

# 5 Strengthening Payment Systems

## 5.1 Overview

Safe and efficient Payment Systems are critical to the effective functioning of financial systems in a country. Payment Systems are the procedures, instruments, and channels by which funds are transferred and settled between financial institutions. It comprises both retail and wholesale payment systems. The retail payment systems, inter alia, include Alternate Delivery Channels<sup>1</sup> (ADCs) which facilitate and process e-Banking transactions in a country. Wholesale payment systems are systemically important (such as Real Time Gross Settlement Systems), and process high-value low-volume transactions. Payment Systems Department (PSD) at the State Bank of Pakistan (SBP) has taken various steps and instituted policy measures for efficient working and security of Payment Systems in the country.

Electronic banking in Pakistan has shown tremendous growth over the last decade. And it has achieved greater efficiency and won customer satisfaction because of high reliance on advanced technologies and integration of systems at regional and global levels.

PSD has taken various measures issuing instructions and guidelines to effectively regulate, oversee, and safeguard ADCs. One such measure is the EMV2 compliance. In December 2008, all Point of Sale (POS) terminals, which process Debit/Credit card transactions in the country, were successfully migrated to EMV standard. Banks have also been advised to replace magnetic stripe based cards with smart or Chip-based Cards by the end of 2010. The Plastic Cards embedded with Chips containing sensitive consumer information provide high level of security.

During FY10, Federal Board of Revenue (FBR) under the Tax Administration Reform Program (TARP) embarked upon a project titled Electronic Payment and Refund System (EPARS). And the Payment Systems Department has been facilitating various stakeholders within SBP, Commercial banks, and FBR on this project in designing the payment and settlement modalities (by using RTGS) for the project, defining dispute resolution mechanism, and ensuring data integrity and security, etc.

To promote the use of banking channels for inward foreign home remittances to respective beneficiary accounts anywhere in Pakistan, Payment Systems Department, in collaboration with Exchange Policy Department, has introduced a Payment Systems Architecture during FY10 for a project called Pakistan Remittance Initiative (PRI) jointly undertaken by State Bank of Pakistan, Ministry of Finance, and Ministry of Overseas Pakistanis. The objectives were to credit the beneficiaries' accounts on the same day, using RTGS platform for inter-bank settlement, bring efficiency and transparency in the remittance system and boost foreign exchange reserves in the country. The initiative has started to materialize and highest-ever remittances amounting to USD 8.906 billion were received in FY 10 showing an increase of 14 percent over the previous year.

## 5.2 Real Time Gross Settlement (RTGS)

RTGS is a payment mechanism that settles inter-bank and time critical payments in real time, item by item across the participants' current accounts held with the central bank. RTGS, called PRISM (Pakistan Real-time Interbank Settlement Mechanism), was launched on July 1, 2008, and since then has been successfully providing online real-time settlement services to 42 participating institutions. All Commercial banks in Pakistan, four DFIs (Development Finance Institutions), and one MFB (Microfinance Bank) are direct members of this System.

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<sup>1</sup> ADCs in Pakistan consist of ATMs, POS Terminals, Mobile Banking (including SMS), Internet Banking (including emails) and IVR/Phone Banking.

<sup>2</sup> EMV (Acronym for *Euro pay, MasterCard and Visa*) is a Chip and Pin based European standard for smart cards and card readers. It enlists various steps with an objective to reduce Skimming related frauds on ATMs & POS terminals.

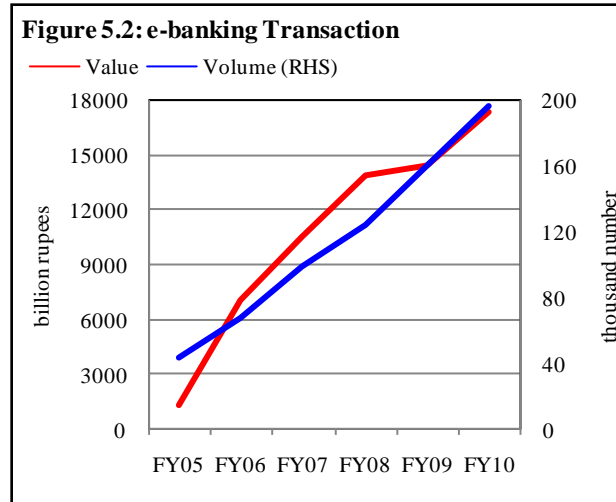
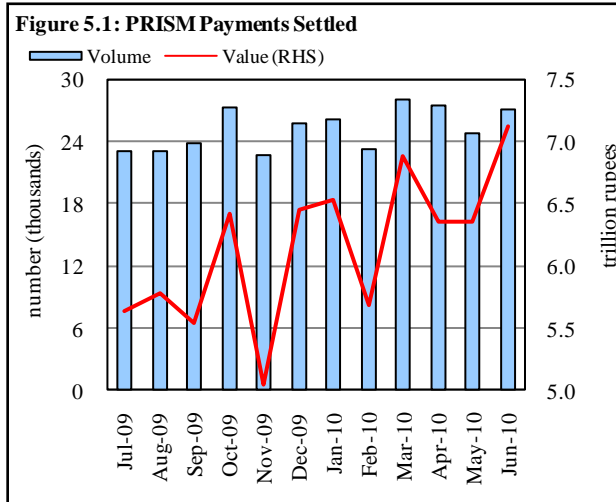
For smooth and efficient working of RTGS, SBP has issued comprehensive ‘Operating Rules’ for PRISM operations, prepared after extensive deliberations with stakeholders both internal and external. Moreover, a facility for settlement through PRISM System has also been extended to NCCPL (National Clearing Company Pakistan Ltd) via participating banks. NCCPL is responsible for clearing of shares traded in all stock exchanges of Pakistan.

During FY10, PRISM payments were around 302,000 valuing Rs 73.85 trillion compared to around 220,000 thousand valuing Rs 59 trillion in the previous year.

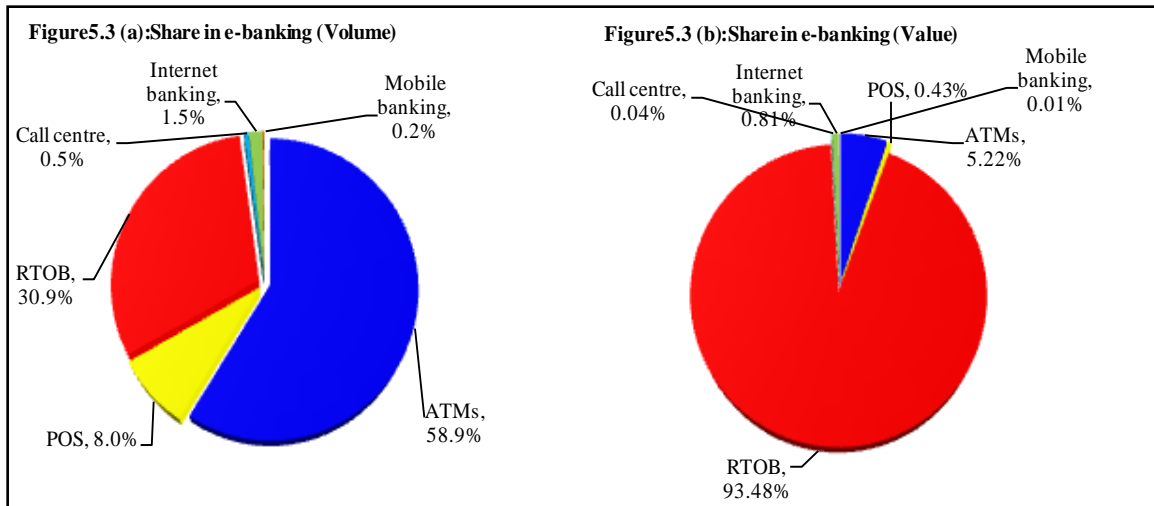
### 5.3 e-Banking and its Composition

In terms of volume, e-banking has recorded 196.3 million transactions showing 22.9 percent increase against an increase of 28.4 percent over the previous year. The total value of transactions was Rs 17.3 trillion showing an increase of 20.6 percent against 3.5 percent increase last year (**Figure 5.2**).

ATM is one of the most widely used and preferred ADC in the country. ATMs are commonly used for comparatively small value cash withdrawals; therefore its share in total number of electronic transactions has been recorded to be the highest, i.e., 59 percent. During FY10, the average value of ATM transactions<sup>3</sup> was Rs 7,826 compared to Rs 7,336 last year. Share of Real Time Online Banking (RTOB) and Point of Sale (POS) in e-Banking transactions was 31 percent and 8 percent respectively. Other e-Banking Channels such as Call Centre, Internet and Mobile Banking, however, had comparatively low share in total E-Banking transactions (**Figure 5.3 a**). In terms of value, RTOB contribution was 93.5 percent as this channel is used mostly for business to business (B2B) transactions. ATM contributed 5 percent in the value of transactions. The shares of POS, Internet, Mobile banking, and Call Center banking were, however, nominal in total value of e-Banking transactions (**Figure 5.3 b**).



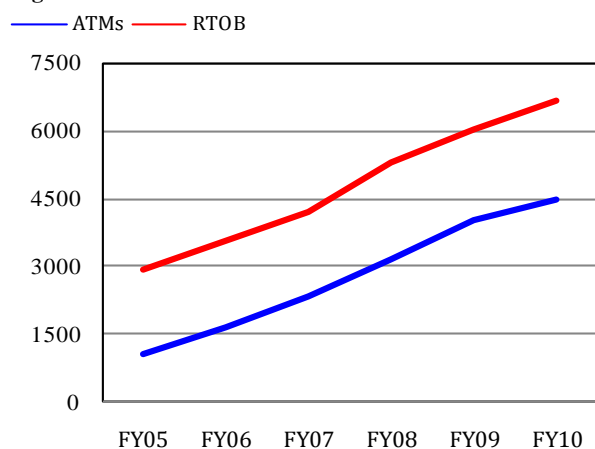
<sup>3</sup> The average size of ATM Transactions = Total Amount / Total number of transactions. Here the total number of ATM transactions include cash withdrawal, cash deposit, IBFT, utility bills payment, and deposit of Payment instruments.



### 5.3.1 Real Time Online Branch (RTOB) Network and Automated Teller Machines (ATMs)

During FY10, banks have increased their online branch network from 6,040 to 6,671 showing a growth of 10 percent compared to 14 percent growth in the previous year. The share of online branches in the total branch network has increased from 68 percent to 73 percent. Similarly, during FY 10, banks have added 466 new ATMs in their network, bringing the total number of ATMs in the country to 4,465, reflecting a growth of 11.7 percent compared to 28.1 percent growth last year (Figure 5.4).

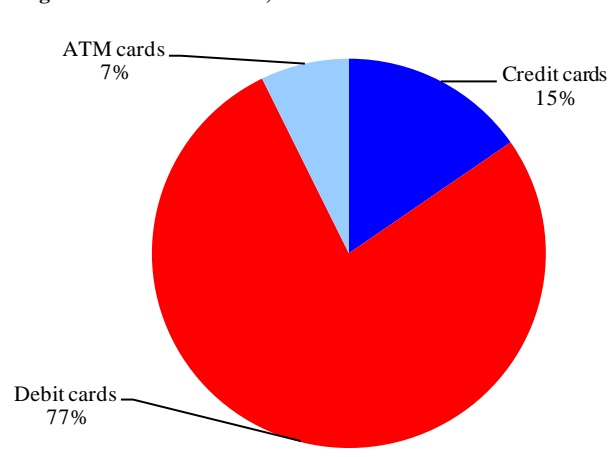
**Fig 5.4: Number of ATMs and Online Branches**



### 5.3.2 Number of Cards (Credit/Debit/ATM)

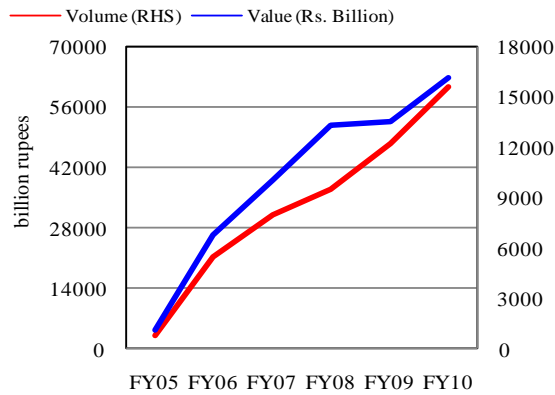
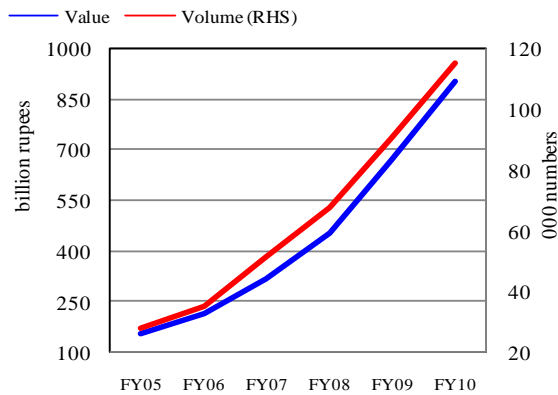
As of June 30, 2010, total number of cards in circulation has reached 10.5 million as against 8.9 million last year showing a growth of 18 percent (Figure 5.5).

**Figure 5.5: Share of ATM, Credit and Debit Cards**



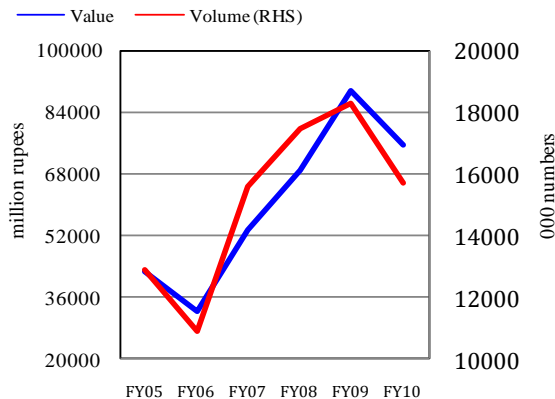
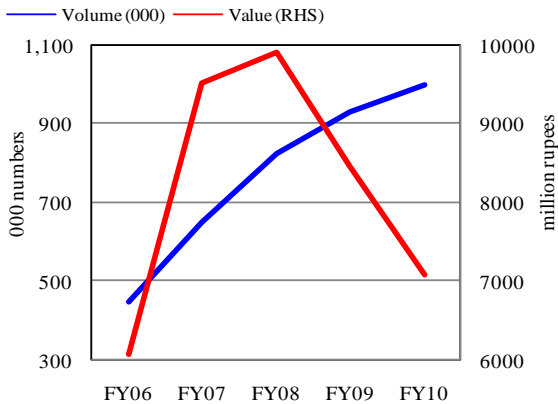
### 5.3.3 Real Time Online Banking (RTOB) Transactions

During FY10, in terms of volume, RTOB transactions increased by 28.2 percent compared to 28.3 percent last year. In terms of value, the amount increased by 19.7 percent compared to 1.7 percent last year. Banks offer RTOB channel for conducting various C2C, C2B and B2B transactions online (Figure 5.6).

**Fig 5.6: RTOB Transactions****Fig 5.7: ATM Transactions**

### 5.3.4 Transactions Through ATMs

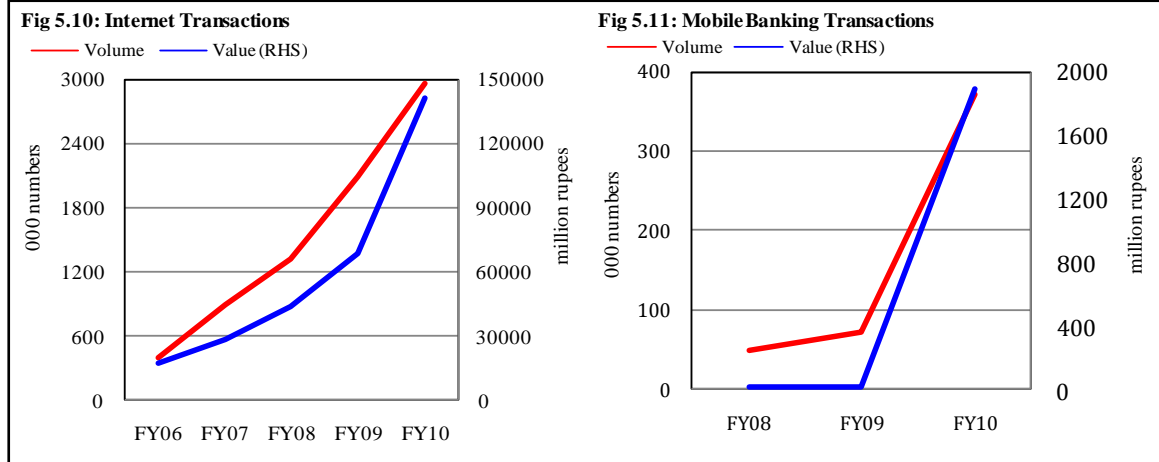
During FY10, in terms of volume, ATM transactions registered an increase of 27 percent compared to 34 percent last year (see **Figure 5.7**). In terms of value, the amount of ATM transactions increased by 35 percent compared to 48 percent increase in the previous year. Apart

**Fig 5.8: POS Transactions****Figure 5.9: Call Centre Transactions**

from cash withdrawal, ATMs are also used for inter-bank funds transfers, cash deposits, payment of utility bills, etc. In Pakistan, on average, daily 71 transactions were executed per ATM during the year.

### 5.3.5 POS (Point of Sale) Transactions

As of June 30, 2010, total number of POS terminals had reached 52,049 compared to 49,715 last year showing an increase of 5 percent. In terms of volume, POS transactions in the country reached 15.7 million showing a decrease of 14.3 percent compared to 4.5 percent increase recorded in the previous year. In terms of value, the amount of transactions reached Rs 75.4 billion showing a decrease of 15.8 percent compared to 30 percent increase recorded last year. Strict policy measures taken by banks regarding issuing credit cards are believed to be the main reason behind this decline (**Figure 5.8**).

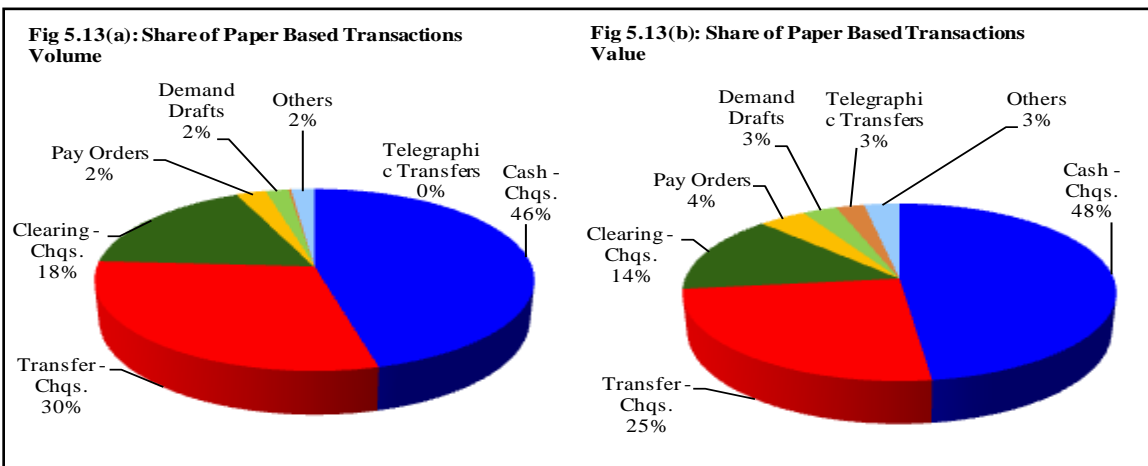
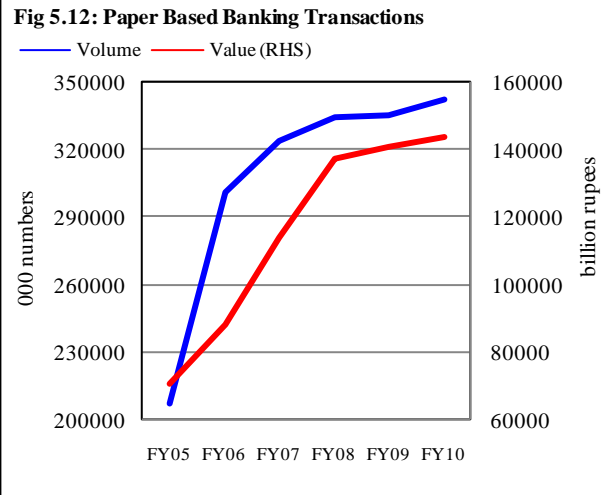


### 5.3.6 Call Centre Banking

Transactions through call centers or IVR during FY10 were 1 million involving an amount of Rs 7.1 billion. This shows an increase by 8 percent in volume, but 16 percent decrease in value compared to 13 percent increase in volume and 15 percent decrease in value last year (**Figure 5.9**).

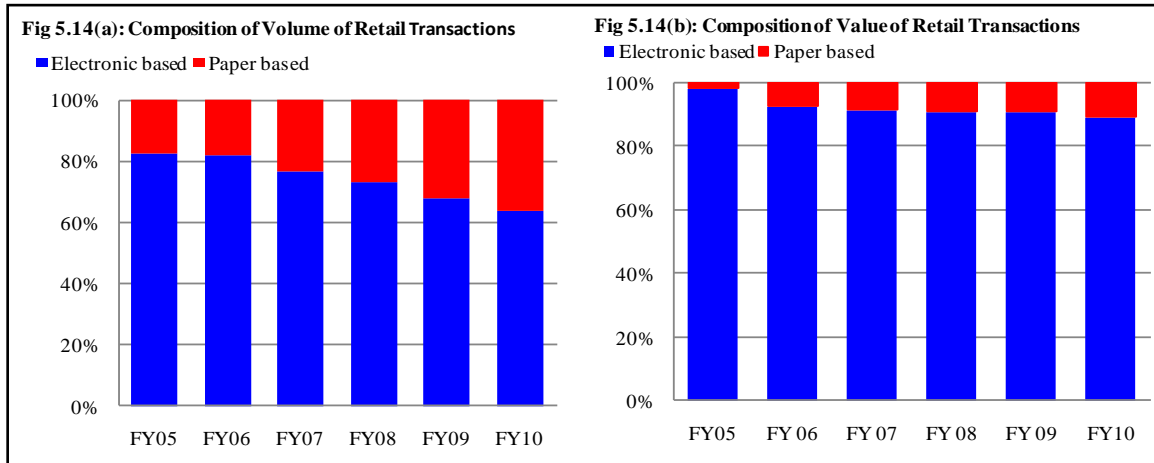
### 5.3.7 Internet Banking

Internet banking includes payments and electronic fund transfers (EFT). During FY10, banks reported 2.96 million transactions involving an amount of Rs141.2 billion, which shows an increase of 41 percent in volume and 107 percent increase in value compared to an increase of 59 percent in volume and an increase of 56 percent in value recorded last year (**Figure 5.10**).



### 5.3.8 Mobile Banking

Some banks in the country are offering financial transactions through mobile phone. The volume of transactions was 371,052 for FY10 compared to 71,240 transactions recorded last year. In



terms of value, it reached Rs 1.89 billion compared to Rs 16 million last year (**Figure 5.11**).

### 5.4 Paper Based Banking

FY10 witnessed a growth of 2.2 percent in the volume of paper-based banking transactions compared to 0.3 percent increase last year. The value of transactions increased by 2.0 percent against 2.6 percent last year (**Figure 5.12**). While looking at the composition of paper based instruments, cheques (such as cash, clearing, transfer) had a major share, i.e., 93 percent in volume and 87 percent in value. Cash cheques were the most widely used paper based instruments in the country with 46 percent share in volume and 48 percent share in value (**Figure 5.13 a & b**).

E-Banking composition has increased from 32.3 percent to 36.4 percent in terms of volume of transactions, whereas in terms of value, it has reached 10.76 percent compared to 9.25 percent last year (**Figure 5.14 a & b**).