7 INFORMATION TECHNOLOGY AND INFRASTRUCTURE DEVELOPMENT

7.1 Overview

The SBP BSC has continued its focus on use of technology in processing various transactions to improve its operational efficiency. The Information Systems & Technology Department (ISTD) of SBP is providing technical solutions and necessary infrastructure as per business requirement of BSC. The operational efficiency of BSC has improved considerably due to changes in work procedures from manual to automated on-line banking and non-banking system. A lot of data is maintained and utilized through automated system and required information is communicated immediately from one office to another through computers. This transformation was necessary because of fast automation and mechanization of business processes in domestic financial institutions in the recent past. However BSC has to do a lot for developing a technology driven work environment in order to promote efficiency and provide quality service to its stakeholders.

7.2 Role of Information Systems and Technology Department

The Information Systems & Technology Department of SBP is providing all the support and guidance for the introduction and implementation of high quality software packages and modules so as to reduce operational costs, improve end-user performance, and meet overall business requirements of the BSC. The department has not only helped in achieving competitive technological advancements but also supporting in the identification of future requirement. ISTD's role is not limited to automation within SBP and its subsidiaries, but also to enhance and facilitate the growth of technology and its impact on the operational development of the entire financial industry. Besides providing these services, ISTD focuses on safeguarding the data and relevant systems through its security plans. The main objectives of the automation were as under:

- To automate the existing manual systems (Banking Operations)
- To develop a local and wide area network, connecting various departments and offices across the country.
- To establish an Enterprise Resource Planning system.
- To design and implement a Data Warehouse wherein the data is stored, retrieved, upgraded and extracted for analytical purposes.
- To develop a Management Information System.

7.3 Globus Banking Solutions

Globus Banking System has been deployed to automate the banking and treasury operations of the BSC. Before implementing the Globus, the User Acceptance Testing for foreign exchange, government securities, and deposit banking and government banking were conducted. During the period under review, the rollout of Globus Banking System has been successfully completed and the system is smoothly functioning in the BSC. Under the Globus banking system, the areas which have been fully automated included Public Accounts, Deposit Accounts, Special Savings Certificates (SSC), Defence Savings Certificates (DSC), Prize Bonds Scheme and Cash Tellers. More specifically the following areas have been automated under the System:

- Banking Side (Government Payments & Receipts)
- Banking Side (Deposit Accounts Unit)
- Export Refinance
- National Prize Bonds

- Securities (SSC/DSC)
- Currency System (For issue)

In addition, CBR Module has also been successfully introduced at the field offices of BSC during FY06.

7.4 Oracle Enterprise Resource Planning Software

Oracle ERP is meant for BSC's internal operations to streamline and improve business processes in order to achieve internal operational efficiency and information management capabilities. The system is customized taking into account the nature of operations performed by the BSC with full consideration given to security and the necessary system access controls. Through different modules of Oracle Financials (GL, FA, AP) and Oracle Distribution (PO, INV), BSC has introduced an online process that ensures quick and efficient procurement cycle. It provides improved management, better customer service and integration of different working areas of BSC. It has also helped in discarding manual registers, manual vouchers and manual reporting. The Oracle HRMS module is being used for recruitment, employee information & assignments, leave management, and compensation & benefit. The new payroll application comprises of four modules i.e., Salary, Advances, Pension and Provident Fund / General Provident Fund. The Project Management Team, SBP has successfully completed the rollout of different modules of Oracle (ERP) in the BSC. These automated modules are fully integrated with each other. Implementation of these modules has improved the operational efficiency in these areas. Detail of these modules is as under:

Table 7.4 Detail of Oracle (ERP) Modules		
HRMS Modules	1	Employees Information
	2	Leave Management
	3	Performance Evaluation
	4	Compensation and Benefits
	5	Disciplinary action
	6	Work Structure
Financial Modules	1	General Ledger
	2	Accounts Payable
	3	Fixed Assets
Distribution Modules	1	Inventory
	2	Purchasing
Custom Modules	1	Medical Services System
	2	Payroll
	3	Advances
	4	Pensions
	5	Staff Funds

Consequent upon implementation of Globus Banking Solutions and Oracle (ERP) Modules remarkable improvement has been observed in the quality of services rendered to the stakeholders and transaction / job processing time has been considerably reduced.
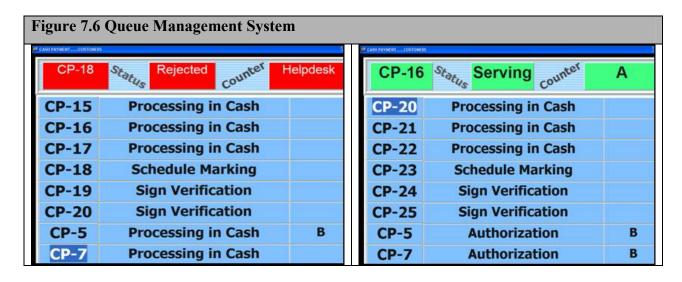
7.5 Infrastructure Development

In order to improve infrastructure and network facilities the officials of ISTD and M/s Hyundai Information Technology Company conducted a survey to assess the networking requirements for Globus / Oracle. On the basis of survey reports pertaining to the networking requirements of the field offices the task was undertaken and all the offices/departments of BSC have been interconnected across the country through Local Area Network and Wide Area Network. In order to ensure that the Globus and Oracle systems run smoothly and efficiently, all hardware requirements have been fulfilled.

Table 7.5 Number of Computers / Printers & Scanners etc Deployed at BSC

S #	Office	Position as on 30th June 2005					Position as on 30th June 2006				
		PC	Printers	Scanners	Others	Total	PC	Printers	Scanners	Others	Total
1	HOK	146	49	5	11	211	176	52	5	16	249
2	Bahawalpur	49	23	1	-	73	52	23	1	1	77
3	D. I. Khan	30	9	-	-	39	41	19	-	-	60
4	Faisalabad	93	11	-	6	110	98	11	2	1	112
5	Gujranwala	34	25	1	-	60	46	31	1	-	78
6	Hyderabad	22	16	1	17	56	62	20	-	-	82
7	Islamabad	104	26	1	-	131	111	31	2	2	146
8	Karachi	289	147	3	-	439	289	147	3	-	439
9	Lahore	278	87	-	-	365	278	128	1	5	412
10	Multan	68	19	1	-	88	74	24	1	3	102
11	Muzaffarabad	35	18	-	-	53	49	19	1	-	69
12	N. N. Karachi	49	15	1	15	80	60	19	1	15	95
13	Peshawar	80	16	1	1	98	115	21	1	-	137
14	Quetta	75	40	1	-	116	75	40	1	-	116
15	Rawalpindi	118	34	-	-	152	124	34	1	27	186
16	Sialkot	34	20	-	-	54	34	20	-	2	56
17	Sukkur	28	17	-	-	45	65	22	-	-	87
	Total	*1,532*	*572*	*16*	*50*	*2170*	*1749*	*661*	*21*	*72*	*2503*

Others: UPS, Multimedia, Laptop, Stabilizers, Servers, Port Switches, Radio Modem, Routers, Firewall, SDC Modem, VSAT, Modem, DTU's

7.6 Queue Management System

System & Procedure Unit, Rawalpindi Office has developed software namely "Queue Management System" locally. The model was developed in March 2006, User Acceptance Test was conducted in April 2006 and the system was launched on 10th May 2006. The system has initially been launched in Public Accounts Department to attend the representative of government departments. A customer facilitation room was constructed where they are attended on a centralized help desk. The customer is issued a token and then he waits inside the facilitation room where the entire approval process is displayed; as such the system keep informing him about each stage the case is being processed. And finally the customer is asked over a Public Address System to collect his / her payment from a particular payment counter.

Figure 7.6 Queue Management System

The benefits of the Queue Management System are as under:
- Customer turnaround time is well documented.
- Delay at any particular stage of the process can be identified and analyzed.
- The system is keeping a parallel record, and the figures can be reconciled through system when needed.
- The system is providing one window operation for customers representing federal and provincial government departments.
- Having their output documented, at the end of the day efficiency of the staff can be monitored individually.
- VIP culture is eliminated because the system itself maintains the queue strictly.
- Customer is satisfied as he is kept informed about the process of his case.

This system has been implemented at Faisalabad, Sialkot and Islamabad offices. Implementation at other offices is in pipeline, specifically, Gujranwala, Hyderabad and Peshawar.

7.7 Basic Office Automation Training

Information System & Technology Department of SBP has conducted Basic Office Automation Training (BOAT) Program at offices / departments of BSC. Further, NIBAF Islamabad and Karachi have imparted training under various programs on different modules relating to Information Technology.

S #	Office	CBR Revenue Collection System	Basic Office Automation	Oracle (ERP)	Globus	Computer Training	Basic Information Technology
	Table 7.7 Automation Training Imparted to Employees of BSC During FY 06						
1	HOK	-	2	57	7	32	2
2	Bahawalpur	-	60	26	-	-	-
3	D. I. Khan	3	-	-	-	-	-
4	Faisalabad	3	60	-	-	-	-
5	Gujranwala	3	-	18	-	44	-
6	Hyderabad	3	-	-	-	-	8
7	Islamabad	-	-	10	20	-	-
8	Lahore	-	79	46	181	64	26
9	Multan	3	-	-	8	-	-
10	Muzaffarabad	3	-	-	-	-	-
11	Peshawar	1	-	-	45	-	-
12	Quetta	3	-	-	-	-	-
13	Rawalpindi	-	-	14	-	-	-
14	Sukkur	1	-	31	31	-	-
	Total	*23*	*201*	*202*	*292*	*140*	*36*

To further enhance the skills of the officers of SBP BSC refresher training programs based on Oracle (ERP) and Globus banking application have been started. Initially, trainings have been conducted for Globus at Bahawalpur office, HRMS and MSS at Karachi office and HRMS at North Nazimabad office. A comprehensive training plan has been devised by ISTD for the next fiscal year to update IT skill set of BSC officers.