

Chapter # 4

Payment & Settlement System.....

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4 PAYMENTS AND SETTLEMENT SYSTEM

4.1 Overview

Quality of payment and settlement system is the litmus test of the efficiency of financial infrastructure of an economy. Thus one of the functions of central bank is to oversee that the country's payment system is safe, efficient and risk free. Well designed and managed payment system helps to maintain financial stability and reduce the cost, time and uncertainty of settlement and facilitates efficient use of financial resources. In this connection, the SBP has focused on implementation of Real Time Gross Settlement System (RTGS). For effective management of the system the SBP maintains close liaison with the BSC. While performing banking functions on behalf of the SBP, the BSC implements SBP policies designed to improve efficiency and smooth functioning of the payment and settlement system through wide network of its field offices.

In order to streamline payments through the financial system, the BSC has been providing effective and efficient clearing and settlement services to commercial banks to ensure a safe and prompt transferring of funds between banks and reducing risks in the transactions. It manages the operations of clearing houses through which inter bank fund transfers are effected. However, recently National Institutional Facilitation Technologies (Pvt.) Ltd. (NIFT) has been allowed to undertake automated clearing function at most of the cities and adjacent commercial and industrial towns as shown in the **Figure 4.2**. In other financial centers, BSC supervises all the functions of the clearing house.

4.2 NIFT Clearing System

The automation process at BSC is at advance stage and all the branches of BSC would be online in near future. In the payment systems area, manual cheque processing has been eliminated and in order to modernize payment systems processing, the job has been entrusted to NIFT, a joint venture between a consortium of six major banks and private sector. It is responsible for the establishment and management of automated clearing house facilities in Pakistan. NIFT is actively involved in the modernization of payment systems in the country.

All commercial banks and all their branches in major cities avail NIFT's services and BSC plays monitoring role on the clearing operations of the NIFT. The NIFT has created a semi-automated clearinghouse on image based processing of payment instruments. In the first phase the instruments related to the commercial banks and other financial institutions have already been standardized and made "Machine Readable" by using Magnetic Ink Character Recognition (MICR) Code Line that is being used internationally. This is a major

achievement towards electronic clearing house and the use of the future technology of Cheque Truncation whereby physical movement of payment instruments will not take place rather cheque clearance will be

Figure 4.2 NIFT's Nation-wide Clearing Grid



obtained with the transfer of images authenticated through digital signatures. This will reduce the turnaround time needed for clearing. As mentioned earlier, the functions of clearing house of BSC have been handed over to NIFT in most of its field offices. As of June 2005, NIFT has been allowed to undertake automated clearing functions at nine cities. These are Karachi, Lahore, Peshawar, Faisalabad, Hyderabad, Rawalpindi, Islamabad, Multan and Quetta together with intercity clearing offices which cover 2,679 branches of commercial banks. In other field offices, BSC performs all the functions of the clearing house. In addition during 2004-05, the setting up of clearing house has also been allowed at NBP Mansehra, Lodhran and Mardan under their supervision. The main functions performed by the NIFT are as under:

4.2.1 Functional Highlights

- Inter-bank clearing and settlement
- Intra-bank clearing and settlement
- Timely pick-up and drop services through recognized couriers
- Advices / vouchers for intra-bank accounting
- Direct posting support on media for returns and inward
- Query systems - Software and data enabling large member banks to organize internal call centers
- Call center services
- Reports and statistics to member banks on a regular basis
- Turnkey support for preparation of clearing involving payment of utility bills by cheque (in drop boxes)

4.2.2 Clearing Services Offered

- Overnight clearing (24 hour clearing service)
- Same Day / High Value clearing (3 hour clearing service)
- Inter city clearing (48 hour clearing service)
- Countrywide Local US Dollar Clearing (5 day clearing service)
- Same day returned cheques processing
- High value clearing
- No transfer delivery
- NIFT provides service up to branch level. It also provides a net settlement position to BSC and settlement advice to branches.
- The role of the main branch in clearing has been abolished and banks do not exchange document.
- Image based processing of all documents can offer image and data on CD's; images effectively pave the way for electronic clearing, enabling data communication.

Image based facilities have been established at Karachi, Lahore, Islamabad, Peshawar, Rawalpindi, Hyderabad, Multan and Faisalabad, for automated cheque clearing. Accounts Department of the BSC has close coordination with key players of the payment system in respect of clearing and settlement activities in retail payment system such as NIFT, NBP, and field offices of the BSC. The BSC Karachi Office is working with NIFT to settle all the clearing transactions (including other field offices) as "centralized settlements" in Karachi Office.

4.3 US Dollar Instruments Collection and Settlement System

The SBP has introduced a "Local US Dollar Instruments Collection and Settlement System" in Pakistan in March 2004 with the help of wide network of BSC field offices throughout the country. The objectives of this system are quick settlement locally, cost effectiveness and facilitation of the market. All financial instruments (cheques, drafts etc) denominated in US Dollar drawn on bank branches in eleven big cities of Pakistan are acceptable for this settlement system. Branches in Karachi, Lahore, Islamabad, Rawalpindi, Faisalabad, Multan, Sialkot, Peshawar, Quetta, Mirpur and Hyderabad can participate in the

Local US Dollar Instruments Collection and Settlement System. Accordingly, it is mandatory for banks operating in Pakistan of which Head Office or branch offices are located in Karachi:

- To be a member of this system.
- To open US Dollar settlement account with a minimum balance of US\$10,000 for settlement with BSC Karachi and thereafter to maintain sufficient balance to cater to the requirements keeping in view their business volume. The said account is remunerated on the same interest rate as is applicable to SCRR for FE-25.
- To settle payment of US\$ instruments drawn on them through this system or to return unpaid instruments on settlement date.

NIFT has been associated with the BSC as facilitator of inter-bank and intra-bank clearing and settlement services to all banks and branches in 11 major cities of the country.

4.4 Standardization of Government Payment Instruments

The BSC has been facing problems in processing government payment instruments. Keeping in view the processing problems and future trends, it has become imperative to standardize the Government Payment Instruments. To resolve this issue, BSC has initiated the job of Standardization of Government Payment Instruments in line with the commercial market. The methodology of standardization of financial instruments encompassing the area of finalization of colours, shades, and standard sizes of different Government Instruments with the proposed SBP MICR Code Line was invariably discussed with PSPC, NIFT, PIFRA and other stakeholders. Based on their suggestions/ proposals, it has been decided that:-

- Cheques bearing serial numbers with alpha numeric characters of different dimensions will be discontinued.
- Instruments of different light colours for the Federal and Provincial Governments will be used to avoid chances of wrong payment.
- Machines readable MICR will now be used so that electronic processing of payment instruments is managed by NIFT.

With the introduction of standardized instruments, no internal accounting procedure or internal control of any department will be changed rather the new system shall provide more controls over the payment process. In an integrated environment, vital data concerning the payment instruments can be exchanged electronically thereby minimizing the chances of fraud. It will bring efficiency, accuracy and ensure best internal control / coverage of risk and also reduce the turn around time for the stakeholders. The objective of this modernization is to move towards electronic clearing house and the use of the future technology of “Cheque Truncation System” for clearing and settlement purpose. For further identification of payment instruments, BSC is actively coordinating with AGPR, PIFRA and other Government agencies. In the light of consultations with these agencies, the system of MICR Code will be finalized.

4.5 RTGS

The RTGS System named as Pakistan Real Time Inter Bank Settlement Mechanism (PRISM) will automate the current end of day inter-bank settlement systems for large value payments at SBP and BSC. At present, counter parties face risks like credit risk, liquidity risk and settlement risk due to time lag in the end of the day settlement. The gross settlement (transaction by transaction settlement) in real time will minimize these risks. The RTGS system includes the functionalities of Queue Management, Grid Lock Resolution and interfacing with Globus. The benefits of PRISM are as under:

- The PRISM plans to automate the inter-bank funds transfer and facilitate the settlement of government securities transactions in primary and secondary markets,
- Payee banks and their customers receive funds with certainty without exposing themselves to any risk in real time.

- PRISM will also bring more efficiency in inter city and intra city clearing between banks as the NIFT will be doing clearing on multilateral basis and these clearing results will be settled on Real Time Basis in PRISM.
- Following implementation of RTGS, RTGS Service Bureaus will be established at the BSC offices.
- Standard messaging format will be used by using the SWIFT message format.

BSC has played a significant role in the progress of RTGS since start of the system. The BSC coordinated with RTGS Project Management Team and facilitated its feedback on Current Accounts and Other Deposit Accounts of stakeholders which are being maintained in DAD at its field offices. All clearing settlements are done in the books of DAD, Government Receipts and Payments are being settled in PAD.

4.6 E-Banking in Pakistan

E-banking in Pakistan continued to grow remarkably during FY05. Cumulative data for the period under review showed that the commercial banks have installed 166* new ATMs during FY05 bringing the total number of ATMs to 842*. The number of transactions on ATMs were increased to 21.15* million during FY05 as compared to 18.98 million in the corresponding period last year. During current fiscal year the value of ATM transactions increased to Rs.109.92 billion* as against Rs.89.42 billion in FY04.

Similarly commercial banks have added 401 new branches into online network during FY05 bringing the total online branch network to 2,582*. The growing trend indicates the confidence of consumers on electronic banking. In order to meet the growing demand of fresh bank notes for ATM network, the BSC has advised Chief Managers of all field offices to make a separate allocation of fresh currency notes specifically for the ATMs network.

Table 4.6.1 Infrastructure of E-Banking		
Description	Figures as on	
	30-06-2004	30-06-2005
ATMs	676	842*
Online Branches	2,181	2,582*
* Provisional		

Table 4.6.2 Transactions of E-Banking		
Description	Figures as on	
	2003-04	2004-05
Number of ATM Transactions (in million)	18.98	21.15*
Value of ATM Transactions (Rs. in billion)	89.42	109.92*

4.7 Key Initiatives

The SBP with the close coordination and interaction with BSC has taken following measures to further improve the payment and settlement system:

1. In order to institutionalize its focus on payment system stability, SBP has established Payment Systems Department. The Chief Manager BSC Karachi Office is a member of Payment Settlement Group and provides necessary feedback to Payment System Department. The main objective of this department is to oversee the existing payment and settlement systems in place and develop a strategy with the coordination and interaction of BSC and banking sector for improvement in the existing system.
2. The framework for the oversight of the payment system is being developed. Statistics on various payment instruments such as the number of ATMs, number of online branches as on date and the number and value of ATM transactions, both paper based and electronic, are being collected on a quarterly basis and uploaded on the website.

3. In order to facilitate e-Commerce in Pakistan, the Electronic Transactions Ordinance was promulgated in 2002. This ordinance provides the legal coverage to electronic transactions against paper-based transactions. The Public-Key Infrastructure (PKI) is the combination of software encryption technologies and services that enables enterprises to protect the security of their communications and business transactions on the internet.
4. Further automation of cheque clearing, through implementation of Image Based Cheque Truncation model in Pakistan is being planned. This will help to reduce the risk of fraud in paper based systems.
5. Increase in membership of banks in RTGS is gradually increasing the coverage.