



STATE BANK OF PAKISTAN

The Retail Payment Systems of Pakistan
(Paper Based and E-Banking)
April - June 2008

Table of Contents

| | |
|---|----|
| 1. Introduction | 5 |
| 1.1 Retail Payments through Paper Based Instruments | 6 |
| 1.2 Retail Payments through E-Banking | 8 |
| 1.3 Contribution of ATMs, POS and RTOB in E-Banking Operations | 8 |
| 1.4 Transition to E-Banking | 9 |
| 1.4 Transition to E-Banking | 9 |
| 2. Electronic Banking In Pakistan | 10 |
| 2.1 Online Branch Network and Automated Teller Machines (ATMs) | 10 |
| 2.2 Number of Cards (Credit/Debit/ATM) | 10 |
| 2.2.1 Credit Cards | 10 |
| 2.2.2 Debit Cards | 10 |
| 2.2.3 ATM Cards | 11 |
| 2.3 Smart Cards | 11 |
| 3. Volume On E-Banking Channels | 11 |
| 3. Volume and Value on E-Banking Channels | 11 |
| 3.1 Real Time Online Banking Transactions | 11 |
| 3.2 Transactions through ATMs | 11 |
| 3.2.1 Fund Transfers | 12 |
| 3.2.2 Cash Deposits | 12 |
| 3.2.3 Utility Bills Payment | 12 |
| 3.3 POS (Point of Sale) Transactions | 12 |
| 3.4 Call Centre Banking | 13 |
| 3.5 Internet Banking | 13 |
| 3.6 Mobile Banking | 13 |
| 3.7 Debit Card Transactions | 14 |
| 3.8 Credit Card Transactions | 15 |
| 3.6 Internet Merchant Banking | 15 |
| 3.7 Cross Border Transactions through E-Banking | 15 |
| 3.8 Non financial E-Banking Transactions | 16 |
| 4. Acronyms | 17 |

List of Figures

| | |
|------------|--|
| Fig. 1(a): | Volume of Transactions |
| Fig. 1(b): | Value of Transactions |
| Fig. 2(a): | Volume – PaperBased Transactions |
| Fig. 2(b): | Value – PaperBased Transactions |
| Fig. 3(a): | Share in Paper Based Transaction Volume |
| Fig. 3(b): | Share in Paper Based Transaction Value |
| Fig. 4(a): | Volume – Electronic Transactions |
| Fig. 4(b): | Value – Electronic Transactions |
| Fig. 5(a): | Share in e-Banking (Volume of Transactions) |
| Fig. 5(b): | Share in e-Banking (Valueof Transactions) |
| Fig. 6: | Number of ATMs and Real Time Online Branches |
| Fig. 7: | Share of Active Cards |
| Fig. 8: | RTOB Transactions |
| Fig. 9: | ATM Transactions |
| Fig. 10: | POS Transactions |
| Fig. 11: | Mobile Banking Transactions |
| Fig. 12: | Debit Card Transactions |
| Fig. 13: | Credit Card Transactions |
| Fig. 14: | Internet Merchanrt Account Transactions |
| Fig. 15: | Non Financial Transactions |

List of Tables

| | |
|------------|---|
| Table 1: | Paper Based Instruments |
| Table 2.1: | Volume – Retail Electronic and paper Based Payments |
| Table 2.2: | Value – Retail Electronic and paper Based Payments |
| Table 3: | Comparison of Cross Border Payment Transactions |

EXECUTIVE SUMMARY

Total Retail Payments:

The volume of retail payments transactions during Q4 FY2007-2008 reached 118.3 million. This shows an increase of 6.0% in numbers whereas the value of these transactions reached at Rs.44.0 trillion recording a growth for retail payment transactions by 20.1% over the previous quarter.

Paper Based:

The volume of paper based transactions during Q4 FY2007-2008 reached 84.3 million. This shows an increase of 4.0% in numbers whereas the value of these transactions reached at Rs.39.9 trillion, recording a growth for paper based transactions by 19.8% over the previous quarter.

eBanking:

The volume of eBanking transactions during Q4 FY2007-2008 reached 34.0 million. This shows an increase of 11.4% in numbers whereas the value of these transactions reached at Rs.4.1 trillion, recording a growth for eBanking transactions by 22.8% over the previous quarter.

Debit & Credit Cards:

The volume of active cards during Q4 FY2007-2008 reached at 6.7 million. This shows a growth of 4.9% in number. Credit cards recorded decrease of 0.3% having reached at 1.5 million while debit cards recorded increase of 6.1% and stood at 5.0 million.

Infrastructure:

The volume of ATMs during Q4 FY2007-2008 reached at 3,121 registering a growth of 3.3% in number. The volume of Real Time Online Branches (RTOB) during Q4 FY2007-2008 reached at 5,282 and recorded a growth of 3.1%. The volume of POS reached at 55,853 showing a growth of 2.5% in number.

ATM Transactions:

The volume of ATM transactions during Q4 FY2007-2008 reached 19.0 million. This shows an increase of 16.1% in numbers whereas the value of these transactions reached at Rs.129.5 billion, recording a growth for ATM transactions by 17.8% over the previous quarter.

RTOB Transactions:

The volume of RTOB transactions during Q4 FY2007-2008 reached 10.0 million. This shows an increase of 8.4% in numbers whereas the value of these transactions reached at Rs.4.0 trillion, recording a growth for ATM transactions by 23.2% over the previous quarter.

Other eBanking Channels:

The volume of other eBanking channels (POS, Internet & Call Center/IVR, and Mobile) transactions during Q4 FY2007-2008 reached 5.03 million. This shows an increase of 1.7% in numbers whereas the value of these transactions reached at Rs.32.4 billion, recording a growth for ATM transactions by 0.9% over the previous quarter.

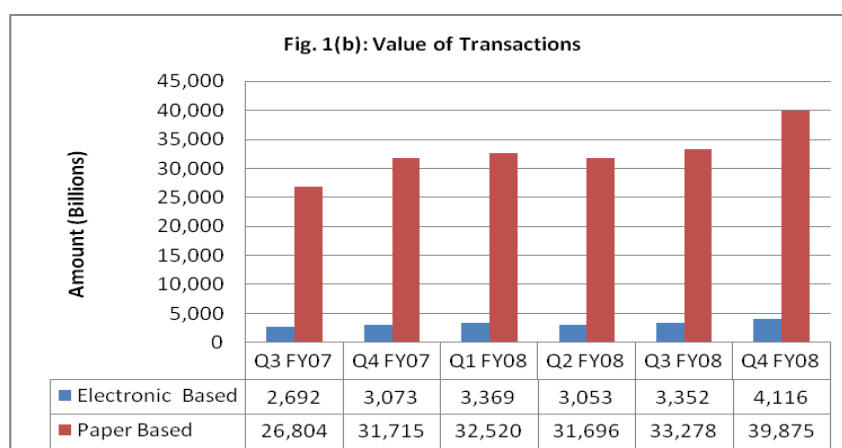
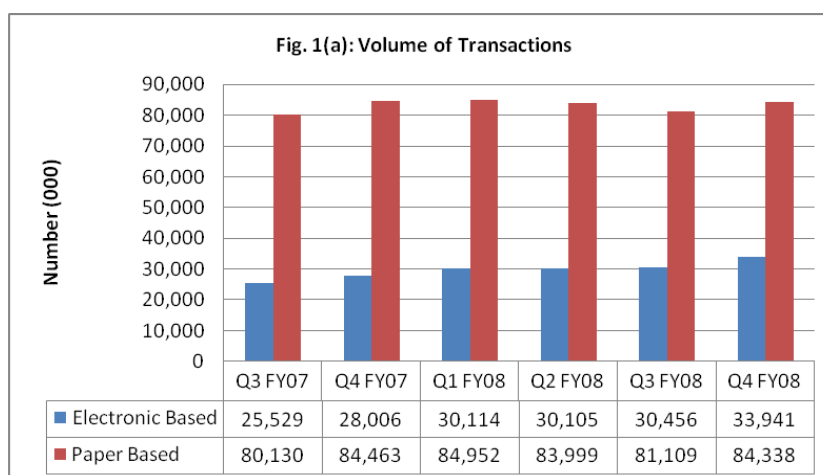
Transformation:

The use of electronic channels is consistently growing as contribution of electronic transactions increased to 28.7% in number terms compared with 27.3% recorded for the previous quarter. In terms of value, the electronic channel's composition reached 9.4% against 9.2% 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 Q4 FY2007-2008 volume of retail payment transactions registered an increase of 6.0% against 2.2% decline in the previous quarter. In terms of value, the amount increased by 20.1% against 5.4% increase in the previous quarter.

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



1.1 Retail Payments through Paper Based Instruments

Q4 FY2007-2008 witnessed an increase of 4.0% in numbers compared with 3.4% decline in the previous quarter (Fig. 2 (a)). The value of transactions increased by 19.8% against 5.0% increase in the previous quarter. As reported by banks, the major increase in retail payments value of transactions in this quarter is due to end of fiscal year. (Fig 2 (b)).

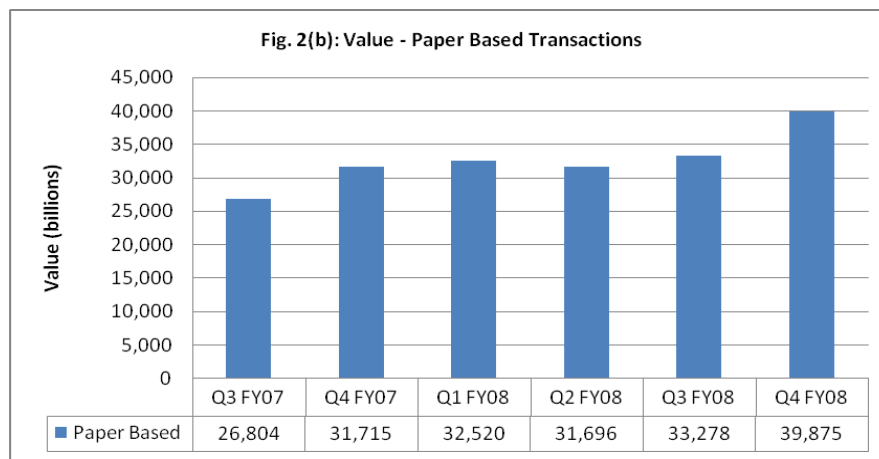
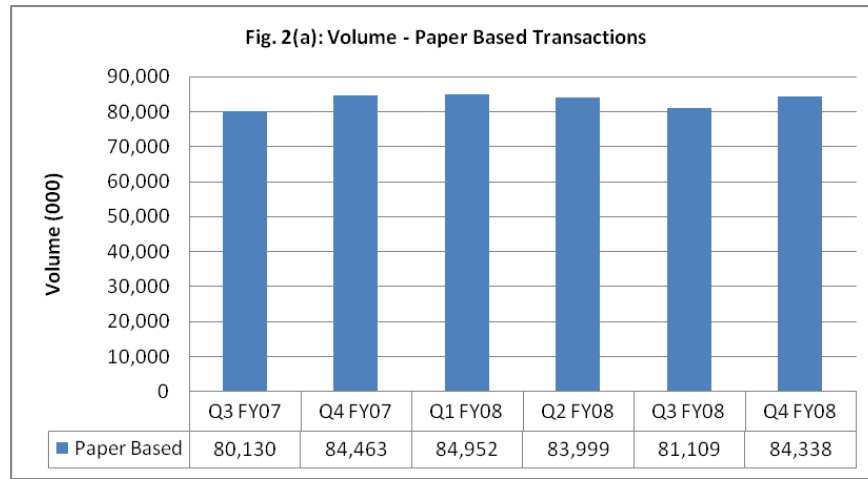
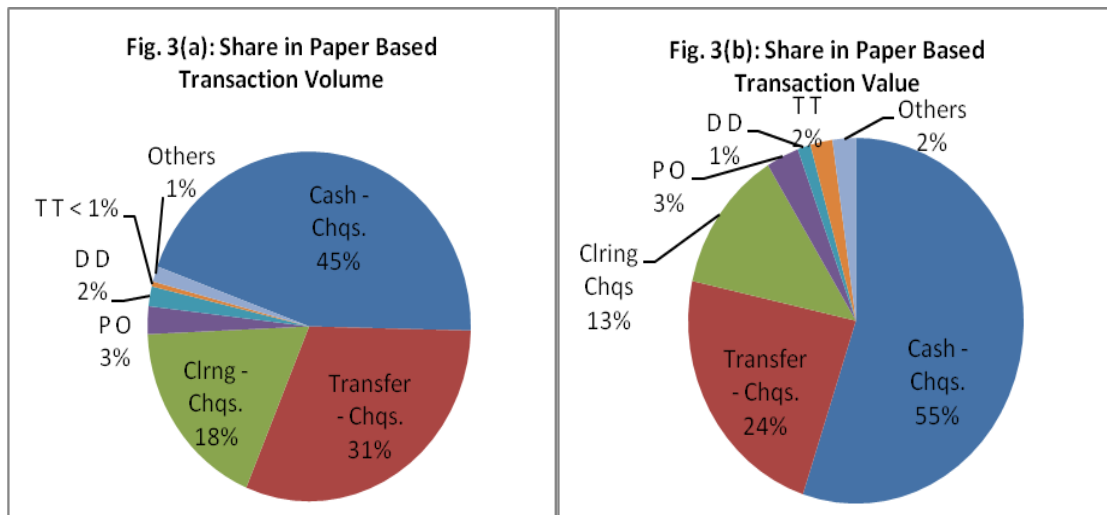


Table 1: Paper Based Instruments

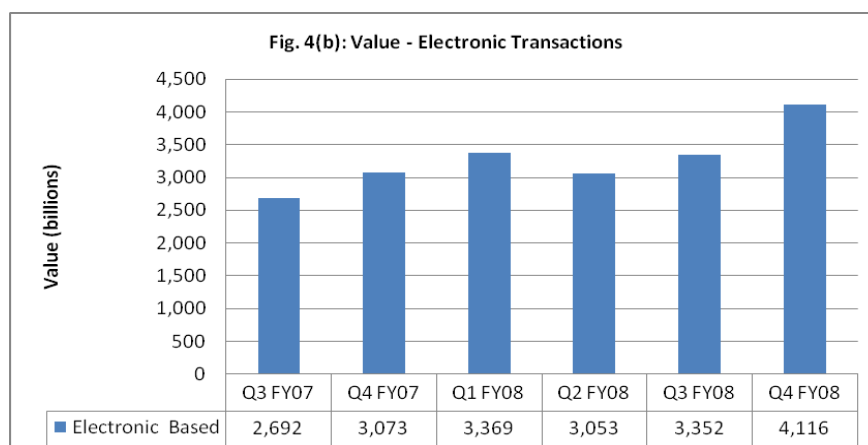
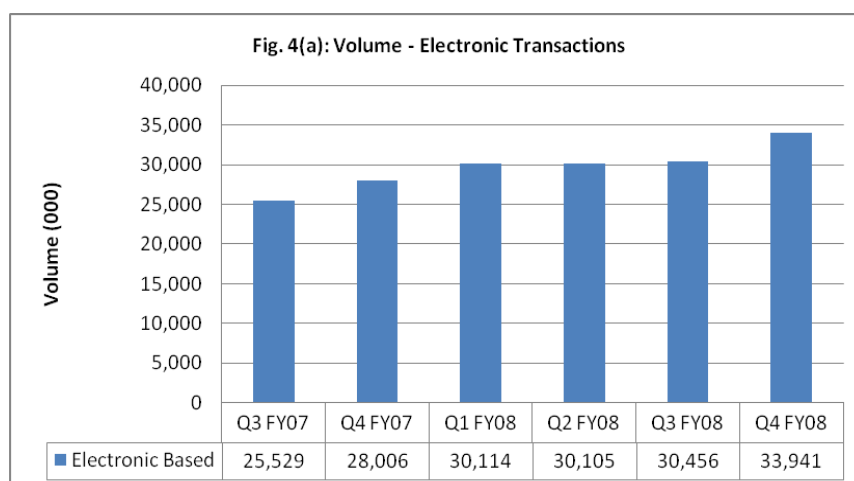
| Instruments | Qtr 3 FY08 | | Qtr 4 FY08 | |
|--------------------|------------------|-----------------------|------------------|-----------------------|
| | Number (million) | Amount Rs. (trillion) | Number (million) | Amount Rs. (trillion) |
| Cash – Cheques | 38.1 | 16.4 | 37.8 | 22.0 |
| Transfer - 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 |

Among the paper based instruments, cheques have a dominant share of 94% in volume and 91% in value. Among the cheques, cash cheques are the most widely used instrument with 45% share in volume and 55% share in value. The respective percentage share of all instruments is shown in the Fig. 3(a) & 3(b).



1.2 Retail Payments through E-Banking

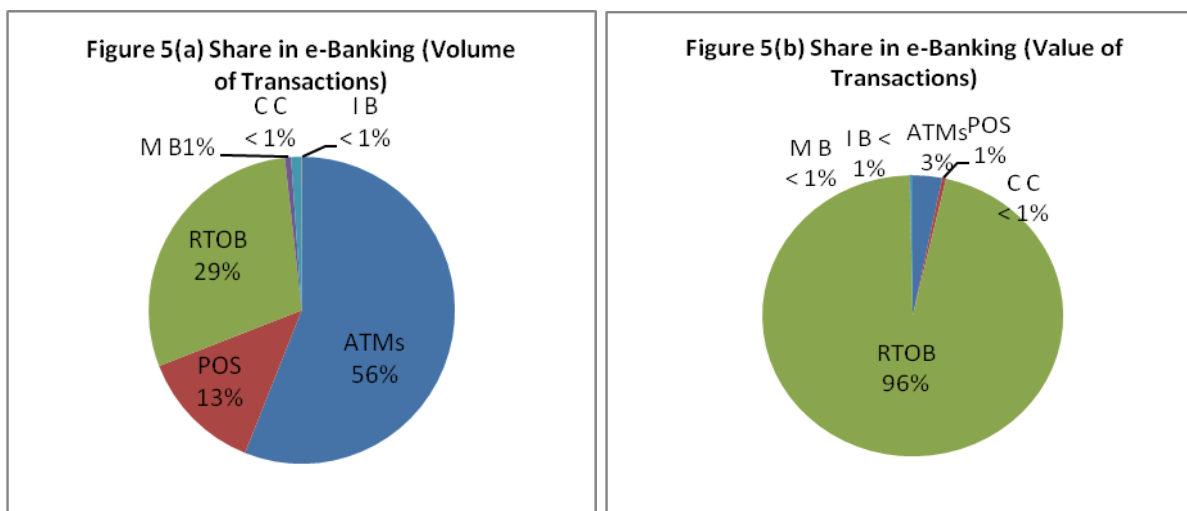
Electronic banking transactions recorded 34.0 million transactions showing a growth of 11.4% against the increase of 1.2% in the previous quarter. In terms of value, eBanking recorded Rs.4.1 trillion amount of transactions showing a growth by 22.8% against 9.8% increase in the previous quarter. (Fig. 4(a) & 4(b)).



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. 56%. ATMs usage for funds transfer has increased compared to the previous quarter. Average size of ATM transaction recorded for this quarter was Rs.6,807 compared with Rs.6,708 transactions size recorded for the previous quarter. The share of Real Time Online Banking, ATM and POS in the total e-Banking was 29%, 56% and 13% respectively. Call Centre Internet Banking and Mobile Banking; however had comparatively low share in the total E-Banking business. In terms of value, the contribution of RTOB banking was 96%, since this channel is mostly used for B2B transactions. ATM transactions contributed 3% in the value of transactions.

The share in value of POS, Internet, Mobile banking and Call Center banking is very nominal as reflected in Fig. 5(a) & 5(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 28.7% of total number of transactions compared with 27.3% recorded for the previous quarter. In terms of value, the electronic transaction composition was 9.4% against 9.2% in the previous quarter (Table 1-(a) & 1-(b)).

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% |

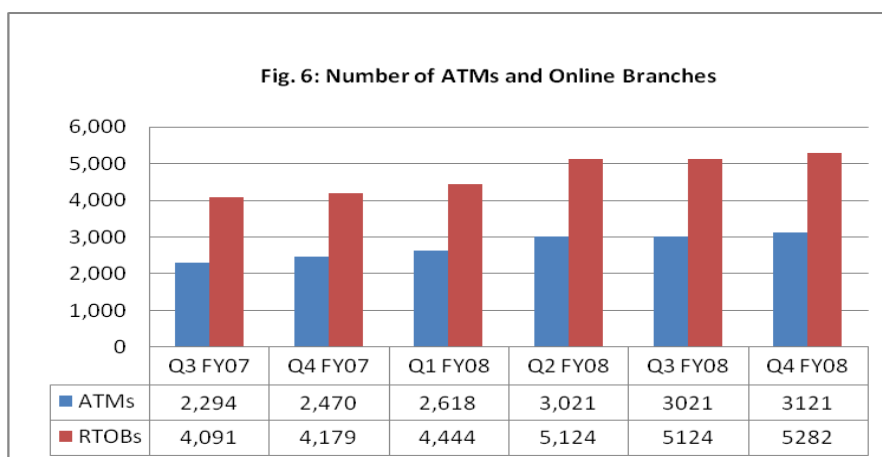
Table 2.2: Value - Retail Electronic and Paper Based Payments

| 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. Electronic Banking In Pakistan

2.1 Online Branch Network and Automated Teller Machines (ATMs)

During this quarter, banks converted 25 manual/computerized branches into online branches and added 133 new online branches, raising the total number of online branches from 5,124 to 5,282. The share of online branches in the total branch network increased from 63% in the previous quarter to 64% in the current quarter. Similarly, during the Q4 FY07-08, banks have added 100 new ATMs in their network, bringing the total number of ATMs to 3,121 (previous quarter recorded total 3,021 number of ATMs) reflecting a growth of 3.3% as compared to 15.4% growth in the previous quarter. The trend in number of ATMs and On-line Branches since Q3 FY07 is given in Fig. 6.



2.2 Number of Cards (Credit/Debit/ATM)

At the end of Q4 FY2007-2008, total 6.73 million credit, debit and ATM only cards were in circulation against 6.42 million in the previous quarter (Fig. 3). This shows an increase of 4.9% in cards in comparison with the previous quarter (Fig. 7).

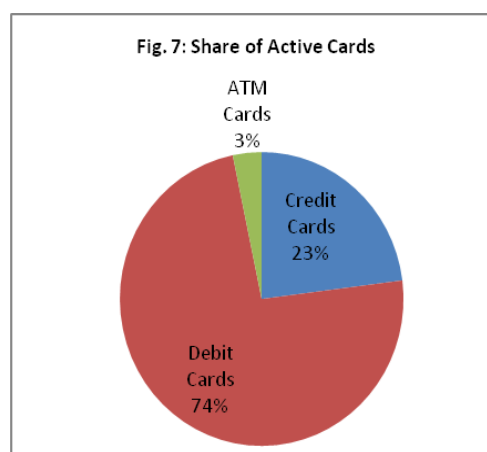
2.2.1 Credit Cards

Total number of credit cards decreased from 1.551 million to 1.547 million in Q4 FY2007-2008, registering a decrease of 0.3% over the previous quarter. The major reason for decrease in cards is the banks' policy to automatically cancel cards if they remain unused for stipulated time.

Islamic credit cards reached 3,670 out of 1.547 million credit cards for Q4 FY2007-2008.

2.2.2 Debit Cards

Total number of debit cards increased from 4.7 million in Q3 FY2007-2008 to 4.9 million in Q4 FY2007-2008, showing an increase of 6.1% 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 Q4 FY2007-2008, total number of ATM cards was 0.221 million against 0.189 million cards reported in the previous quarter. This shows an increase of 16.1% cards over the previous quarter. There are few banks which still offer ATM only cards to their account holders.

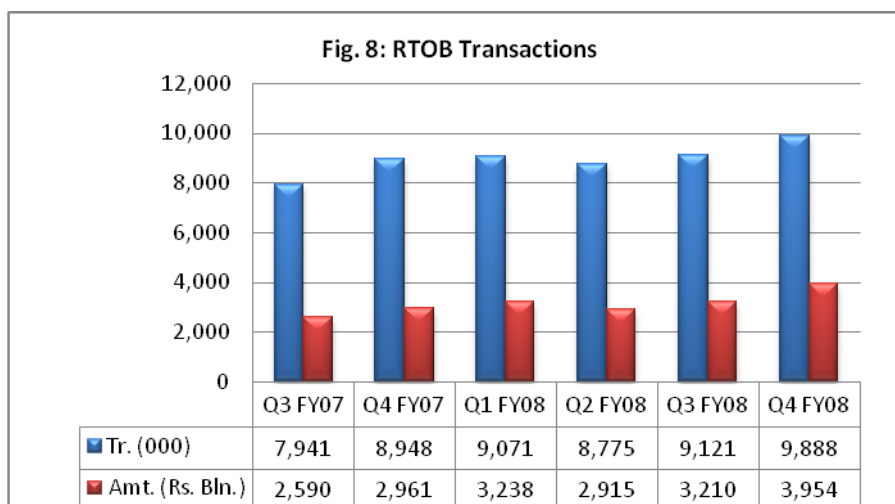
2.3 Smart Cards

Smart card is a chip based card with enhanced memory and security features. Out of the total 6.73 million cards, 0.391 million cards are chip based which is 5.81% of the total cards. During this quarter the number of chip based cards increased by 5.2%. Currently there are only few banks which are issuing smart cards.

3. Volume and Value on E-Banking Channels

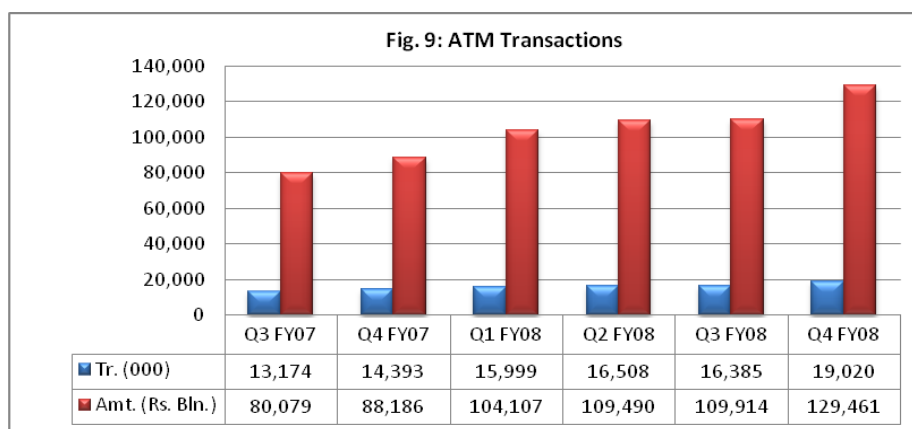
3.1 Real Time Online Banking Transactions

During Q4 FY2007-2008, the number of RTOB transactions increased by 8.4 % against 3.9% increase in the previous quarter. In terms of value, the amount increased by 23.2% compared with 10.1% increase recorded for the previous quarter. The significant growth in amount of transactions is due to the fact that RTOB now constitutes 5,124 branches (64%) out of total 8,311 branches. The major banks use RTOB channel heavily for transactions which as a result constitutes 96% of total e-Banking transactions. The trend in RTOB growth since Q3 FY07 is given in Fig. 8:



3.2 Transactions through ATMs

ATMs transactions during the Q4 FY2007-2008 registered an increase of 16.1% against 0.7% decline in number of transaction in the previous quarter. The amount of ATM transactions increased by 17.8% against 0.4% increase in the previous quarter. Apart from cash withdrawal ATMs are also used for inter/intra bank funds transfer, cash deposits, payment of utility bills etc. On average, 68 transactions were executed per day per ATM and average transaction size was Rs. 6,807. The average ATM transaction size has increased compared with all the previous quarters. Growth in the use of ATMs since Q3 FY07 is given in Fig. 9



3.2.1 Fund Transfers

During Q4 FY2007-2008, account-to-account funds transfer transactions made through ATMs were 0.246 million, showing an increase of 28.3%. The value of such funds transfer was Rs.13.125 billion, depicting an increase of 25.6%. 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

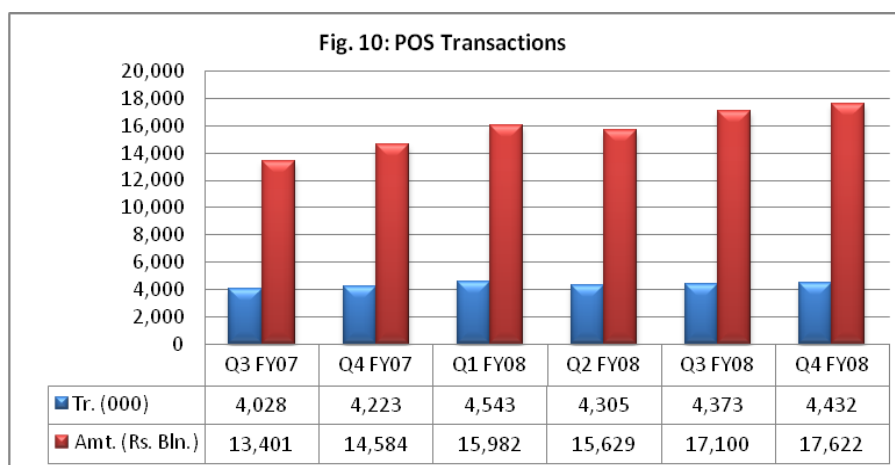
Quite a few banks are providing the facility of cash deposit through ATMs. The mechanism for cash deposit is either through single/bunch note acceptor or envelope based. During Q4 FY2007-2008 only 3,481 transactions of cash deposit through ATMs were reported against 2,770 transactions during the previous quarter, showing an increase of 25.6% 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 Q4 FY2007-2008, banks reported 6,310 transactions against 7,607 of Utility Bills payment transactions recorded for the previous quarter; this shows a decrease by 17.1% in number of transactions. The utility bills payment involved an amount of Rs.7.6 million as compared to Rs.8.5 million recorded for the previous quarter. In value terms, the decrease by 10.7% 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 55,853 compared with 54,471 machines recorded for the previous quarter. This shows an increase by 2.5% over the previous quarter. The number of POS transactions reached 4.4 million showing an increase by 1.4% compared with 1.6% increase in the previous quarter. The amount of such transactions reached Rs.17.6 billion registering an increase by 3.0% against the increase of 9.4% recorded for the previous quarter. Transactions through POS since Q3 FY07 are given in 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 Q4 FY2007-2008 were 0.22 million involving an amount of Rs.2.546 billion. This shows an increase by 4.7% in numbers and 5.9% in amount over the last quarter.

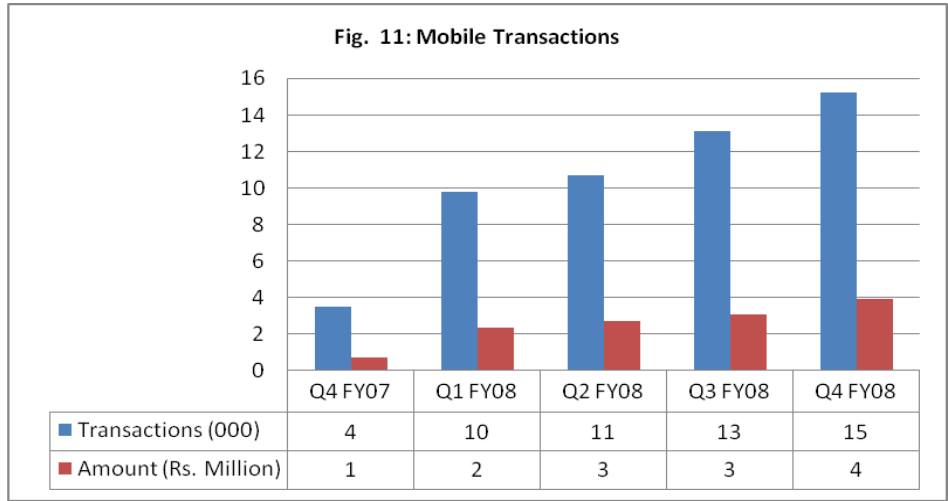
3.5 Internet Banking

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 Q4 FY2007-2008, banks reported 0.365 million transactions involving an amount of Rs.12.196 billion; this shows a growth of 3.3% in numbers and decrease of 3.1% in amount over the last quarter.

3.6 Mobile Banking

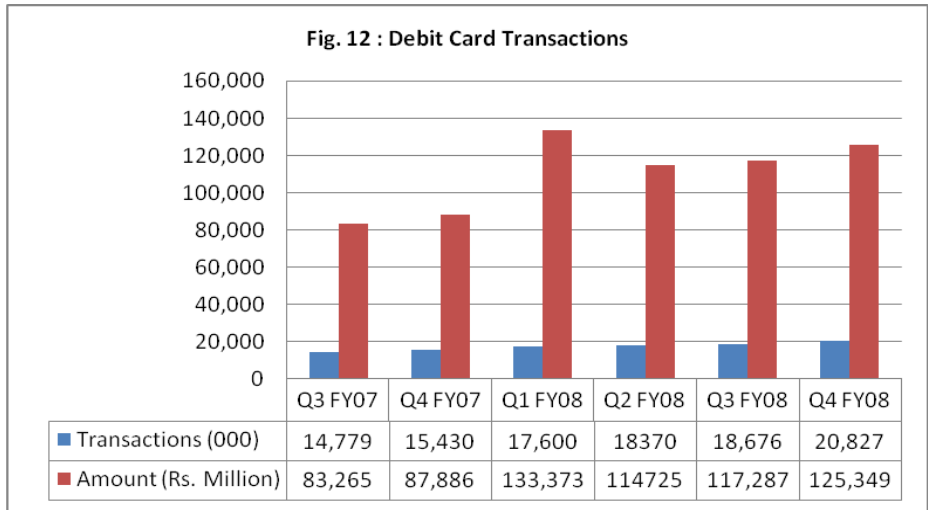
There are few banks which offer transactions through mobile. These transactions include payment through mobile (excluding utility bills payment), utility bills payment, A/C to A/c funds transfer and 3rd party A/c to A/C funds transfer.

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



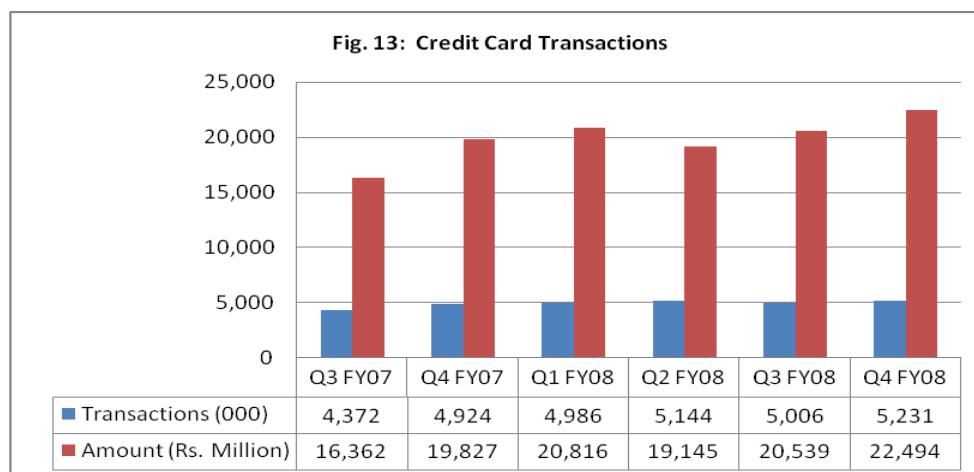
3.7 Debit Card Transactions

Transactions done through ATM, POS, internet, mobile and call center using ATM or debit card are included in debit card transactions. The number of debit card transaction reached 20.8 million for this quarter against 18.7 million transactions recorded for the previous quarter. This shows an increase by 12% in number of these transactions. In terms of value, the debit card transactions reached 125.3 billion for the current quarter against 117.3 billion recorded for the previous quarter. This shows an increase by 7% for the value of these transactions.



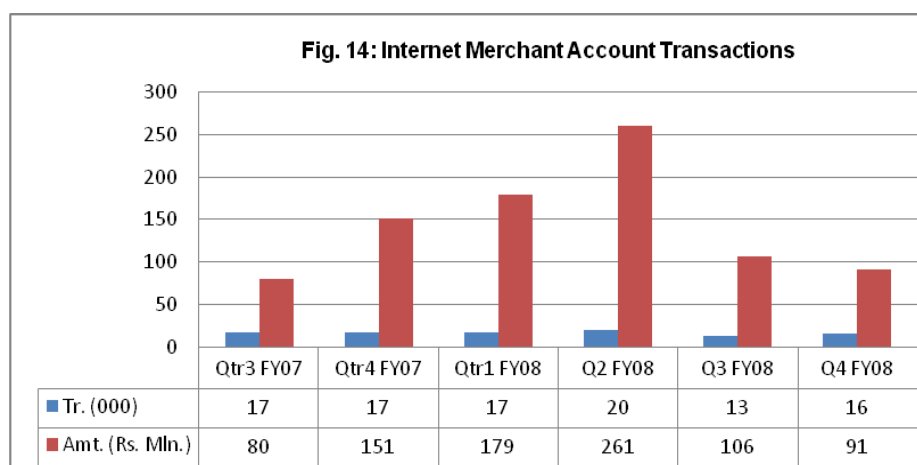
3.8 Credit Card Transactions

Transactions done through ATM, POS, internet, mobile and call center using ATM or debit card are included in credit card transactions. The number of credit card transaction reached 5.2 million for this quarter against 5.0 million transactions recorded for the previous quarter. This shows an increase by 5% in number of these transactions. In terms of value, the credit card transactions reached 22.5 billion for the current quarter against 20.5 billion recorded for the previous quarter. This shows an increase by 10% for the value of these transactions.



3.9 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 Q4 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% in number against 35% decrease in the previous quarter. In terms of value, there was decrease recorded by 13.7% against 59.4% decrease recorded for the previous quarter (Fig 7).



3.10 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% compared with increase in outflow by same 15% over the previous quarter. The POS transactions include purchases of goods and services by the customers. The inflow of POS transactions increased by 9% while the outflow increased by 4 % 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 7% and at the same time there is also increase by 29% 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 3: Comparison of Cross Boarder Payment Transactions

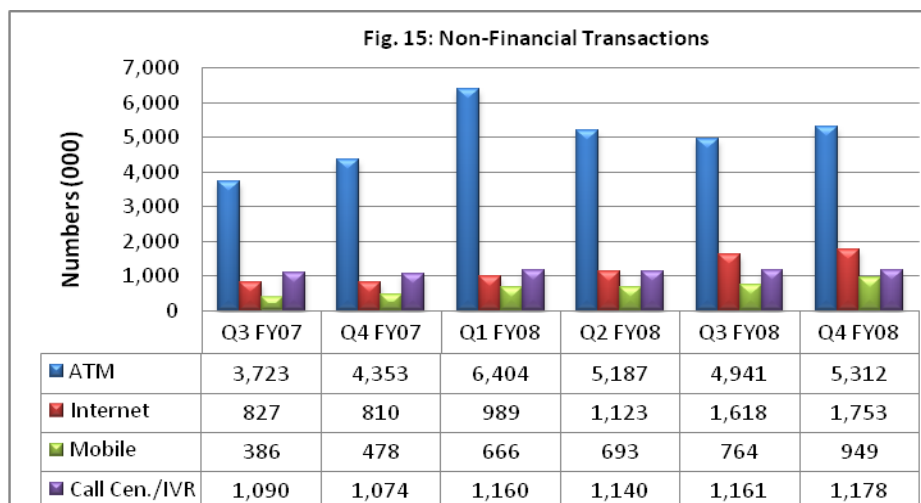
(Rs. In Millions)

| 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% as compared to a decline of 1.3% reported in the previous quarter.

3.11 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. 8.



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.