dominated by RTOB, card transactions (Debit and Credit) both, in terms of value and volume. The retail payment systems also include various e-banking products, services and channels such as ATMs, POS network, Internet banking, mobile banking and IVR/ call centers etc.

The position of e-Banking infrastructure and transactions during FY18 is described as:

**2.2.1 E-Banking Infrastructure**

As on 30<sup>th</sup> June 2018, there were 32 Scheduled Banks, 11 Microfinance Banks and 2 Specialized Banks. Further, 8 Development Finance Institutions (DFIs) were also functional in the country. The total number of Banks Branches with YoY growth 4.7% reached to 14,970 from 14,293. Among the total Banks’ Branches 13,908 were of scheduled Banks and 1,062 were of Microfinance Banks Branches and 94 branches were working in foreign countries. Besides these banks’ branches, 278 sub-branches and 331 permanent booths have been providing limited banking facilities were also reported by the Banks. Except 26 branches, all local branches in the country were Real Time Online Branches (RTOBs).

As on June 30, 2018, the total number of installed ATMs reached to 14,019 from 12,689 of previous year depicted YoY growth of 11.5%. These ATMs have been installed by 32 banks. Out of these ATMs, 11,366 (81.1%) were On-site ATMs whereas 2,648 (19.9 %) were Off-Site ATMs, installed at corporate offices, hospitals, shopping Malls etc. Moreover, 4 Mobile ATMs were also operational. There are 2,324 ATMs, which are also equipped with sensors for biometric authentication. Further, there were 52 Cash Deposits Machines (CDMs) with 34 CDMs with dual functionality of cash withdrawals and deposits. All these ATMs are connected with one ATM interoperable Switch i.e. 1Link.

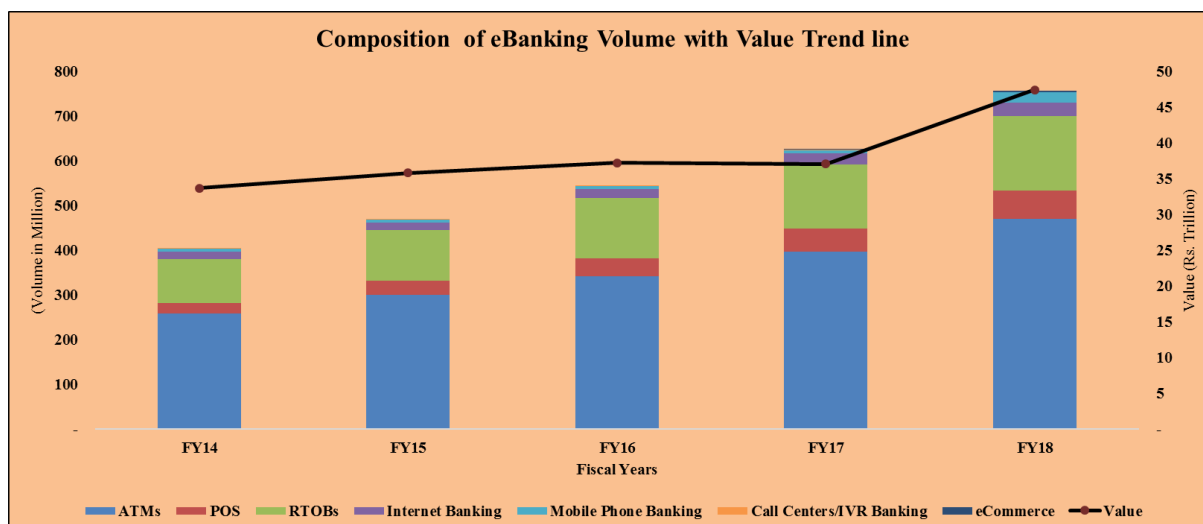


The total number of POS machines showed an annual decline of 1.8% and reached to 53,511 from 54,490 last year. Further, Internet Banking, Mobile Phone Banking and Call Centers/ IVR Banking were being offered by 28, 20 and 21 Banks/ Microfinance (MFBs) respectively.

The number of payment cards issued in Pakistan reached to 40.9 million in June, 2018 from 36.6 million in end of June, 2017. These cards showed YoY growth of 11.7 % compared to previous year. Out of these Cards, 53.1 % are Debit Cards, 21% are ATMs only proprietary Cards, 21.8% are Social Welfare Cards, 3.6% are Credit Cards and remaining Pre-Paid Cards.

### 2.2.2 E-Banking Transactions

During FY18, 756.4 million transactions of value Rs.47.4 trillion were processed through retail e-Banking channels. These transactions showed YoY growth of 20.9 % and 27.8% in volume and value of transactions respectively compared to previous year. In total e-Banking transactions, RTOBs transactions' accounted for the largest share of 84.1% in value of

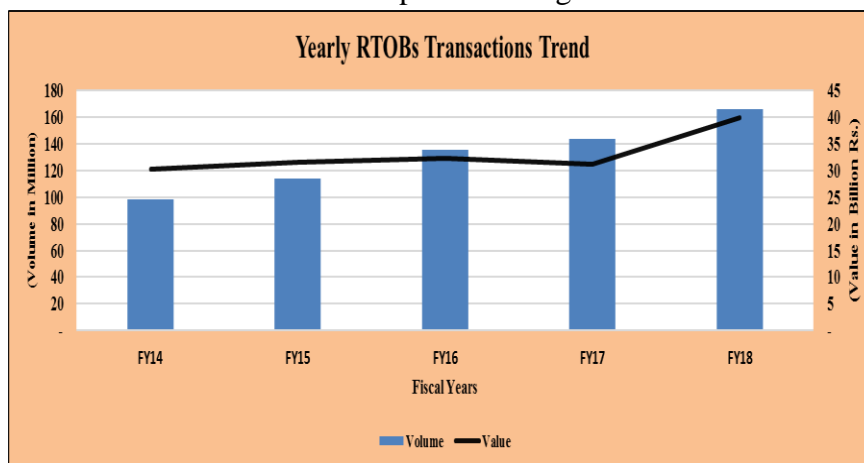


transactions with volume share of 21.9% whereas ATMs has the largest share of 62.2% in volume of transactions with a value share of 11.7%. POS transactions contributed 8.4% in volume with value share 0.6%, Internet Banking accounted for a share 4.1% and 2.7% in volume and value of transactions respectively. The residuals share of e-Banking transactions is contributed by Mobile Phone Banking, Call Centers/ IVR Banking and e-Commerce transactions.

**2.2.2.1 Real Time Online Branches (RTOB) Transactions**

This banking channel provides online banking facility to all its customers’ across all the branch network of the same Bank. During the year under review, this channel processed 165.7 million transactions of Rs. 39.9 trillion. These transactions depicted YoY growth of 15.4% and 28.1% in volume and value of transactions respectively compared to previous year.

During FY18, in term of number of transactions Cash Deposits transactions has the highest share

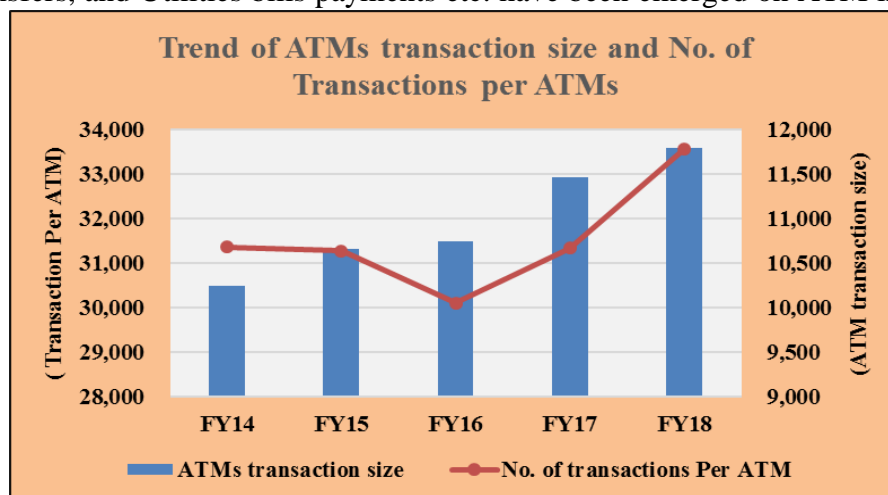


of 75.9 (45.8%) million in total RTOBs’ transactions whereas online funds transfer transactions to other branches have the highest share of Rs. 29.1(73 %) trillion in value of total RTOBs transactions. It is being observed that RTOBs has the growing trend of transactions both in term of volume and value of transactions. The yearly trend is depicted in the above graph.

**2.2.2.2 ATM Transactions**

As a core banking touchpoint and major enabler for access to funds, ATMs are still playing a central role in the broad context of modern banking. The wide selection of services like Cash withdrawals, Funds transfers, and Utilities bills payments etc. have been emerged on ATM in the recent years.

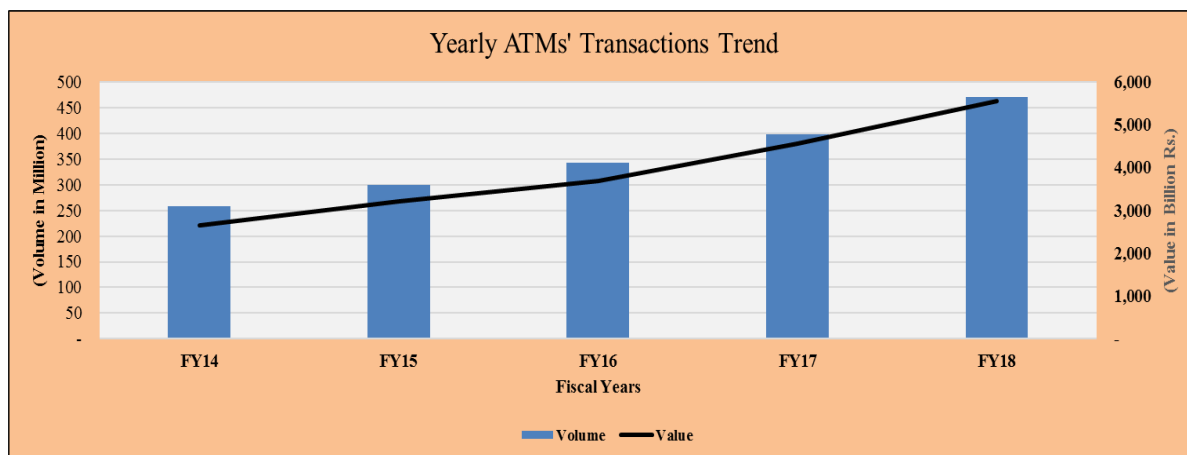
Despite the availability of wide range of services on ATMs, Cash withdrawals still has the highest volume and value of truncations. The channel leads to reduction in the number of branches.





As on end June 2018, the number of ATMs was 14,019. During the year FY18, ATMs processed 470.6 million transactions amounting to Rs. 5.5 trillion. These transaction showed a YoY growth of 18.3% by volume and 21.6% by value respectively. As the number of ATMs in the country are growing, the size of ATMs transactions as well as number of transaction per ATM are on rising trend. During the year under review, the average size of an ATM transaction was approximately Rs. 11,793 per transaction and 33,567 transactions were processed per ATM.

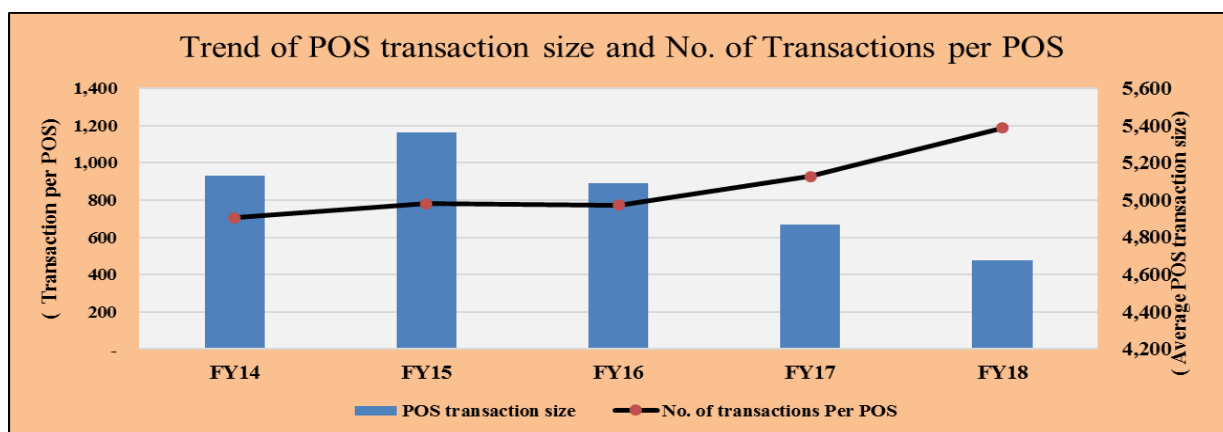
The trend of ATM transactions showed that both volume and value of ATMs transactions are also growing.



Further, ratio of On-Us versus Off-Us Cash withdrawal was approximately 61:39 by volume and by value was approximately 67:33 transactions which shows that customers generally prefer to withdraw cash from their own bank’s ATMs.

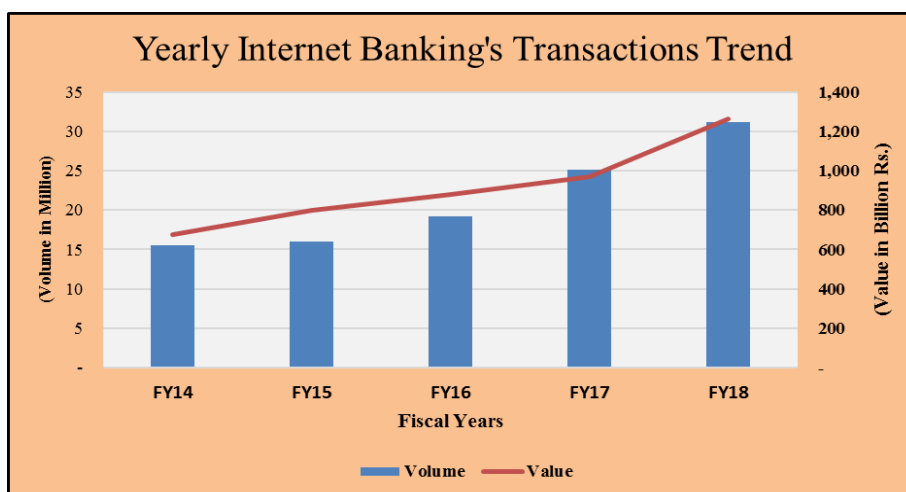
**2.2.2.3 POS Transactions**

In Pakistan 6 banks are in the business of open-loop POS acquiring whereas 3 banks are providing close-loop services on POS. The turnover of 63.5 million POS transactions valuing Rs. 297.0 billion was recorded in FY18 as compared to 50.5 million transactions valuing Rs. 246.0 billion in FY17, showed a YoY growth 25.7 % by volume and 20.7% by value of transactions. POS transactions have 8.4% share in total volume of transactions with value share 0.6 % which is not encouraging due to low uptake of merchant onboarding and insignificant usage of Debit Cards for retail transactions. However, both the Average size of POS and number of transactions per POS have shown a growing trend.



### 2.2.2.4 Internet Banking Transactions

Banks are offering a variety of financial services through Internet Banking (IB) like Intra-bank & Interbank Fund transfer, scheduled fund transfers, Utility Bills Payments, Mobile Air-time top up, Intra-bank credit card payments, School fee payments etc. As on end June, 2018, 28 banks were offering Internet Banking and there were 3.1 million registered Internet Banking Users with these banks. During the year FY18, this channel processed 31.2 million transactions amounting to Rs.1.2



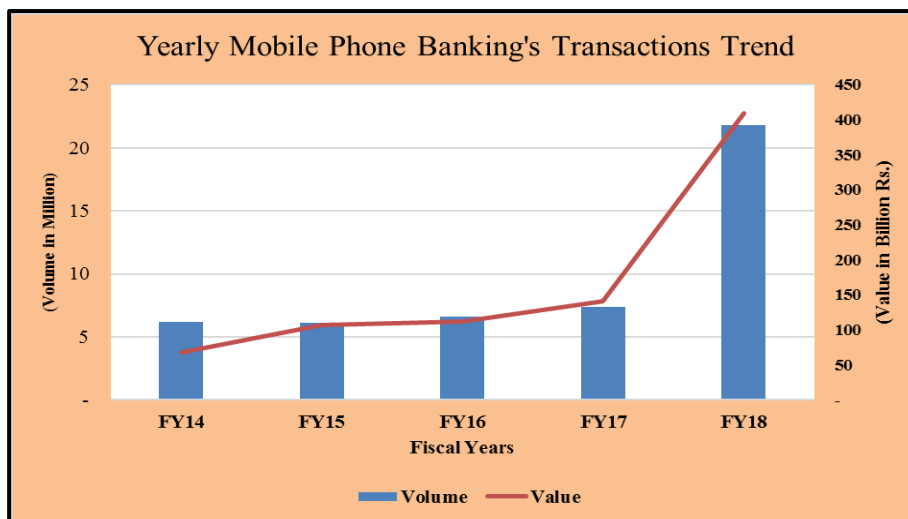
trillion. These transactions showed a YoY growth of 23.9% and 30.3% respectively compared to previous year. In the total Internet Banking transactions the share of Intra-Bank Funds transfers transactions is 7.7 (24.8%) million and Rs. 323.8 (25.7%) billion in volume and value of transactions respectively whereas the share of Inter-Bank Funds transfers transactions in volume and value of transactions is 9.9 (32.0%) million and Rs. 462.1 (36.6%) billion respectively. Utility Bills Payments contributed 11.0 (35.1%) million in volume and Rs. 29.7(2.4%) billion in value of transactions and the residuals shares is contributed by other miscellaneous payments including school/ university fees submission, mutual funds payments, credit cards payment etc. Internet Banking also facilitated 99.8 million non-financial transactions, which include pay order, cheques books, bank account statements and Debit Cards requests etc. The Internet Banking also depicting a growing trend in both volume and value of transactions.

### 2.2.2.5 Mobile Banking Transactions

Mobile Phone/ App based Banking is being offered by 21 Banks/ MFBs to 3.4 million registered users as of end of June, 2018. This Channel processed 21.8 million transactions

worth Rs. 409.8 Billion during FY18 showed a significant YoY growth of 195.6 % and 189.8% in volume and value of transactions respectively.

Intra-bank and Inter-bank fund transfer were the main contributors in total Mobile Phone Banking transactions. Intra-bank fund transfers contributed 5.8 (26.6%) million transactions by volume and Rs. 186.2 (45.4%) billion by value. Interbank fund transfers contributed 5.0 (22.9%) million transactions by volume and Rs. 196.4 (47.9%) billion by value. Utility Bills Payments has the share of 10.1 (46.3%) million by volume and Rs.10.5 billion (2.6%) by value within overall Mobile Banking volume and value transactions



respectively and insignificant residual share is contributed by miscellaneous payment using mobile phone app. The channel has growing trend of transactions and during the year FY18 it showed a significant growth compared to the previous year.

**2.2.2.6 Call Center/ IVR Banking Transactions**

During the year FY18, Call Centers/ IVR Banking Channel processed 0.3 million transactions amounting to Rs. 8.7 billion. This channel facilitates Intra and Inter-Bank Funds transfers, Utilities Bill Payments. As on end June 2018, there were 26.5 million Call Centers/IVR Banking Channel registered users with Banks. It also facilitates 16 million non-financial transactions during the year.

**2.2.2.7 E-Commerce Transactions**

There were 1,094 locally registered e-Commerce Merchants having their merchant accounts in 8 banks as of end of June, 2018 showing limited boarding of e-Commerce merchants in the country. Consumers carried out 3.4 million online transactions of worth Rs. 18.7 billion on these locally registered e-Commerce Merchants during the year FY18. These transactions showed a significant YoY growth of 183.3% and 98.9% compared to previous year.

In addition to the above, domestically issued Debit, Credit and Pre-paid cards processed 6.8 million transactions of Rs. 39.7 billion on local and International e-Commerce merchants. In these e-Commerce transaction Credit Cards has the highest share both in volume and value of transactions.

### **2.2.2.8 Payment Cards Transactions**

In Pakistan, payment cards can be categorized as Credit, Debit, Social Welfare and Pre-Paid Cards. As on end June 2018, there were 40.9 million total cards in circulation. In total, these cards processed 548.3 million transactions amounting to Rs. 6.0 trillion and depicted a YoY growth of 21.1% and 23.4% compared to previous year. Details of Cards is as under:

#### **2.2.2.8.1 Credit Cards**

As on end June, 2018, the number of reported Credit Cards in circulation is 1.4 million. These cards processed 35.5 million transactions of value Rs. 201.5 billion during the year FY18 and showed a YoY growth of 37.3 % and 31.2% in volume and in value of transactions compared to the previous year. The total volume of Credit Card transactions has 87.2% share on POS transactions and 10.2% share in e-Commerce transactions whereas in term of value, these transactions has 85.2% share of usages on POS 12.3% share of usage for e-Commerce transactions the residuals share of transactions pertains to ATMs. The average transactions size by Credit Cards is Rs. 5,692 whereas 25 transactions were processed by a single card.

#### **2.2.2.8.2 Debit Cards**

As of end of June 2018, the number of reported Debit Cards in circulation is 21.7 million. During the year under review, these cards processed 441.1 million transactions worth Rs. 5.1 trillion. These transactions' showed a YoY growth of 21.8% and 23.4% in volume and value of transactions respectively. In the total volume of transactions' processed by Debit Cards, ATMs transactions' have 90.7% share with value share 96.8% whereas POS transactions' has 8.6% share in volume and 2.9% share in value of transactions'. These residuals share of Debit Cards is contributed by e-Commerce transactions proceed by using Debit Cards for online purchases of Card Not Present (CNP) environment. The average transactions size by Debit Cards is Rs. 11,583 whereas 20 transactions were processed by a single card.

#### **2.2.2.8.3 Proprietary ATMs only Cards**

Proprietary ATMs only cards are issued by the 18 banks for cash withdrawals on ATM. As on end June 2018, there were 8.5 million ATMs only cards in circulation and these cards processed 61.8 million transaction of value Rs. 642.2 billion. These transactions' showed a YoY growth of 16.7% and 24.8% in volume and value compared to previous year.

Further, Social welfare cards are issued by the Government of Pakistan or provisional governments to support needy and disasters affected people. As on end June 2018, there were 8.9 million cards in circulation. During the year FY18, these cards processed 8.6 million transactions worth Rs. 37.0 Billion.

### **2.2.3 Paper-based Transactions**

Despite the expansion of e-Payment Channels and instruments. Paper currency continues to be an important means of payment. In addition to this, there are other paper-based payment instruments such as Cheques, Pay order, demand drafts etc. are operational in the country. Among these paper-based instruments, cheques are the preferred mode of transactions for cash

withdrawals, funds transfer, commercial and Government payments transactions. The share of other paper-based instruments is insignificant in terms of volume and value of transactions. During the year under review, 466.5 million transactions of worth Rs. 15.4 trillion were carried out using paper-based instruments. These transactions showed a growth of 3.3% in volume of transactions and 7.7 % in value of transactions.

### **3. Major Developments in Payment Systems**

Payment systems are undergoing with significant changes across the world. Paper-based payments which have dominated since long giving way to new mode payments through electronic means. There has been a visible trend in many countries to progress towards electronic payments (e-payments). Pakistan, following the international practices, also progressing toward the new available mode of payments. In this regards, during the year FY18, following initiatives have been undertaken by SBP to strengthen payment systems in the country:

#### **3.1 Payment Systems Designation**

Designation of payment systems aims at ensuring efficient management of various risks associated with the operations of these payment systems including but not limited to legal, credit, liquidity, settlement, operational, business, custody, and other risks. The ‘Designated Payment Systems’ include payment systems operated by both SBP and private entities. These designated systems are subject to comprehensive oversight of the operational and governance arrangements by SBP in order to promote the smooth operation of safe and efficient payment systems. In this regard, a Payment system designation framework has been issued by SBP, which can be accessed on <http://www.sbp.org.pk/psd/2017/C2-Annex.pdf>

#### **3.2 Guideline for Clearing Operations**

In line with its Vision 2020 that stipulates to implement a robust Regulatory and Supervisory Framework for Payment Systems in Pakistan, SBP has issued the guidelines for clearing operations. These Guidelines cover major areas like roles and responsibilities for Clearing House and its members, timelines to clear and settle various clearing batches, Compensation Policy for consumers, Dispute Resolution Mechanism and Centralized Clearing for banks having online branches etc. These Guidelines became effective from 1<sup>st</sup> January, 2018 and is available at <http://www.sbp.org.pk/psd/2017/C3.htm>

#### **3.3 New PRISM Operating Rules**

The Real Time Gross Settlement System (RTGS) commonly known as Pakistan Real Time Interbank Settlement Mechanism (PRISM) was established in 2008 by State Bank of Pakistan. Following the international practices, PRISM Operating Rules (PORs) was issued in 2009 for the guidance of participants with regard to RTGS business operations.

After issuance of the existing rules, significant developments and innovations with regard to PRISM system have taken place including Introduction of 3<sup>rd</sup> party fund transfers, use of International Bank Account number, 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, profits on premium bonds, digitization of government payments etc. Further, PRISM System was also upgraded in 2017, with an introduction of enhanced features for PRISM participants including revised Intra-day Liquidity Facility criteria; efficiency in monitoring and managing funds and securities balances simultaneously, easy reconciliation process etc.

Bank for International Settlement (BIS) issued Principles for Financial Market Infrastructures (PFMIs) in 2012, recommending standard practices with regard to participation access criteria, settlement & finality, efficiency & effectiveness etc. for systemically important payment systems (like the PRISM System). Therefore, in order to align the existing PRISM operating rules with PFMI, revised rules have been issued which can be accessed at <http://www.sbp.org.pk/psd/2018/C2.htm>

### 3.4 Electronic Funds Transfers (EFT) Regulations

To promote Electronic Fund Transfers (EFTs) in the country and to ensure consumer protection and payment transparency, Electronic Fund Transfers (EFT) Regulations have been issued under the Payment Systems & Electronic Funds Transfer Act 2007. These regulations are applicable to domestic Electronic Fund Transfers on Authorized Financial Institutions (AFIs) which will initiate the process of funds transfer through alternative delivery channels (ADCs) such as POS terminals, ATMs, mobile banking, internet banking, Call Centers/ IVR Banking, Branchless Banking platforms, PRISM system etc.

### 3.5 Guidelines for White Label ATM Operators

In order to facilitate the general public in accessing cash related services via ATM, Guidelines for White Label ATM Operators (WLAO) were issued under the Payment Systems & Electronic Funds Transfer Act 2007 vide PSD Circular No: 05 of 2018. A non-banking entity or a Payment Service Provider (PSP) that owns and operates a network of ATMs is called a 'White Label ATM Operator (WLAO). The Guidelines highlight the objectives, scope, operational arrangements and set forth the regulatory requirements and consumer protection measures for non-banking entities desirous of entering into the business of White Label ATMs.

### 3.6 PRISM system Special Participant

SBP has issued new PRISM Operating Rules<sup>6</sup> wherein SBP may assign Special participant status to any Clearing-house that carries out the functions of clearing. Following these rules, SBP has allowed special participant status of PRISM system to National Clearing Corporation of Pakistan (NCCPL)<sup>7</sup> and 1Link<sup>8</sup>. This status enabled them to settle their clearing batches directly in the PRISM system. It will reduce their settlement risk and settlement time. This is a big step toward modernize and streamline the clearing process and encourage end-to-end process digitization.

---

<sup>6</sup> <http://www.sbp.org.pk/psd/2018/C2.htm>

<sup>7</sup> <https://www.nccpl.com.pk/>

<sup>8</sup> <http://1link.net.pk/>

#### **4. Conclusion**

During the year under review, it is observed that the overall payment infrastructure of the country was stable resulting in the smooth and successful processing of payment transactions in various payment streams. Overall, the increasing trend of the use of electronic payment systems and its rising awareness among general public in Pakistan showed upward trend in all payment systems streams. However, transactions in cash is still dominating in the country.

SBP is continuously taking progressive measures aimed at accelerating adoption and usage of electronic payments in the country, including implementation of policies and regulations that are conducive to both service providers and subscribers of these services. These activities will complement other national objectives such as payments digital transformation and for achieving the goal of financial inclusion.

**Table 3 - Payment Systems Infrastructure**

(Actual Numbers)

Number of	FY14	FY15	FY16	FY17	FY18 <sup>P</sup>
Bank Branches	11,199	11,937	13,179	14,293	14,970
Real time Online Branches (RTOB)	10,640	11,315	12,674	14,150	14,850
ATMs	8,240	9,597	11,381	12,689	14,019
POS Machines	34,428	41,183	50,769	54,490	53,511
Registered Internet Banking Users	1,478,301	1,811,707	1,958,034	2,347,026	3,113,728
Registered Mobile Phone Banking Users	1,671,693	2,267,688	2,451,420	2,484,044	3,385,889
Registered Call Centers/IVR Banking Users	13,910,779	16,624,377	19,200,005	22,389,113	26,484,765

**Table 4 - Payment Cards Composition**

(Actual Numbers)

Number of	FY14	FY15	FY16	FY17	FY18 <sup>P</sup>
Proprietary ATM only Cards	957,807	900,270	4,798,524	8,043,044	8,586,819
Credit Cards	1,333,827	1,369,958	1,450,095	1,292,136	1,453,867
Debit Cards	23,061,171	25,024,235	27,411,117	17,857,561	21,712,069
Pre-Paid Cards <sup>9</sup>				315,865	234,098
Social Welfare Cards	N/A			9,124,363	8,932,140
<b>Total</b>	<b>25,352,805</b>	<b>27,294,463</b>	<b>33,659,736</b>	<b>36,632,969</b>	<b>40,918,993</b>

<sup>9</sup> Data of previous period not available



**Table 5 - Payment System Transactions (Summary)**

(Number in million & Amount in Billion-PKR)

Transaction Type	FY14		FY15		FY16		FY17		FY18 <sup>10p</sup>	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
<b>PRISM System</b>	<b>0.6</b>	<b>149,302.9</b>	<b>0.8</b>	<b>179,613.5</b>	<b>0.9</b>	<b>231,710.5</b>	<b>1.1</b>	<b>279,464.4</b>	<b>1.7</b>	<b>361,048.2</b>
<b>e-Banking</b>	<b>403.1</b>	<b>33,698.6</b>	<b>468.2</b>	<b>35,848.2</b>	<b>543.1</b>	<b>37,225.0</b>	<b>625.6</b>	<b>37,061.9</b>	<b>756.2</b>	<b>47,403.7</b>
RTOB	98.5	30,173.3	113.8	31,559.7	135.4	32,339.8	143.6	31,126.4	165.7	39,857.7
ATM	258.5	2,648.2	300.2	3,202.3	342.9	3,682.3	397.7	4,562.2	470.6	5,549.4
POS	24.3	124.6	32.1	172.1	39.2	199.8	50.5	246.0	63.5	297.0
Internet Banking	15.6	675.6	16.0	797.7	19.0	880.5	25.2	968.7	31.2	1,262.4
Mobile Phone Banking	6.2	67.4	6.1	106.9	6.6	112.5	7.4	141.4	21.8	409.8
Call Centers/IVR Banking <sup>11</sup>	0.7	9.5	0.8	9.5	0.7	10.1	0.3	7.8	0.3	8.7
E-Commerce	-	-	-	-	-	-	1.2	9.4	3.4	18.7
<b>Paper Based<sup>12</sup></b>	<b>362.0</b>	<b>115,163.2</b>	<b>361.5</b>	<b>127,160.0</b>	<b>339.8</b>	<b>134,410.1</b>	<b>451.8</b>	<b>139,590.6</b>	<b>466.5</b>	<b>150,362.1</b>
<b>Total</b>	<b>765.7</b>	<b>298,164.7</b>	<b>830.5</b>	<b>342,621.7</b>	<b>883.8</b>	<b>403,345.6</b>	<b>1,078.5</b>	<b>456,116.9</b>	<b>1,224.4</b>	<b>558,814.0</b>

<sup>10</sup> P is used for provisional data

<sup>11</sup> Volume in thousands

<sup>12</sup> In the figures of FY17 the numbers of cash deposit transactions over the counter(OTC) are also added

Table 6 - PRISM System Transactions

(Number in Thousand &amp; Amount in Trillion-PKR)

Transactions Type	FY14		FY15		FY16		FY17		FY18	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Government Securities	55.4	75.1	68.9	109.7	65.1	152.8	63.9	189.7	63.5	256.4
Inter-Bank Fund Transfers	499.5	61.5	297.3	43.8	312.2	51.2	271.7	56.5	230.4	65.6
3 <sup>rd</sup> Party Customers' Transfers	-	-	355.7	13.9	501.6	15.8	714.8	19.7	1,334.1	24.6
Ancillary <sup>13</sup> Payments Settlement	45.5	12.7	44.3	12.2	51.6	11.9	60.4	13.7	61.6	14.5
<b>Total</b>	<b>600.3</b>	<b>149.3</b>	<b>766.1</b>	<b>179.6</b>	<b>930.5</b>	<b>231.7</b>	<b>1,110.8</b>	<b>279.5</b>	<b>1,689.6</b>	<b>361.0</b>

Table 7 - Real-Time Online Branches (RTOBs) Transactions<sup>14</sup>

(Volume in Million &amp; Value in Billion-PKR)

Transactions Type (Other online branches)	FY14		FY15		FY16		FY17		FY18	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash Deposits	36.0	2,838.8	38.2	3,076.6	47.8	4,617.1	65.9	6,652.9	75.9	7,815.8
Cash withdrawals	21.5	1,966.8	24.5	2,094.9	31.4	3,012.7	31.9	2,502.0	34.5	2,927.1
Fund transferred	41.1	25,367.7	51.1	26,388.2	56.1	24,710.0	45.8	21,971.5	55.3	29,114.8
<b>Total</b>	<b>98.5</b>	<b>30,173.3</b>	<b>113.8</b>	<b>31,559.7</b>	<b>135.3</b>	<b>32,339.8</b>	<b>143.6</b>	<b>31,126.4</b>	<b>165.7</b>	<b>39,857.7</b>

<sup>13</sup> It includes Settlement of NIFT, NCCPL and IINK<sup>14</sup> Transaction within RTOB branches

**Table 8 - ATMs Transactions**

(Volume in Million &amp; Value in Billion-PKR)

Transactions Type	FY14		FY15		FY16		FY17		FY18	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Cash Withdrawal	248.4	2,163.2	288.9	2,662.0	330.1	3,242.5	375.2	3,880.3	446.7	4,838.3
Intra Bank Fund Transfers <sup>15</sup>	4.3	215.9	4.5	218.4	5.2	170.8	7.6	232.6	9.3	304.6
Inter Bank Fund Transfers (IBFT) <sup>16</sup>	5.2	267.4	6.0	319.0	6.1	263.7	9.5	433.1	8.0	380.7
Utility Bills Payment	0.6	1.6	0.9	2.9	1.2	4.5	5.3	10.7	6.2	13.6
Cash /Deposits of Payment Instruments	0.0	0.1	0.0	0.0	0.0	0.1	0.2	5.4	0.3	12.1
<b>Total</b>	<b>258.5</b>	<b>2,648.2</b>	<b>300.2</b>	<b>3,202.3</b>	<b>342.7</b>	<b>3,681.6</b>	<b>397.8</b>	<b>4,562.2</b>	<b>470.6</b>	<b>5,549.4</b>

**Table 9 - Internet Banking Transactions**

(Volume in Million &amp; Value in Billion-PKR)

Transactions Type	FY14		FY15		FY16		FY17		FY18	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Intra-Bank Fund Transfers	5.1	177.0	4.6	242.3	6.0	310.4	6.6	258.2	7.7	323.8
Inter-Bank Fund Transfers	5.3	188.6	4.8	225.9	5.4	222.1	7.5	310.1	10.0	462.1
Utility Bills Payment	3.1	9.8	4.3	10.8	5.3	12.3	9.0	18.6	11.0	29.7
Other Payments through Internet	2.0	300.3	2.3	318.8	2.5	336.4	2.1	381.8	2.5	446.8
<b>Total</b>	<b>15.6</b>	<b>675.6</b>	<b>16.0</b>	<b>797.7</b>	<b>19.2</b>	<b>881.1</b>	<b>25.2</b>	<b>968.7</b>	<b>31.2</b>	<b>1,262.4</b>

<sup>15</sup> Up till June,2016 It was A/c to A/c transfer<sup>16</sup> Up till June,2016 it was 3<sup>rd</sup> Party A/c to A/c Transfer

**Table 10 - Mobile Phone Banking Transactions**

(Volume in Million &amp; Value in Billion-PKR)

Transactions Type	FY14		FY15		FY16		FY17		FY18	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
<b>Intra-Bank Fund Transfers</b>	0.7	24.9	1.1	43.5	1.4	48.0	2.1	60.0	5.8	186.2
<b>Inter-Bank Fund Transfers</b>	0.8	35.9	1.5	56.9	2.0	58.8	2.0	69.3	5.0	196.4
<b>Utility Bills Payment</b>	4.3	5.6	3.2	4.5	2.9	2.4	3.1	6.0	10.1	10.5
<b>Other Payments through Mobile App</b>	0.3	1.0	0.4	2.0	0.4	3.2	0.3	6.1	0.9	16.7
<b>Total</b>	<b>6.2</b>	<b>67.4</b>	<b>6.1</b>	<b>106.9</b>	<b>6.6</b>	<b>112.5</b>	<b>7.4</b>	<b>141.4</b>	<b>21.8</b>	<b>409.8</b>

**Table 11 - Call Center/ IVR Banking Transactions**

(Volume in Thousands &amp; Value in Billion-PKR)

Transactions Type	FY14		FY15		FY16		FY17		FY18	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
<b>Intra-Bank Fund Transfers</b>	0.1	5.0	0.1	4.6	0.1	5.3	0.0	0.4	0.0	0.7
<b>Inter-Bank Fund Transfers</b>	0.0	0.4	0.0	0.4	0.0	0.1	0.0	0.1	0.0	0.1
<b>Utility Bills Payment</b>	0.3	1.5	0.3	1.7	0.3	1.8	0.1	0.6	0.1	0.9
<b>Other Payments through Call Centers/ IVR Banking</b>	0.2	2.7	0.3	2.9	0.3	2.9	0.2	6.6	0.2	7.1
<b>Total</b>	<b>0.7</b>	<b>9.5</b>	<b>0.8</b>	<b>9.5</b>	<b>0.7</b>	<b>10.1</b>	<b>0.3</b>	<b>7.8</b>	<b>0.3</b>	<b>8.7</b>

Table 12 - Payment Cards Vs. Channel Transactions<sup>17</sup>

(Volume in Million &amp; Value in Billion-PKR)

Transactions Type	ATM				POS				e-Commerce			
	FY17		FY18		FY17		FY18		FY17		FY18	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
<b>ATMs only Cards</b>	51.9	502.9	61.1	630.2	1.0	11.9	0.7	12.0	-	-	-	-
<b>Debit Cards</b>	335.4	4,017.8	397.6	4,914.0	26.1	108.5	37.9	147.9	0.7	4.9	2.9	14.0
<b>Credit Cards</b>	0.2	2.1	0.9	5.1	23.9	136.5	30.9	171.7	1.8	15.0	3.6	24.7
<b>Pre-Paid Cards</b>	0.6	4.2	0.8	4.7	0.1	0.4	0.1	0.2	0.1	0.9	0.3	1.1
<b>Social Welfare Cards</b>	9.3	38.5	7.6	32.8	1.5	6.1	1.1	4.2	-	-	-	-
<b>Total</b>	<b>397.4</b>	<b>4,565.5</b>	<b>468.0</b>	<b>5,586.8</b>	<b>52.6</b>	<b>263.3</b>	<b>70.7</b>	<b>336.0</b>	<b>2.6</b>	<b>20.7</b>	<b>6.8</b>	<b>39.7</b>

<sup>17</sup> Reported by the Issuers – which is not reconcilable with the acquirers' reporting.

## Acronyms

ATM	Auto Teller Machine
CDM	Cash Deposits Machine
CNP	Card Not Present
IVR	Interactive Voice Response
MFB	Microfinance Bank
NIFT	National Institutional Facilitation Technologies (Pvt.) Ltd
OTC	Over the Counter
PRISM	Pakistan Real-time Inter-bank Settlement Mechanism
PSD	Payment Systems Department
RTGS	Real-Time Gross Settlement System
RTOB	Real-time online Branches

The Payment Systems Review - FY18 (July 2017 to June 2018) is based on the data reported by Banks/ Microfinance Banks (MFBs). The figures related to the number of Banks, Branches, ATMs, POS machines, registered overall users and payment cards mentioned in this Review are as of June 30, 2018. Whereas, figures of volume and value depicting during the year position. Difference may exist due to the reason that the data of ATMs and POS based on reporting of the acquiring banks, whereas Card-wise data of same channels is based on the reporting of the card issuing banks. 'P' is used for Provisional.

### Disclaimer

The statistics and statistical analysis are based on the data received from Commercial Banks and Microfinance Banks. Although a great deal of care has been taken to ensure publication of correct information and data, however, SBP disclaims responsibility for errors and omissions. This Review is being published for the purpose of information and analysis of stakeholders. There may be minor differences due to rounding-off numbers.

For queries, comments and feedback on this publication, please e-mail at

**[PSD-Data@sbp.org.pk](mailto:PSD-Data@sbp.org.pk)**