



STATE BANK OF PAKISTAN

4th Quarterly Report on
The Retail Payment Systems of Pakistan (*Paper Based and E-Banking*)
FY 2007-08

Payment Systems Department
(Development & Policy Division)

Table of Contents

	EXECUTIVE SUMMARY	1
1	Introduction	3
1.1	The Retail Payments through Paper Based Instruments.....	4
1.2	The Retail Payments through eBanking.....	5
1.3	Share of ATMs, POS and RTOB in eBanking Operations.....	6
1.4	Transition to eBanking.....	6
2	eBanking Infrastructure in Pakistan	7
2.1	Online Branch Network and Automated Teller Machines (ATMs).....	7
2.2	Number of Cards.....	7
2.2.1	Credit Cards.....	7
2.2.2	Debit Cards.....	8
2.2.3	ATM Cards.....	8
2.2.4	Smart Cards.....	8
3	Volume and Value on E-Banking in Pakistan	8
3.1	Real Time Online Banking (RTOB) Transactions.....	8
3.2	Transactions through ATMs.....	8
3.2.1	Fund Transfers.....	9
3.2.2	Cash Deposits.....	9
3.2.3	Utility Bills Payment.....	9
3.3	POS (Point of Sale) Transactions.....	9
3.4	Call Centre Banking.....	10
3.5	Internet Banking.....	10
3.6	Mobile Banking.....	11
3.7	Internet Merchant Banking.....	11
3.8	Cross Border Transactions through eBanking (ATM, POS, Internet).....	11
3.9	Non-financial eBanking Transactions.....	12
4	List of Acronyms	13

List of Figures

Figures	Page No.	Title
Fig. 1(a):	3	Volume of Transactions
Fig. 1(b):	3	Value of Transactions
Fig. 2(a):	4	Volume – PaperBased Transactions
Fig. 2(b):	4	Value – PaperBased Transactions
Fig. 3(a):	5	Share in Paper Based Transaction Volume
Fig. 3(b):	5	Share in Paper Based Transaction Value
Fig. 4(a):	5	Volume – Electronic Transactions
Fig. 4(b):	5	Value – Electronic Transactions
Fig. 5(a):	6	Share in e-Banking (Volume of Transactions)
Fig. 5(b):	6	Share in e-Banking (Valueof Transactions)
Fig. 6:	7	Number of ATMs and Real Time Online Branches
Fig. 7:	7	Share of Active Cards
Fig. 8:	8	RTOB Transactions
Fig. 9:	9	ATM Transactions
Fig. 10:	10	POS Transactions
Fig. 11:	11	Mobile Banking Transactions
Fig. 12:	11	Internet Merchanrt Account Transactions
Fig. 13:	12	Non Financial Transactions

List of Tables

Tables	Page No.	Title
Table 1:	4	Paper Based Instruments
Table 2.1:	6	Volume – Retail Electronic and paper Based Payments
Table 2.2:	7	Value – Retail Electronic and paper Based Payments
Table 3:	12	Comparison of Cross Border Payment Transactions

EXECUTIVE SUMMARY:

Total Retail Payments:

During Qtr-4, the volume and value of total retail payments transactions in the country reached at 118.3 million and Rs.44 trillion respectively showing an increase of 6.0 percent in number and 20.1 percent increase in value as compared to 2.2 percent decline in numbers and 5.4 percent increase in value in the previous quarter.

Paper Based:

During Qtr-4, the volume and value of paper based transactions in the country reached 84.3 million and Rs.39.9 trillion showing an increase of 4.0 percent in numbers and 19.8 percent increase in value as compared to 3.4 percent decline in numbers and 5.0 percent increase in value in the previous quarter.

eBanking:

During Qtr-4, the volume and value of eBanking transactions in the country reached 34.0 million and Rs.4.1 trillion showing an increase of 11.4 percent in numbers and 22.8 percent increase in value as compared to 1.2 percent increase in numbers and 9.8 percent increase in value in the previous quarter.

Debit & Credit Cards:

The quantity of active (in-use) debit / credit cards during Qtr-4 reached 6.7 million which shows an aggregate growth of 4.9 percent compared to 3.8 percent decline in the previous quarter. Here the quantity of credit cards has infact decreased by 0.3 percent as compare to 6.8 percent decline in the previous quarter reaching at 1.5 million. In contrast, debit cards showed a growth of 6.1 percent as compared to 2.8 % decline in previous quarter and stood at 5.0 million.

Infrastructure:

The total quantity of ATM machines during Qtr-4 reached at 3,121 registering a growth of 3.3 percent as compare to 15.4 percent increase in the previous quarter. The volume of Real Time Online Branches (RTOB) during Qtr-4 reached at 5,282 and recorded a growth of 3.1 percent as compared to 2.9 percent increase in the previous quarter. The volume of POS reached at 55,853 showing a growth of 2.5 percent in number as compared to 3.8 percent increase previous quarter.

ATM Transactions:

During Qtr-4, the volume and value of ATM transactions in the country reached 19.0 million and Rs.129.5 billion showing an increase of 16.1 percent in numbers and 17.8 percent increase in value as compared to 0.7 percent decline in numbers and 0.4 percent increase in value in the previous quarter.

RTOB Transactions:

During Qtr-4, the volume and value of RTOB transactions in the country reached 10.0 million and Rs.4.0 trillion showing an increase of 8.4 percent in numbers and 23.2 percent in value as compared to 3.9 percent increase in numbers and 10.1 percent increase in value in the previous quarter.

Other e Banking Channels:

During Qtr-4, the volume and value of eBanking channels (POS, Internet & Call Center/IVR, and Mobile) transactions in the country reached 5.03 million and Rs.32.4 billion showing an increase of 1.7 percent in numbers and 0.9 percent increase in value as compared to 2.7 percent increase in numbers and 14.0 percent increase in value in the previous quarter.

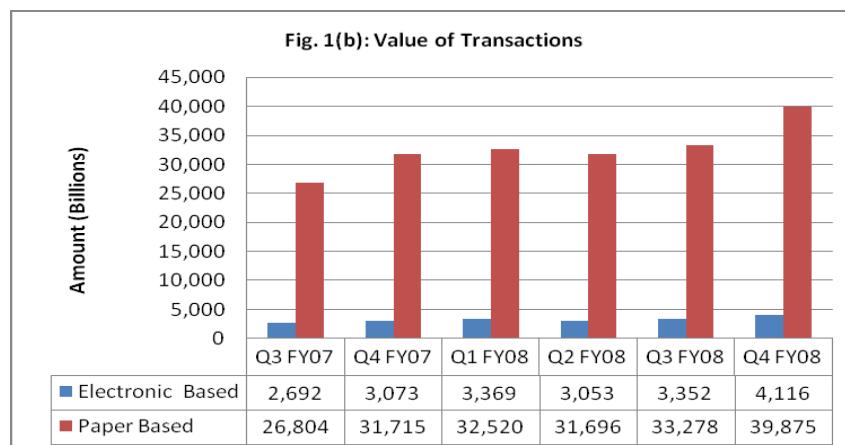
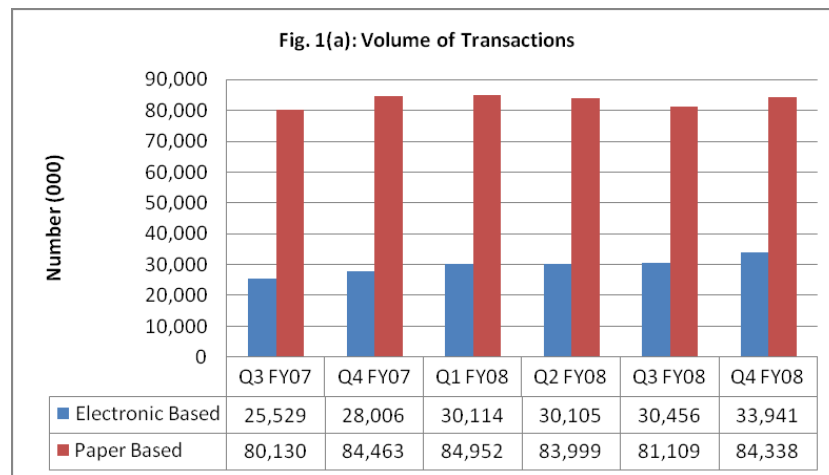
Transformation:

The use of electronic channels has been showing a consistent growth as during Qtr-4, the contribution of electronic transactions increased to 28.7 percent in numbers compared to 27.3 percent share recorded during Qtr-3. In terms of value, the electronic channel's composition reached 9.4 percent against 9.2 percent share recorded for the previous quarter.

1. Introduction

The 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 been gradually reducing 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 Qtr-4 FY2007-2008 the volume and value of total retail payment transactions registered an increase of 6.0 percent in volume against 2.2 percent decline in the previous quarter and an increase of 20.1 percent against 5.4 percent increase in the previous quarter in value.

The trend of paper and electronic based transactions and value since Q3 FY2006-2007 is given in the **Fig. 1a & 1b** mentioned below:

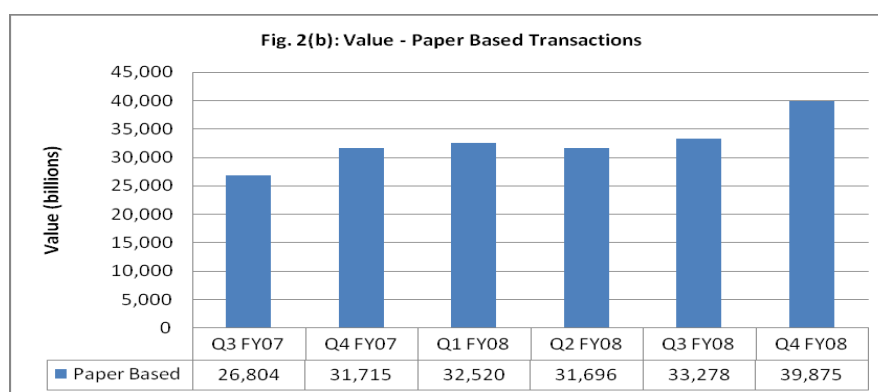
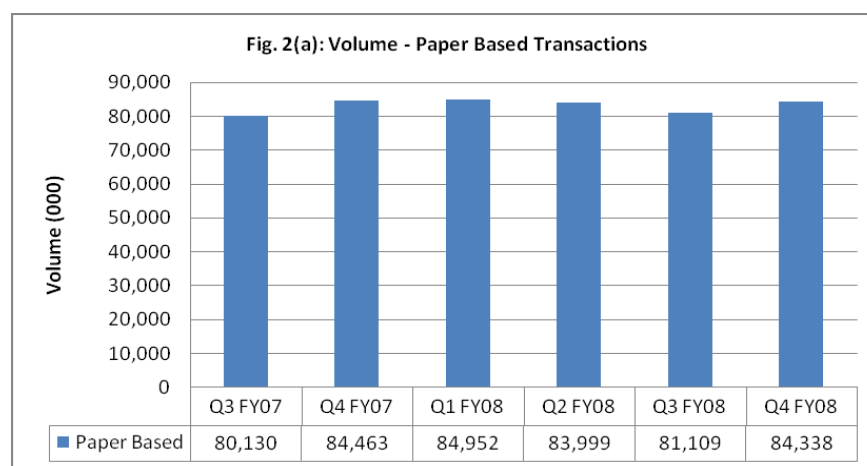


1.1 The Retail Payments through Paper Based Instruments

Qtr4 FY2007-2008 witnessed an increase of 4.0% in numbers compared with 3.4% decline in the previous quarter (Fig. 2a / Table-1). The value of transactions increased by 19.8% against 5.0% increase recorded during previous quarter. The subject increase, as reported by banks, is due to the end of fiscal year whereby most of the transactions are settled by June 30 (Fig 2 (b)).

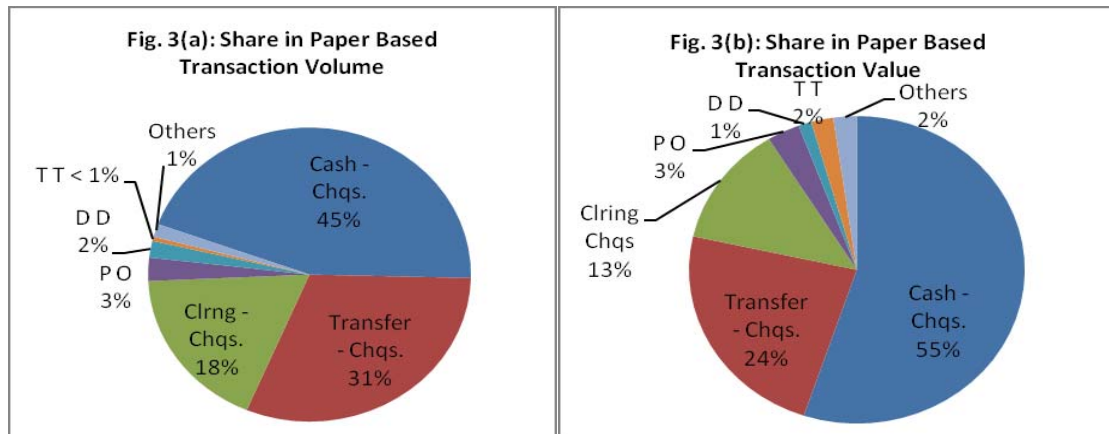
Table 1: Paper Based Instruments

Instruments	Qtr 3 FY08		Qtr 4 FY08	
	Number (M)	Value (T)	Number (M)	Value (T)
Cash – Cheques	38.1	16.4	↓ 37.8	↑ 22.0
Transfer - Cheques	22.6	9.5	↑ 26.1	↓ 9.3
Clearing - Cheques	14.5	4.7	↑ 15.1	↑ 5.1
Pay Orders	2.8	1.1	↓ 2.2	↑ 1.3
Demand Drafts	1.6	0.4	↓ 1.5	↑ 0.5
Tele. Transfers	0.5	0.6	↓ 0.4	↑ 0.9
Others	1.0	0.5	↑ 1.2	↑ 0.9
TOTAL	81.1	33.3	↑ 84.3	↑ 39.9



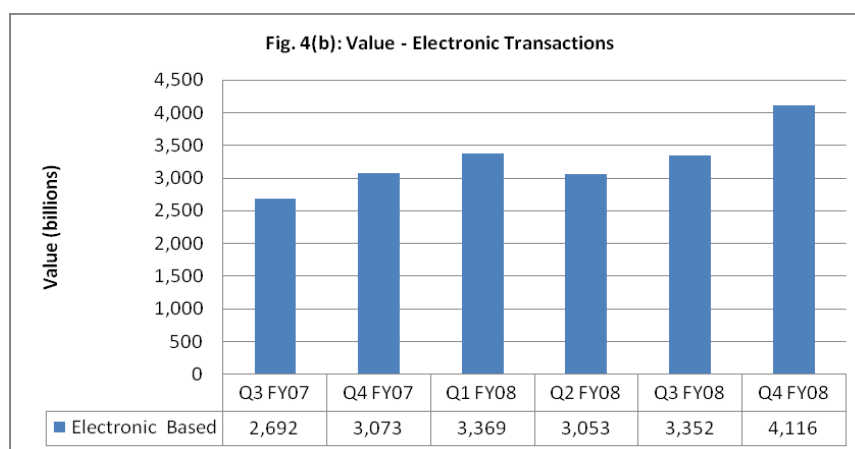
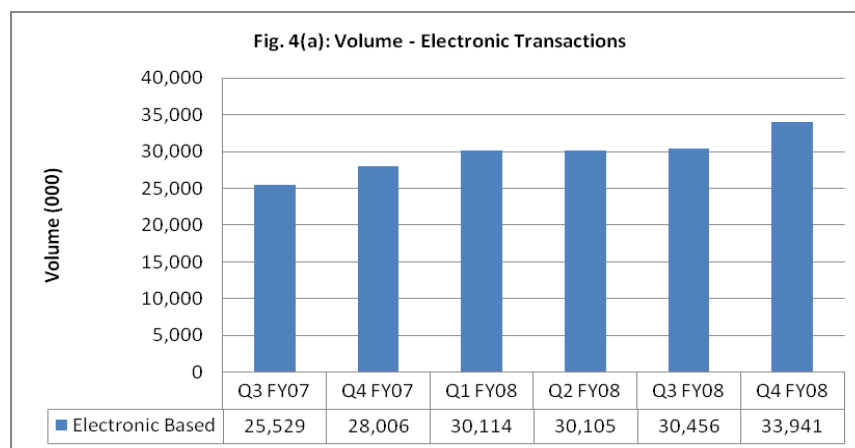
While looking at the composition of the paper based instruments, the cheques (such as cash, clearing, transfer) carry a major share i.e. 94 percent in volume and 91 percent in value. Here the cash cheques

have been the widely used paper based instrument with 45 percent share in volume and 55 percent share in value. The respective percentage share of all instruments is shown in the **Fig. 3a & 3b**.



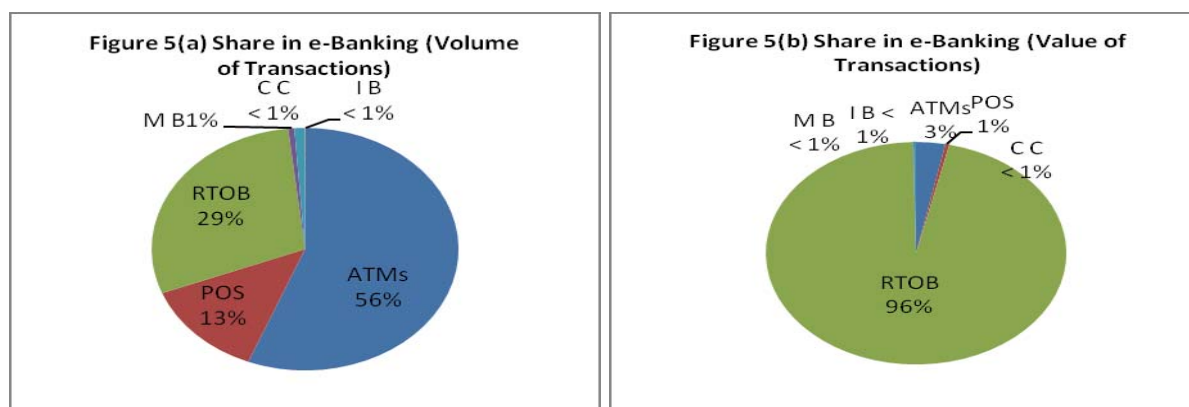
1.2 The Retail Payments through eBanking

In terms of volume, the electronic banking has recorded 34.0 million transactions showing 11.4 percent increase against the increase of 1.2% recorded in the previous quarter. In terms of value, it reached Rs.4.1 trillion showing a growth by 22.8 percent against 9.8% growth recorded in the previous quarter (**Fig. 4a & 4b**).



1.3 Share of ATMs, POS and RTOB in eBanking Operations

ATMs are commonly used for more frequent and small value cash withdrawals, therefore, its share in total number of electronic transactions was recorded to be the highest i.e. 56 percent. During Qtr-4 the average size of ATM transactions¹ was recorded at Rs.6807/= compared to Rs.6708 recorded during previous quarter. The share of Real Time Online Banking, ATM and POS in the total e-Banking was 29 percent, 56 percent and 13 percent respectively. Call Centre Internet Banking and Mobile Banking; however had comparatively low share in the total eBanking business (Fig. 5a). In terms of value, the RTOB contribution was 96 percent, since this channel is mostly used for B2B transactions. ATM transactions contributed 3 percent in the value of transactions. The share in value of POS, Internet, Mobile banking and Call Center banking is very nominal as mentioned in Fig. 5b below.



1.4 Transition to eBanking:

During the last six quarters the transition from manual (paper based) banking to e-banking has been gradual, yet consistent, in terms of both volume and value of transactions. The composition (in percentage) of electronic transaction increased to 28.7 percent of the total number of transactions as compare to 27.3 percent recorded last quarter. In terms of value, however, the same increased to 9.4 percent as compare to 9.2 percent recorded last quarter (Table 2.1 & 2.2).

Table 2.1: Volume - Retail Electronic and Paper Based Payments

Number of Transactions (000)						
Number (000)	Q3 FY07	Q4 FY07	Q1 FY08	Q2 FY08	Q3 FY08	Q4 FY08
Electronic Based	25,529	28,006	30,114	30,105	30,456	33,941
Paper Based	80,130	84,463	84,952	83,999	81,109	84,338
TOTAL	105,659	112,469	115,066	114,104	111,565	118,279
% Composition						
Electronic Based	24.2%	24.9%	26.2%	26.4%	27.3%	28.7%
Paper Based	75.8%	75.1%	73.8%	73.6%	72.7%	71.3%

¹ 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

Table 2.2: Value - Retail Electronic and Paper Based Payments

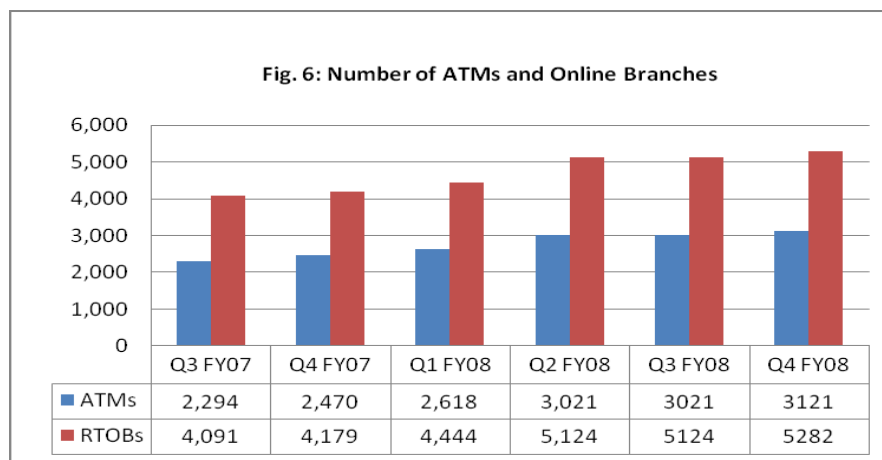
Amount of Transactions (Rs. In Billion)						
Amount (billion)	Q3 FY07	Q4 FY07	Q1 FY08	Q2 FY08	Q3 FY08	Q4 FY08
Electronic Based	2,692	3,073	3,369	3,053	3,352	4,116
Paper Based	26,804	31,715	32,520	31,696	33,278	39,875
TOTAL	29,503	34,789	35,889	34,748	36,630	43,991
% Composition						
Electronic Based	9.2%	8.8%	9.4%	8.8%	9.2%	9.4%
Paper Based	90.8%	91.2%	90.6%	91.2%	90.8%	90.6%

2. eBanking Infrastructure in Pakistan

2.1 Online Branch Network and Automated Teller Machines (ATMs)

During Qtr-4, banks have upgraded their existing 25 manual or computerized branches to online branches and started 133 new online branches thus increasing the total quantity of online branch network in Pakistan from 5,124 to 5282 branches.

The total share of online branches in the total branch network has increased from 63 percent to 64 percent. Similarly, during Qtr-4, banks have added 100 new ATMs in their network, bringing the total number of ATMs in the country to 3,121 thus reflecting a growth of 3.3 percent as compare to 15.4 percent growth recorded in the last quarter (**Fig. 6**).

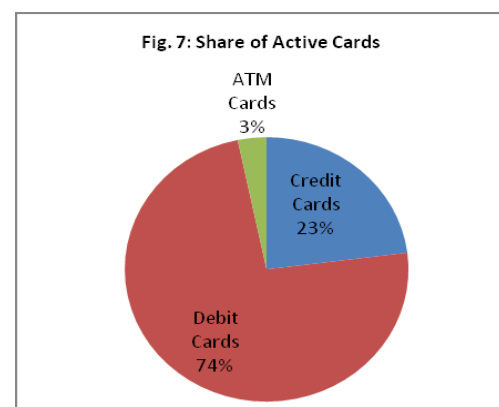


2.2 Number of Cards (Credit/Debit/ATM)

As of June 30, 2008, the total number of cards in circulation has reached at 6.73 million as compare to 6.42 million cards recorded in the last quarter showing an increase of 4.9 percent (**Fig. 7**).

2.2.1 Credit Cards

The total number of credit cards decreased from 1.551 million to 1.547 million in Qtr-4. The subject decrease



was recorded because many cards which remained inactive for a certain time period were cancelled by the issuing banks. Quantity of Islamic credit cards has reached at 3,670.

2.2.2 Debit Cards

Total number of debit cards has increased from 4.7 million to 4.9 million in Qtr-4 showing an increase of 6.1 percent. Here it has been observed that most of the banks are issuing debit cards to their new customers/account holders because the same can be used both at POS and ATM locations.

2.2.3 ATM Cards

During Qtr-4, the total number of ATM cards in circulation recorded at 0.221 million against 0.189 million cards reported during last quarter. This shows an increase of 16.1 percent.

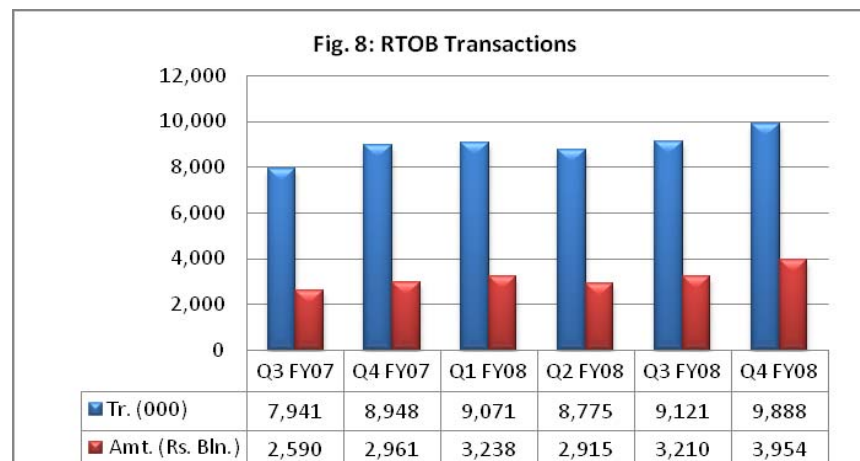
2.2.4 Smart Cards

Smart cards are chip based card with enhanced memory and security features. Out of 6.73 million debit/credit/ATM cards, 0.391 million or 5.81 percent are chip based cards. During Qtr-4, however, the total quantity of chip based cards increased by 5.2 percent.

3. Volume and Value on E-Banking in Pakistan:

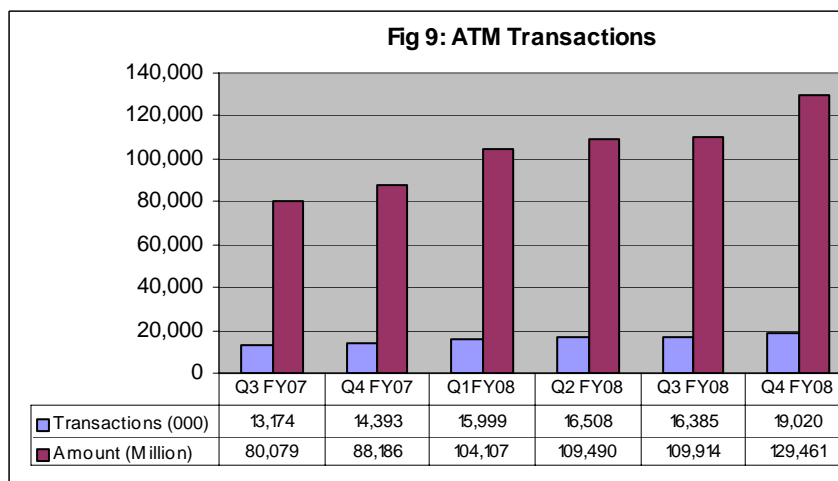
3.1 Real Time Online Banking (RTOB) Transactions:

During Qtr-4, the total number of RTOB transactions increased by 8.4 percent as compare to 3.9 percent increase recorded last quarter. In terms of value, the amount increased by 23.2 percent as compare to 10.1 percent increased last quarter. The significant growth in amount of transactions is due to the fact that RTOB now constitutes 5,124 branches (64 percent) out of total 8,311 branches. The major banks use RTOB channel for conducting various transactions which infact constitute 96 percent of total e-Banking transactions in the country (**Fig. 8**):



3.2 Transactions through ATMs

ATMs transactions during the Qtr-4 registered an increase of 16.1 percent as compare to 0.7 percent decreased last quarter. The amount of ATM transactions however, increased by 17.8 percent as compared to 0.4 percent increase in last quarter. Apart from cash withdrawal, ATMs are also used for inter/intra bank funds transfer, cash deposits, payment of utility bills etc. In Pakistan, on average, 68 transactions were executed per day per ATM. The size of average transaction is approximately Rs.6800/= (**Fig. 9**).



3.2.1 Fund Transfers

During Qtr-4, account-to-account funds transfer transactions which were made through ATMs, were recorded at 0.246 million showing an increase of 28.3 percent. The value of such funds transfer was Rs.13.125 billion, depicting an increase of 25.6 percent. 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 1Link switch.

3.2.2 Cash Deposits

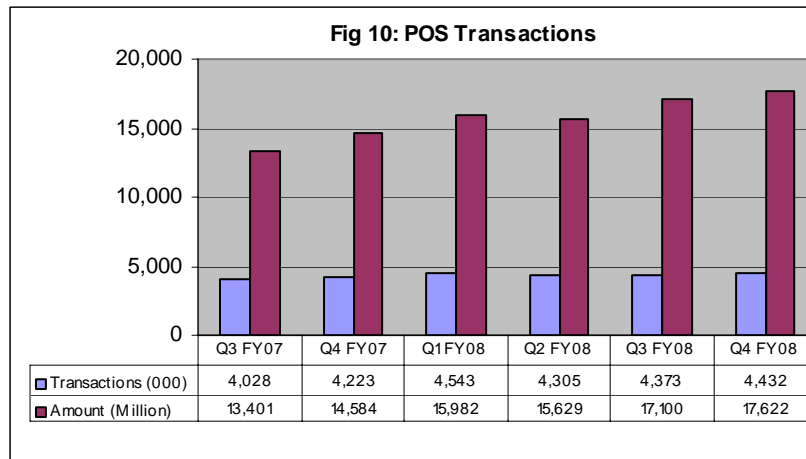
Quite a few banks are providing the facility of cash deposit through ATMs. The mechanism for cash deposit is either through single/bunch note acceptor or envelope based. During Qtr-4 only 3,481 transactions of cash deposit through ATMs were reported showing an increase of 25.6 percent in number. In terms of value, the amount increased from 30 million to 40 million for the current quarter.

3.2.3 Utility Bills Payment

During Qtr-4, the utility bills transactions both in volume and value showed a declining trend. Here banks reported 6,310 transactions as compare to 7607 transactions recorded last quarter with 17.1 percent decrease. In value terms, the banks reported Rs.7.6 million as compare to 8.5 million recorded last quarter showing 10.7 percent decrease.

3.3 POS (Point of Sale) Transactions

The total number of POS machines/terminals has reached 55,853 placed across the country on different merchant locations as compare to 54471 machines recorded last quarter which shows an increase of 2.5 percent. The number of POS transactions reached 4.4 million showing an increase of 1.4 percent as compare to 1.6 percent increase recorded last quarter. The amount of such transactions reached Rs.17.6 billion registering an increase of 3.0 percent as compare to 9.4 percent increase in last quarter (**Fig. 10**):



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 Qtr-4 FY2007-2008 were 0.22 million involving an amount of Rs.2.546 billion. This shows an increase by 4.7 percent in numbers and 5.9 percent in amount over the last quarter.

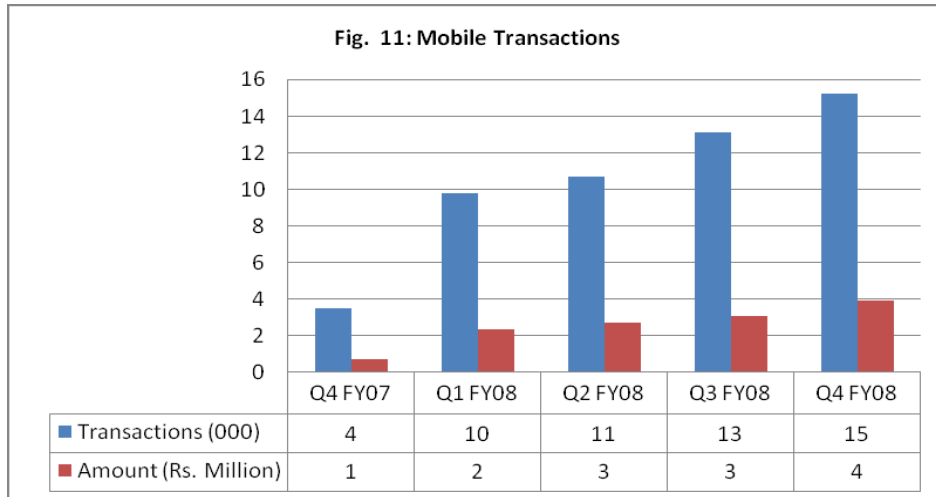
3.5 Internet Banking

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 Qtr-4 FY2007-2008, banks reported 0.365 million transactions involving an amount of Rs.12.196 billion; this shows a growth of 3.3 percent in numbers and decrease of 3.1 percent in amount over the last quarter.

3.6 Mobile Banking

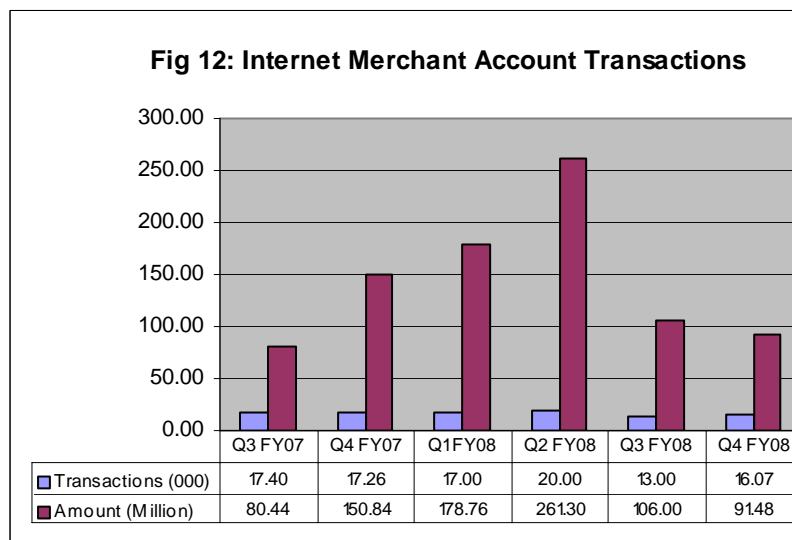
There are few banks which offer transactions through mobile. These transactions include payment through mobile (excluding utility bills payment), utility bills payment, A/C to A/c funds transfer and 3rd party A/c to A/C funds transfer.

The number of transactions reached 15 thousand for the current quarter from 13 thousand in the previous quarter. This shows an increase by 16 percent in number of mobile transactions compared with the previous quarter. In terms of value, the amount increase from Rs.3 million in the previous quarter to 4 million in the current quarter. This shows an increase by 27 percent for the amount of mobile transactions.



3.7 Internet Merchant Banking

Transactions done through internet merchant account are part of Internet Merchant (IM) Banking. There were a total of 19 internet merchant accounts in Qtr-4 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 an increase by 23.60 percent in number against 35 percent decrease in the previous quarter. In terms of value, there was decrease recorded by 13.7 percent against 59.4 percentage decrease recorded for the previous quarter (**Fig 12**).



3.8 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 4 percent compared to 6 percent decrease in the previous quarter whereas out flow increased by 15 percent compared to 6 percent increase in the previous quarter. The POS transactions include purchases of goods and services by the customers. The inflow of POS transactions

increased by 9 percent compared to 12 percent increased in the previous quarter while the outflow increased by 4 percent compared to 1 % decrease in 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 7 percent compared to 3 percent increase in the previous quarter where as the out flow increased by 29 percent compared to 200% increases in 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 3:

Table 3: Comparison of Cross Boarder Payment Transactions

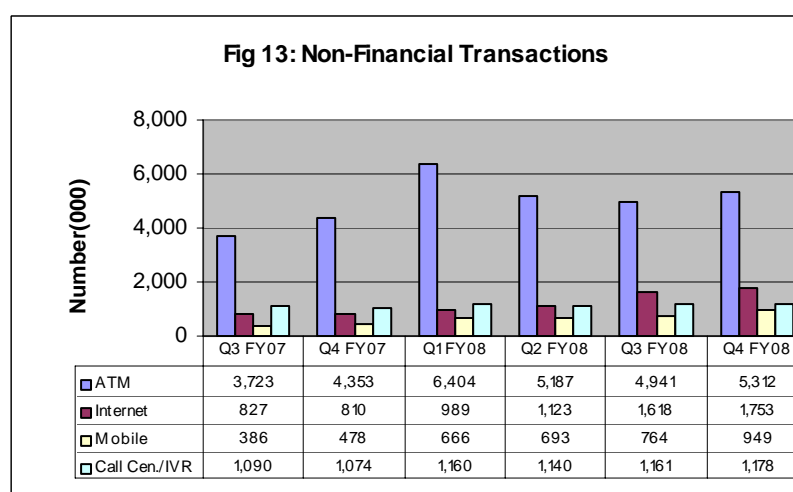
(Rs. In Millions)

Means of Transaction	Inflow of Money (Inward remittance)		Outflow of Money (Outward remittance)		Net	
	Q3FY07-08	Q4FY07-08	Q3FY07-08	Q4FY07-08	Q3FY07-08	Q4FY07-08
ATM	2039	1,958	(318)	(366)	1,721	1,593
POS	2504	2,727	(1,809)	(1,875)	695	852
INTERNET	50	53	(265)	(342)	(215)	(289)
Total	4,593	4,738	(2,392)	(2,582)	2,201	2,156

The above table indicates that the volume of cross border e-banking transactions (net inflow) decreased by 2.0 percent as compared to a decline of 1.3 percent reported in the previous quarter.

3.9 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 9.2 million against 8.4 million recorded in the previous quarter as shown in **Fig. 13**.



4. List of Acronyms

ATM	Auto Teller Machine
I B	Internet Banking
CC	Call Center
POS	Point of Sales
RTOB	Real Time Online Branches
e-Banking	Electronic Banking
m-Banking	Mobile Banking
IMA	Internet Merchant Account
IVR	Interactive Voice Response
M B	Mobile Banking

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