



**STATE BANK OF PAKISTAN**

**The Retail Payment Systems of Pakistan**  
*(Paper Based and E-Banking)*  
Januray - March 2008

## Table of Contents

---

<b>1. Introduction</b> .....	6
<b>1.1 Retail Payments through Paper Based Instruments</b> .....	7
<b>1.2 Retail Payments through E-Banking</b> .....	9
<b>1.3 Contribution of ATMs, POS and RTOB in E-Banking Operations</b> .....	9
<b>1.4 Transition to E-Banking</b> .....	10
<b>2. Electronic Banking In Pakistan</b> .....	11
<b>2.1 Online Branch Network and Automated Teller Machines (ATMs)</b> .....	11
<b>2.2 Number of Cards (Credit/Debit/ATM)</b> .....	11
<b>2.2.1 Credit Cards</b> .....	11
<b>2.2.2 Debit Cards</b> .....	11
<b>2.2.3 ATM Cards</b> .....	12
<b>2.3 Smart Cards</b> .....	12
<b>3. Volume On E-Banking Channels</b> .....	12
<b>3. Volume and Value on E-Banking Channels</b> .....	12
<b>3.1 Real Time Online Banking Transactions</b> .....	12
<b>3.2 Transactions through ATMs</b> .....	12
<b>3.2.1 Fund Transfers</b> .....	13
<b>3.2.2 Cash Deposits</b> .....	13
<b>3.2.3 Utility Bills Payment</b> .....	13
<b>3.3 POS (Point of Sale) Transactions</b> .....	13
<b>3.4 Call Centre Banking</b> .....	14
<b>3.5 Internet Banking</b> .....	14
<b>3.6 Internet Merchant Banking</b> .....	14
<b>3.7 Cross Border Transactions through E-Banking</b> .....	15
<b>3.8 Non financial E-Banking Transactions</b> .....	15
<b>4. Acronyms</b> .....	16

## List of Figures

---

- Figure-1 (a): Number of Transactions (paper-based and e-banking)
- Figure-1 (b): Amount of Transactions (paper-based and e-banking)
- Figure-1 (c): Number of Paper Based Transactions
- Figure-1 (d): Amount of Paper Based Transactions
- Figure-1 (e): Number of e-Banking Transactions
- Figure-1 (f): Amount of e-Banking Transactions
- Figure-1.1(a): Share in Paper Based Transaction Volume
- Figure-1.1(b): Share in Paper Based Transaction Value
- Figure-2: Number of ATMs & On-line Branches
- Figure-3: Share of Active Cards
- Figure-4: RTOB Transactions
- Figure-5: ATM Transactions
- Figure-6: POS Transactions
- Figure-7: Internet Merchant Account
- Figure-8: Non-Financial Transactions
- Figure-9(a): Share of e-Banking (Number of Transactions)
- Figure-9(b): Share of e-Banking (Amount of Transactions)

## List of Tables

---

- Table-1 (a): Comparison of Number of Transactions (paper-based and e-banking)
- Table-1 (b): Comparison of Amount of Transactions (paper-based and e-banking)
- Table-1.1: Paper Based Instruments
- Table-2: Comparison of Cross Border Transactions (e-Banking)

## EXECUTIVE SUMMARY

---

### **Total Retail Payments:**

During Q3 FY2007-2008, total 111.6 million retail payment transactions were recorded against 114.1 million transactions recorded for the previous quarter. This shows a decline by 2.2% in numbers against the previous quarter. In terms of value, the current quarter recorded Rs. 36.6 trillion amount of retail transactions in comparison with Rs. 34.7 trillion recorded for the previous quarter; this shows an increase by 5.4% in value of transactions over the previous quarter.

### **Paper Based:**

The volume of paper based transactions during Q3 FY2007-2008 reached at 81.1 million against 84.0 million transactions recorded for the previous quarter. This shows a decline by 3.4% over the previous quarter in number of transactions. The value of these transactions reached Rs.33.3 trillion compared with Rs.31.7 trillion recorded for the previous quarter. The growth recorded for paper based value of transactions reached 5.0% over the previous quarter.

### **eBanking:**

The volume of e-banking transactions during Q3 FY2007-2008 reached at 30.5 million against 30.1 million transactions recorded for the previous quarter. This shows a growth of 1.2% over the previous quarter in number of transactions. The value of transactions reached Rs.3.4 trillion compared with Rs.3.1 trillion recorded for the previous quarter. The growth recorded for value of transactions reached 9.8% over the previous quarter for eBanking.

### **Debit & Credit Cards:**

Total number of active cards decreased by 3.8% reaching the level of 6.4 million against 6.7 million cards recorded for the previous quarter. Credit cards recorded decrease of 6.8% having reached at 1.5 million against 1.6 million number of credit cards recorded for the previous quarter. The debit cards recorded decline of 2.8% and stood at 4.6 million compared with 4.8 million debit cards recorded for the previous quarter.

### **Infrastructure:**

Total number of ATM machines as of Q3 FY2007-2008 reached at 3,021 compared with 2,618 ATMs recorded for the previous quarter. This shows an increase of 15.4 % over the previous quarter in ATMs. The Real Time Online Branches (RTOB) reached at 5,124 against 4,979 RTOBs for the previous quarter. This recorded a growth of 2.9% over the previous quarter in RTOBs. The number of POS terminals available to customers was 54,471 compared with 52,474 POS machines recorded for the previous quarter. The POS machines recorded a growth of 3.8% over the previous quarter.

### **ATM Transactions:**

Total number of ATM transactions decreased by 0.7% in Q3 FY2007-2008 and stood at 16.3 million compared with 16.5 million transactions recorded for the previous quarter. The amount of ATM transactions was Rs.109.9 billion against the Rs.109.5 billion amount recorded for the previous quarter. The ATM transactions showed the growth of 0.4% over the previous quarter.

### **RTOB Transactions:**

The number of Real Time Online Banking (RTOB) transactions grew to 9.1 million against 8.8 million transactions recorded for the previous quarter. This reflects a growth by 3.9% compared to the previous quarter. The value of transactions through RTOB recorded during this quarter was Rs.3.2 trillion against Rs.2.9 trillion amount of transactions recorded for the previous quarter. This shows a growth of 10.1% over the previous quarter for RTOB transactions amount.

### **Other eBanking Channels:**

The number of transactions on other E-Banking channels (POS, Internet & Call Center/IVR, and Mobile) recorded during the quarter under review was 5.0 million against 4.8 million transactions

recorded for the previous quarter. This shows an increase by 2.7% against the previous quarter in terms of number of transactions. The value of such transactions was Rs.32.0 billion compared with Rs. 28.1 billion transactions recorded for the previous quarter. This reflects an increase of 14.0% over the previous quarter in terms of value of transactions for other eBanking channels.

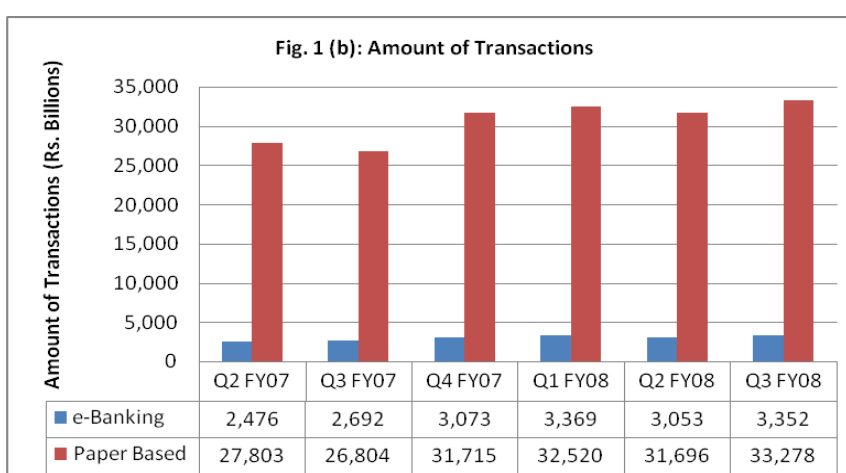
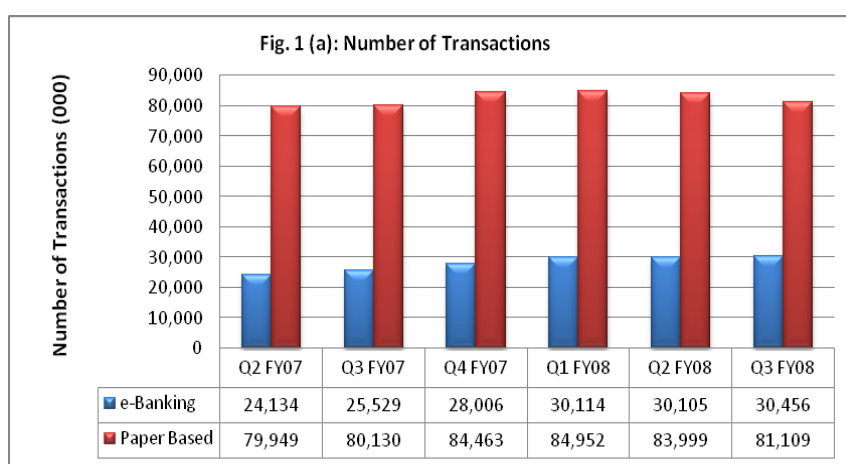
**Transformation:**

The use of electronic channels is consistently growing as contribution of electronic transactions increased to 27.3% in number terms compared with 26.4% recorded for the previous quarter. In terms of value, the electronic channel's composition reached 9.1% against 8.8% recorded for the previous quarter.

## 1. Introduction

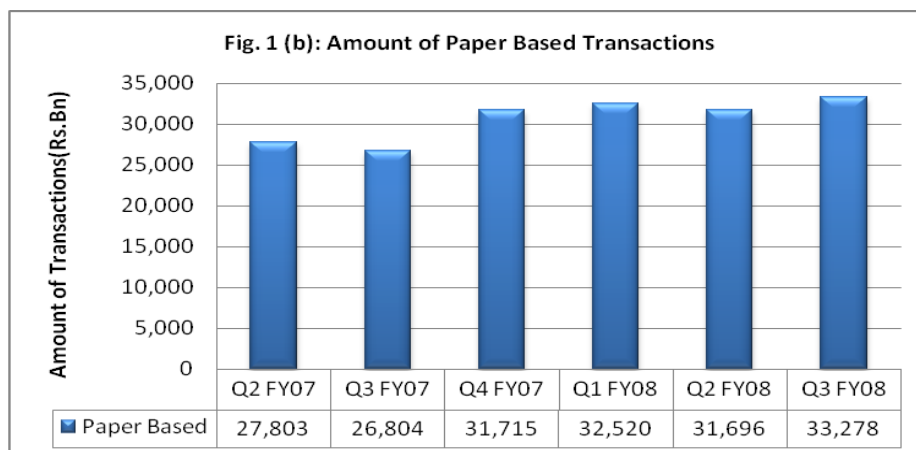
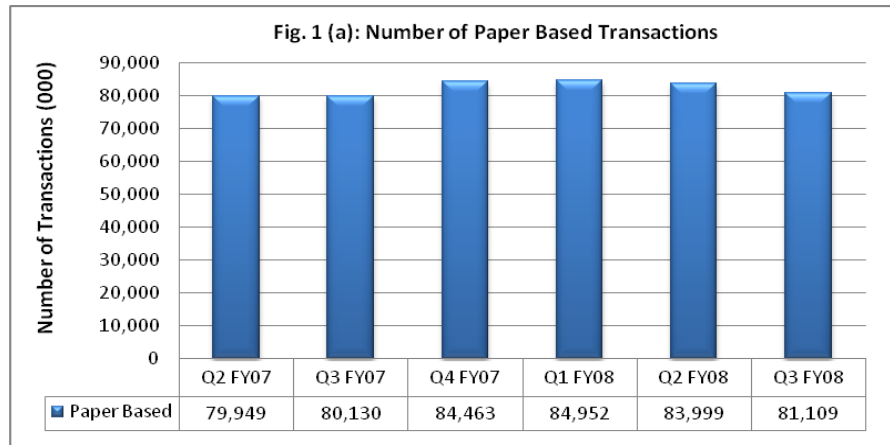
Retail payments in Pakistan comprise of various paper-based and electronic instruments from conventional cheques to modern smart cards. The system handles high volume and low value transactions through paper based (such as cheque) and non-paper based transactions (such as eBanking). The ease and comfort associated with eBanking has substantially reduced the volume and value of paper based transactions in Pakistan. This report focuses on the transactions of retail nature through paper as well as electronic mode. During Q3 FY2007-2008 volume of retail payment transactions registered a decline of 2.2% against 0.8% decline in the previous quarter. In terms of value, the amount increased by 5.4% against 3.2% decrease in the previous quarter.

The trend of paper and electronic based transactions and value since Q2 FY2006-2007 is given in the Fig. 1(a) & 1(b) mentioned below:



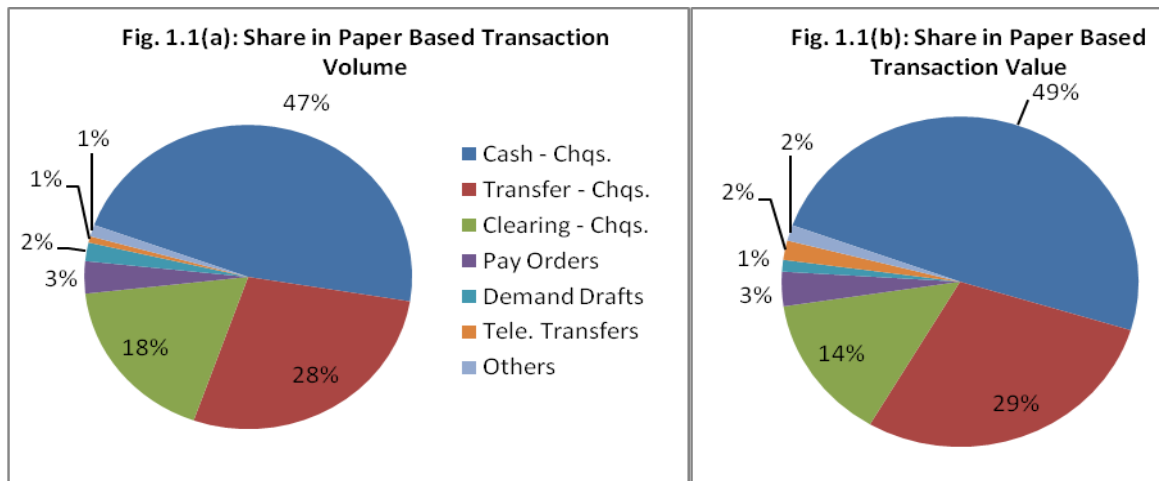
## 1.1 Retail Payments through Paper Based Instruments

Q3 FY2007-2008 witnessed a decline by 3.4% in numbers compared with 1.1% decline in the previous quarter (Fig. 1(a)). The value of transactions increased by 5.0% against 2.5% decrease in the previous quarter (Fig 1(b)).



<b>Table 1.1: Paper Based Instruments</b>				
<b>Instruments</b>	<b>Qtr 2 FY08</b>		<b>Qtr 3 FY08</b>	
	<b>Number (million)</b>	<b>Amount Rs. (trillion)</b>	<b>Number (million)</b>	<b>Amount Rs. (trillion)</b>
<b>Cash – Cheques</b>	39.7	16.5	38.1	16.4
<b>Transfer – Cheques</b>	22.5	8.3	22.6	9.5
<b>Clearing - Cheques</b>	15.4	4.1	14.5	4.7
<b>Pay Orders</b>	3.0	1.4	2.8	1.1
<b>Demand Drafts</b>	1.6	0.4	1.6	0.4
<b>Tele. Transfers</b>	0.7	0.5	0.5	0.6
<b>Others</b>	1.2	0.5	1.0	0.5
<b>TOTAL</b>	<b>84.0</b>	<b>31.7</b>	<b>81.1</b>	<b>33.3</b>

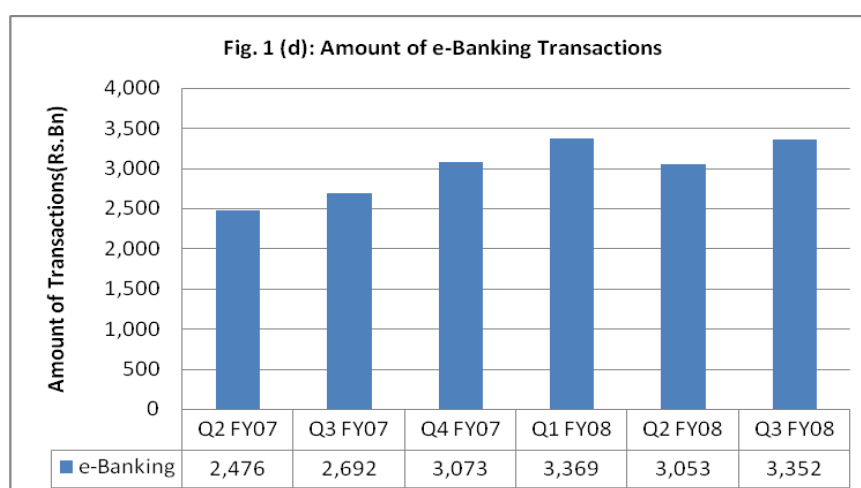
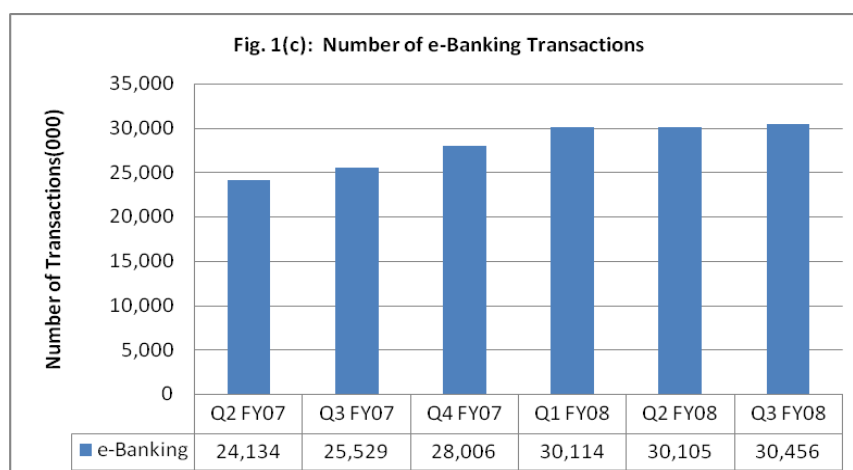
Among the paper based instruments, cheques have a dominant share of 93% in volume and 92% in value. Among the cheques, cash cheque is the most widely used instrument with 47% share in volume and 49% share in value. The respective percentage share of all instruments is shown in the Fig. 1.1(a) & 1.1(b).





## 1.2 Retail Payments through E-Banking

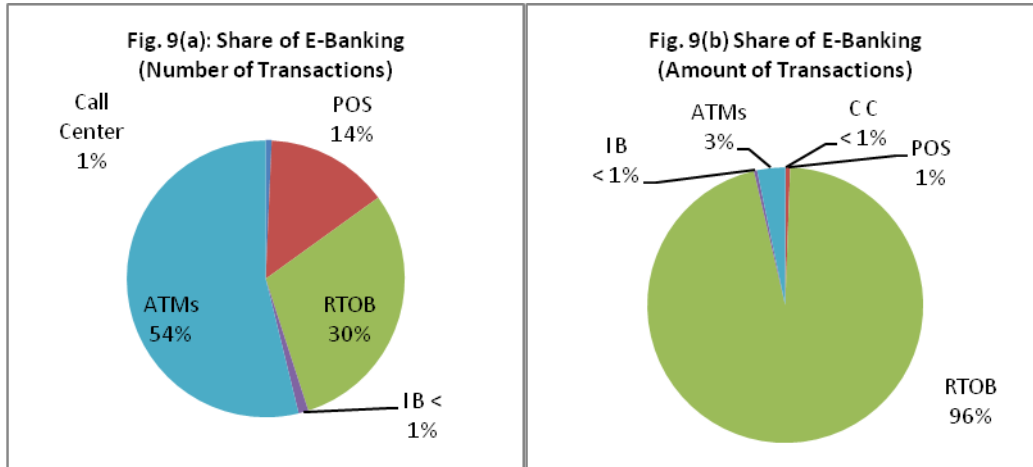
Electronic banking transactions recorded 30.5 million transactions showing a growth of 1.2% against the decline by 0.03% in the previous quarter. In terms of value, eBanking recorded Rs.3.4 trillion amount of transactions showing a growth by 9.8% against 9.4% decline in the previous quarter. (Fig. 1(c) & 1(d)).



## 1.3 Contribution of ATMs, POS and RTOB in E-Banking Operations

ATMs are commonly used for small value cash withdrawal, therefore, the share of ATM transactions in the total number of electronic transactions was highest i.e. 54%. ATMs usage for funds transfer has increased compared to the previous quarter. Average size of ATM transaction recorded for this quarter was Rs.6,708 compared with Rs.6,632 transactions size recorded for the previous quarter. The share of Online Banking, POS, Call Centre and Internet Banking in the total E-Banking business was 30%, 14%, 1% and 1% respectively. However, in terms of amount, the contribution of RTOB banking is 96%, since this channel is mostly used for B2B transactions. ATM transactions contribute 3% in the amount of transactions.

The share in value (amount) of POS, Internet and Call Center banking is very nominal as reflected in Fig. 9(b).



#### 1.4 Transition to E-Banking

During the last six quarters the transition from paper based banking to e-banking has been gradual, yet consistent in terms of volume as well as value of transactions. The composition of electronic transaction number is increasing and makes 27.3% of total number of transactions compared with 26.4% recorded for the previous quarter. The value of electronic transaction composition was 9.1% against 8.8% in the previous quarter (Table 1-(a) & 1-(b)).

#### Retail Electronic and Paper Based Payments

Number of Transactions (000)						
Number (000)	Q2 FY07	Q3 FY07	Q4 FY07	Q1 FY08	Q2 FY08	Q3 FY08
Electronic Based	24,134	25,529	28,006	30,114	30,105	30,456
Paper Based	79,949	80,130	84,463	84,952	83,999	81,109
<b>TOTAL</b>	<b>104,083</b>	<b>105,659</b>	<b>112,469</b>	<b>115,066</b>	<b>114,104</b>	<b>111,565</b>
% Composition						
Electronic Based	23.2%	24.2%	24.9%	26.2%	26.4%	27.3%
Paper Based	76.8%	75.8%	75.1%	73.8%	73.6%	72.7%

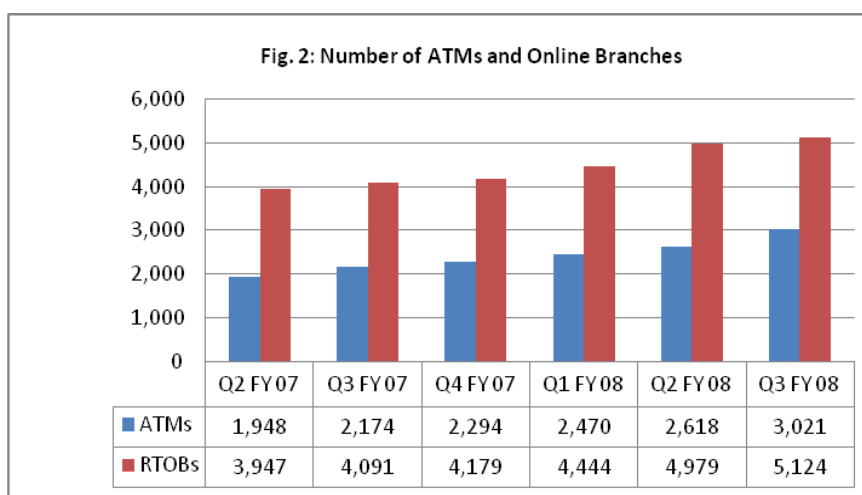
**Table 1-(b): Comparison of Amount of Transactions in Retail Electronic and Paper Based Payments**

Amount of Transactions (Rs. In Billion)						
Amount (billion)	Q2 FY07	Q3 FY07	Q4 FY07	Q1 FY08	Q2 FY08	Q3 FY08
Electronic Based	2,476	2,692	3,073	3,369	3,053	3,352
Paper Based	27,803	26,804	31,715	32,520	31,696	33,285
<b>TOTAL</b>	<b>30,278</b>	<b>29,503</b>	<b>34,789</b>	<b>35,889</b>	<b>34,748</b>	<b>36,637</b>
% Composition						
Electronic Based	8.2%	9.2%	8.8%	9.4%	8.8%	9.1%
Paper Based	91.8%	90.8%	91.2%	90.6%	91.2%	90.9%

## 2. Electronic Banking In Pakistan

### 2.1 Online Branch Network and Automated Teller Machines (ATMs)

During this quarter, banks converted 79 manual/computerized branches into online branches and added 66 new online branches, raising the total number of online branches from 4,979 to 5,124. The share of online branches in the total branch network increased from 61% in the previous quarter to 63% in the current quarter. Similarly, during the Q3 FY07-08, banks have added 403 new ATMs in their network, bringing the total number of ATMs to 3,021 (previous quarter recorded total 2,618 number of ATMs) reflecting a growth of 15.4% as compared to 6.0% growth in the previous quarter. The trend in number of ATMs and On-line Branches since Q2 FY07 is given in Fig. 2.



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

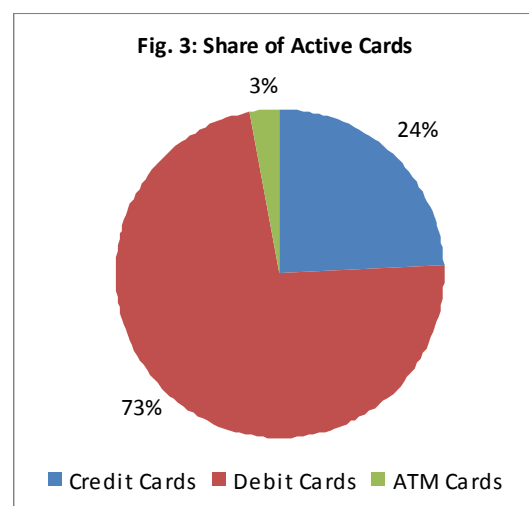
At the end of Q3 FY2007-2008, total 6.4 million credit, debit and ATM only cards were in circulation against 6.7 million in the previous quarter (Fig. 3). This shows a decrease of 3.8% in cards in comparison with the previous quarter (figure 3). The current decline in cards is due to increase in cancellation of cards by a number of banks. As per usual practice, banks cancel cards if they are not used by the customer for a certain time period.

#### 2.2.1 Credit Cards

Total number of credit cards decreased from 1.66 million to 1.55 million in Q3 FY2007-2008, registering a decrease of 6.8% over the previous quarter. Islamic credit cards have also been introduced numbering 3,842 out of 1.66 million credit cards.

#### 2.2.2 Debit Cards

Total number of debit cards decreased from 4.8 million in Q2 FY2007-2008 to 4.7 million in Q3 FY2007-2008, showing a decrease of 2.8% over the previous quarter. Most of the banks are issuing debit cards to their new customers/account holders.



### 2.2.3 ATM Only Cards

In Q3 FY2007-2008, total number of ATM cards was 0.189 million against 0.191 million cards reported in the previous quarter. This shows a decrease of 1.1% cards over the previous quarter. There are few banks which still offer ATM only cards to their account holders.

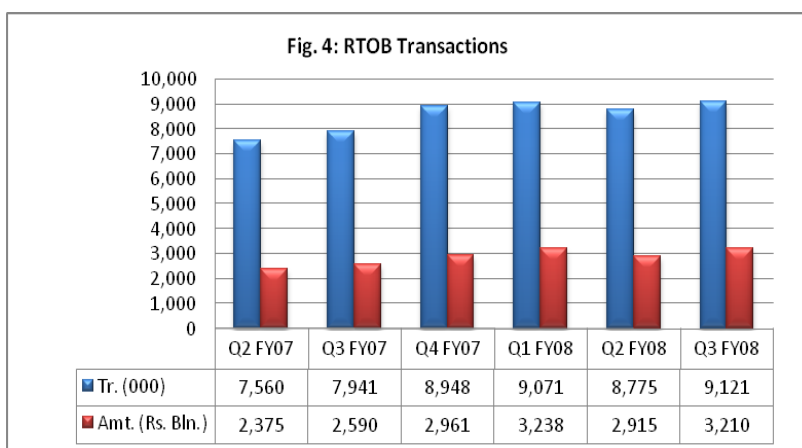
### 2.3 Smart Cards

Smart card is a chip based card with enhanced memory and security features. Out of the total 6.4 million cards, 0.372 million cards are chip based which is 5.8% of the total cards. During this quarter the number of chip based cards decreased by 9.9%. Currently there are only few banks which are issuing smart cards.

## 3. Volume and Value on E-Banking Channels

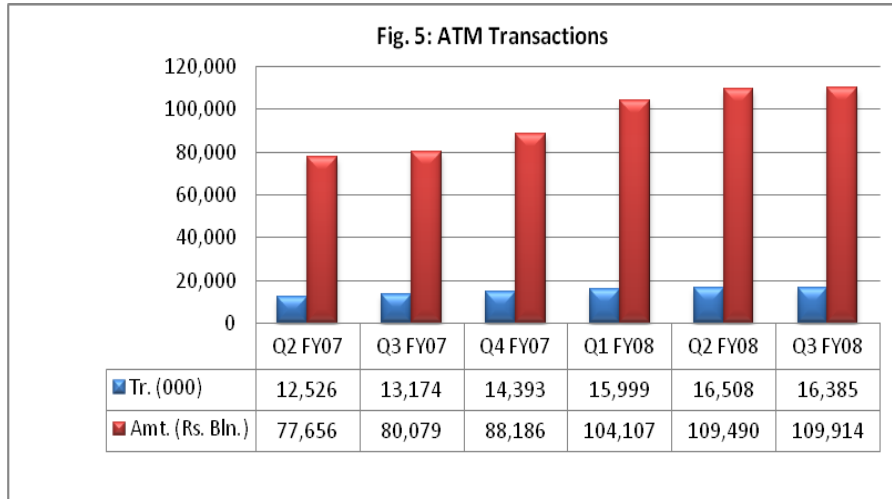
### 3.1 Real Time Online Banking Transactions

During Q3 FY2007-2008, the number of RTOB transactions increased by 3.9% against 3.3% decline in the previous quarter. In terms of value, the amount increased by 10.1% compared with 10.0% decline recorded for the previous quarter. The trend in RTOB growth since Q2 FY07 is given in Fig. 4:



### 3.2 Transactions through ATMs

ATMs transactions during the Q3 FY2007-2008 registered a decrease of 0.7% against 3.2% increase in number of transaction in the previous quarter. The amount of ATM transactions increased by 0.4% against 5.2% increase in the previous quarter. The decline in ATM transactions is due to damage to 148 ATMs in the aftermath of Dec. 27, 2007 incident. It is expected that the normal growth pattern would continue from the 4<sup>th</sup> quarter, as the damaged machines have been fixed. Apart from cash withdrawal ATMs are also used for inter/intra bank funds transfer, cash deposits, payment of utility bills etc. On average, 60 transactions were executed per day per ATM and average transaction size was Rs. 6,708. The average ATM transaction size has increased compared with all the previous quarters. Growth in the use of ATMs since Q2 FY07 is given in Fig. 5



### 3.2.1 Fund Transfers

During Q3 FY2007-2008, account-to-account funds transfer transactions made through ATMs were 0.192 million, showing an increase of 17.8%. The value of such funds transfer was Rs.10.4 billion, depicting an increase of 18.6%. Funds transfer through ATMs mostly includes intra-bank transfer and small portion of inter-bank funds transfers. The inter-bank fund transfer is only offered by 11 banks on ILink switch.

### 3.2.2 Cash Deposits

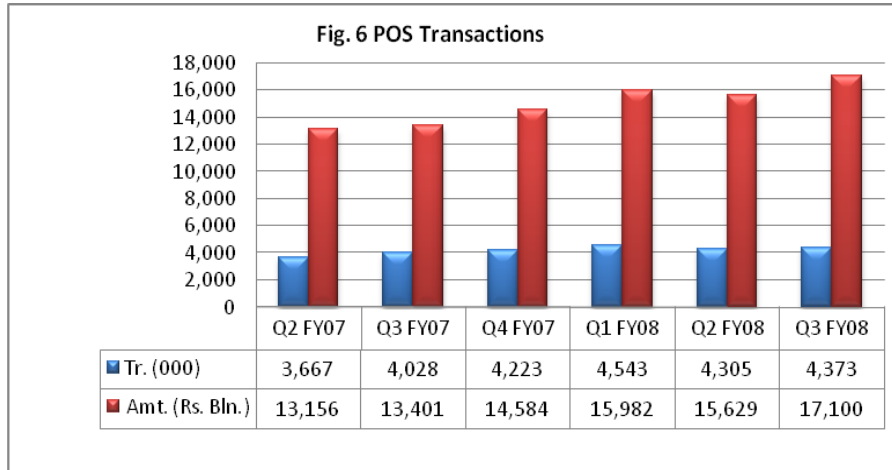
Quite a few banks are providing the facility of cash deposit through ATMs. The mechanism for cash deposit is either through single/bunch note acceptor or envelope based. During Q3 FY2007-2008 only 2,770 transactions of cash deposit through ATMs were reported against 2,190 transactions during the previous quarter, showing an increase of 26.6% in number and 12.5% increase in the amount of transactions from the previous quarter.

### 3.2.3 Utility Bills Payment

During Q3 FY2007-2008, banks reported 7,607 transactions against 6,430 of Utility Bills payment transactions recorded for the previous quarter; this shows an increase by 18.2% in number of transactions. The utility bills payment involved an amount of Rs.8.5 million as compared to Rs.8.3 million recorded for the previous quarter. In value terms, the increase by 2.2% was observed compared with the previous quarter.

### 3.3 POS (Point of Sale) Transactions

The total number of POS machines recorded for this quarter was 54,471 compared with 52,474 machines recorded for the previous quarter. This shows an increase by 3.8% over the previous quarter. The numbers of POS transactions increased by 1.6% compared with 5.2% decline in the previous quarter. The amount of such transactions increased by 9.4% against the decline of 2.2% recorded for the previous quarter. Transactions through POS since Q2 FY07 are given in Fig. 6:



### 3.4 Call Centre Banking

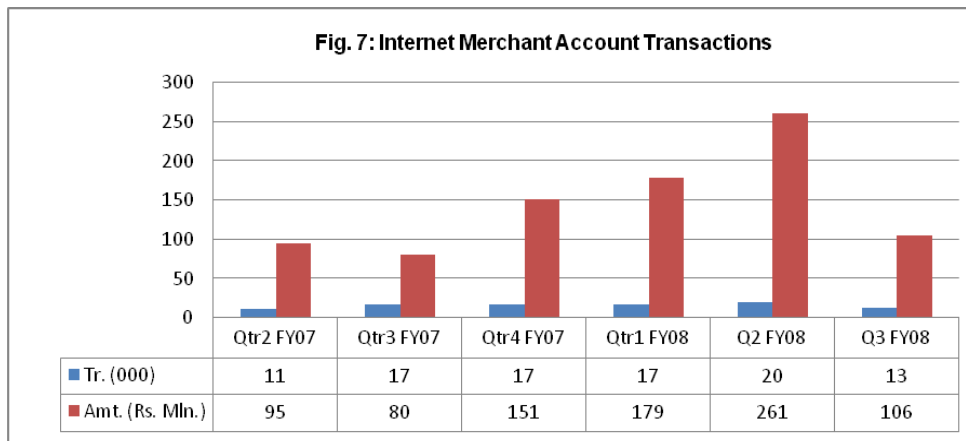
Banking through Call Centre/Interactive Voice Response (IVR) is also included in the electronic banking channels. The number of transactions through such channels reported by the banks for Q3 FY2007-2008 were 0.210 million involving an amount of Rs.2.4 billion. This shows an increase by 11.4% in numbers and 5.2% in amount over the last quarter.

### 3.5 Internet Banking

Internet banking includes payments and electronic funds transfer (EFT). The funds transfer, however, is presently limited to intra bank account to account funds transfer except for a bank which offers interbank funds transfer facility through internet. Internet banking in Pakistan is growing slowly but at a steady pace. During Q3 FY2007-2008, banks reported 0.354 million transactions involving an amount of Rs.12.6 billion; this shows a growth of 11.6% in numbers and an increase of 23.1% in amount over the last quarter.

### 3.6 Internet Merchant Banking

Transactions done through internet merchant account are part of Internet Merchant (IM) Banking. There were a total of 20 internet merchant accounts in Q3 FY2007-2008. Mostly service sector/NGOs are IM account holders. The number as well as amount of transactions done through internet merchant accounts is not consistent as transactions done are of seasonal nature and covers activities like air fares, college fee payments etc. This quarter registered a decrease by 35.0% in number against 17.6% increase in the previous quarter. In terms of value, there was decrease recorded by 59.4% against 46.2% increase recorded for the previous quarter (Fig 7).



### 3.7 Cross Border Transactions through E-Banking (ATM, POS, Internet)

Cross border transactions include only those transactions which were executed using either an ATM / POS machine or Internet. ATM transactions include cash withdrawal through ATMs, the inflow of such transactions has decreased by 6% compared with increase in outflow by same 6% over the previous quarter. The POS transactions include purchases of goods and services by the customers. The inflow of POS transactions increased by 12% while the outflow decreased by 1% against the previous quarter. The internet transactions include the purchase of goods and services using foreign/local internet merchants. The inflow of internet transactions increased by 3% and at the same time there is huge increase by 200% in outflow through internet transaction against the previous quarter. The foreign merchants include names like eBay, Amazon, Google etc. Internet transactions also include payment of fee for foreign universities and online courses like ACCA, CIMA etc.

The Comparison of cross border transactions, showing in-flow and out-flow of money through e-banking, is given in Table 2:

**Table 2: Comparison of Cross Border Payment Transactions Through E-Banking**

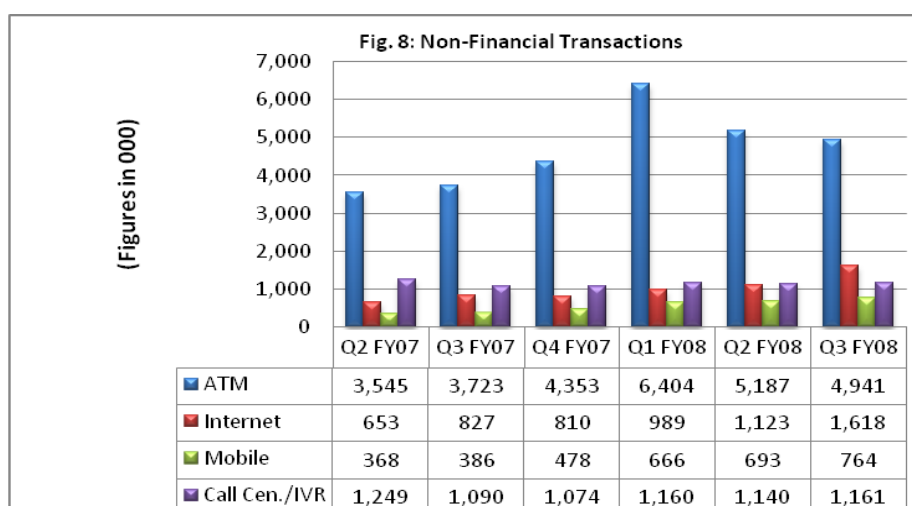
(Rs. In Millions)

Means of Transaction	Inflow of Money (Inward remittance)		Outflow of Money (Outward remittance)		Net	
	Q2FY07-08	Q3FY07-08	Q2FY07-08	Q3FY07-08	Q2FY07-08	Q3FY07-08
ATM	2,173	2039	(301)	(318)	1,872	1,721
POS	2,234	2504	(1,836)	(1,809)	398	695
INTERNET	49	50	(88)	(265)	(40)	(215)
<b>Total</b>	<b>4,455</b>	<b>4,593</b>	<b>(2,225)</b>	<b>(2,392)</b>	<b>2,230</b>	<b>2,201</b>

The above table indicates that the volume of cross border e-banking transactions (net inflow) decreased by 1.3% as compared to a decline of 10.3% reported in the previous quarter.

### 3.8 Non-financial E-Banking Transactions

Channels of e-banking are also used for non-financial transactions like the balance inquiry, account statements, etc. The total number of non-financial transactions reported during the quarter was 8.4 million against 8.1 million recorded in the previous quarter as shown in Fig. 8.



#### 4. List of Acronyms

---

ATM	Auto Teller Machine
IB	Internet Banking
CC	Call Center
POS	Point of Sales
RTOB	Real Time Online Branches
eBanking	Electronic Banking
mBanking	Mobile Banking
IMA	Internet Merchant Account
IVR	Interactive Voice Response

Note: The discrepancy in figures may occur because of rounding off data.