



# Payment Systems Review

3rdQtr. (Jan — Mar.) FY13

May 29, 2013

**Points of Interest:**

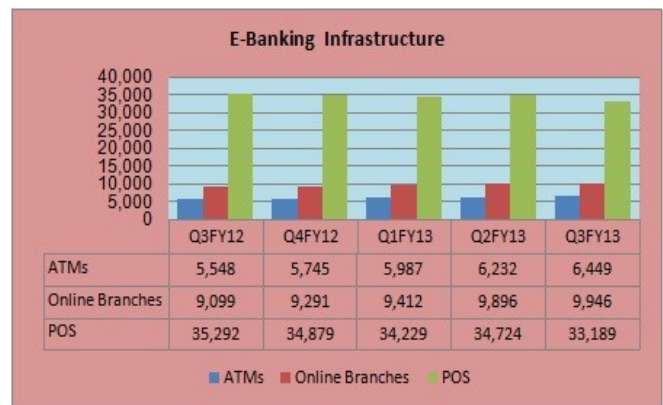
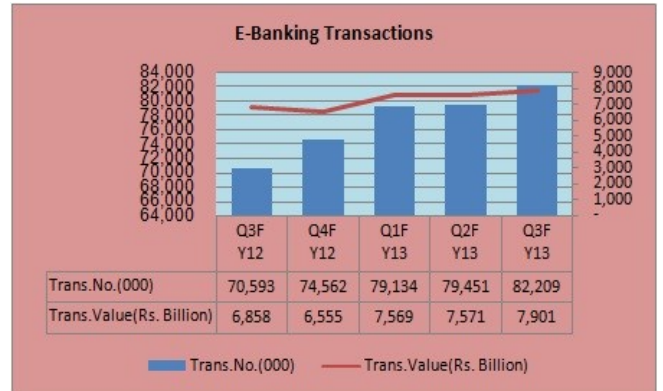
JUSP - The Italian m-POS solution

Latest PCI DSS Guidelines

During the third quarter of FY13 basic infrastructure of payment systems of Pakistan increased considerably. A total of 217 more ATMs were installed by various banks, thus bringing the total number of ATMs installed in the country to 6,449. Altogether, 50 more bank branches were added to the online branch network which makes a total of 9,946 branches that are now offering RTOB services out of 10,535 total bank branches across the country.

Compared with the preceding quarter, number of plastic cards issued to customers increased by 5.06 percent in the third quarter of FY 13, thus making the total number of plastic cards issued to 21.77 million. In comparison with other cards, debit cards have shown the highest percentage growth of about 5.41 percent which has raised the total number of debit cards so far issued to 19.57 million. Moreover, debit cards have the highest share in the total number of plastic cards issued in the country which is 89.94 percent in the current quarter of FY 13. Transactions through debit cards have also increased both in volume and value as compared to the previous quarter which is 6.2 percent and 8.82 percent respectively.

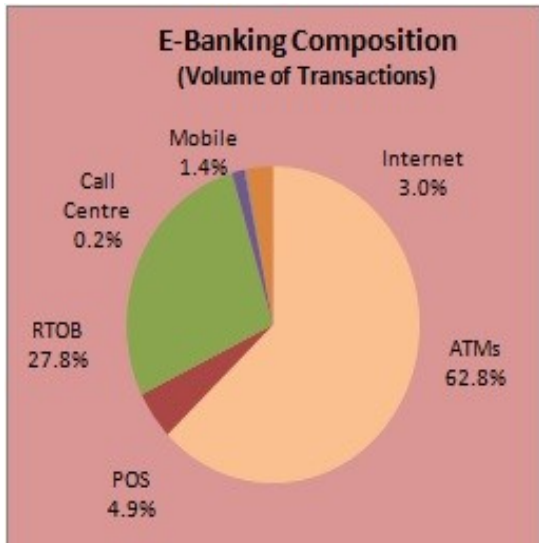
The volume and corresponding value of overall e-banking transactions during this quarter also depicted a growth of 3.47 percent increase in volume which is equal to 82.21 million transactions and an increase of 4.37 percent in value which is equal to Rs. 7.9 trillion. Of all the e-banking transactions, mobile transactions show the highest percentage increase since the previ-



ous quarter of current fiscal year. The transactions increased by 22.84 percent in terms of volume reaching the number of 1.12 million as compared to 0.91 million in the preceding quarter. Similarly, the value of mobile transactions also showed highest percentage increase as compared to the previous quarter of current fiscal year. The value of transactions increased by 30.66 percent reaching Rs. 7.3 billion as compared to Rs. 5.6 billion in the preceding quarter.

In terms of volume of overall e-banking transactions, ATM transactions have a major share of 62.78 percent and an average value per transaction stands at Rs. 10,005. In comparison with the number of transactions reported in the second quarter of the current fiscal year, the overall volume of ATM transactions increased by 6.27 percent and the value increased by 8.73 percent. In the overall e-banking transactions, amount of ATM transactions remained at 6.53 percent during current quarter.

As a result of decrease in SBP money market operations, volume and value of large-value payments through RTGS have reduced to 121,362 transactions and Rs. 39.40 trillion respectively as compared to the previous quarter. This implying a 0.25 percent decrease in volume and 6.48 percent decrease in value of RTGS transactions.



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## E-Banking Growth Trend— Quarterly Comparison

Quarterly E-Banking Trend						
E-Banking Transactions						
	Qtr2 FY13		Qtr3 FY13		Quarterly Growth	
	Volume (000)	Value (Rs. Billion)	Volume (000)	Value (Rs. Billion)	Volume	Value
ATM	48,561.30	474.89	51,606.90	516.34	6.27%	8.73%
RTOB	23,064.54	6,947.71	22,853.04	7,227.86	-0.92%	4.03%
POS	4,547.84	22.06	4,047.35	21.35	-11.00%	-3.23%
Call Center	158.08	2.05	158.25	1.96	0.11%	-4.45%
Internet Banking	2,209.29	118.24	2,426.20	126.30	9.82%	6.82%
Mobile Banking*	909.62	5.62	1,117.37	7.35	22.84%	30.66%
E-Banking	79,450.67	7,570.57	82,209.11	7,901.15	3.47%	4.37%
E-Banking Infrastructure						
	As of December 31, 2012		As of March 31, 2013		Quarterly Growth	
ATMs	6,232		6,449		3.48%	
Online Branches Network	9,896		9,946		0.51%	
POS	34,724		33,189		-4.42%	
Credit Cards (000)	1,271		1,271		-0.03%	
Debit Cards (000)	18,572		19,575		5.41%	
ATM Only Cards (000)	874		920		5.24%	

\*Branchless Banking data is not included

In the retail payment systems, Microfinance Banks data are not included.

Discrepancy may occur due to rounding of data.

### JUSP - The Italian m-POS solution

JUSP (just pay) is an Italian company that has developed the first "Chip and Pin" mobile POS in the world. Founded in November 2011 by Giuseppe Saponaro and Jacopo Vanetti, two young IT expert based in Milan, JUSP has received the first round of financing by an angel team, comprised of Stefano Calderano (CEO) and Paolo Guida (CFO). Currently JUSP has a team of 10 full time employees. JUSP is about to receive an investment by two Italian VC funds to become fully operational and finalize the commercial launch.

JUSP has developed a mobile POS that fits the need of merchants working in mobility, offering a light and cheap solution. JUSP is the first and only device which works through the audio jack and not using Bluetooth communication. This technology allows JUSP to be physically attached to the smartphone or tablet, and this will be a major difference in terms of merchant and customer experience. JUSP meets all the EU and payment circuits' requirements and accepts all debit (including Italian domestic scheme, Pagobancomat) and credit cards and is compatible with any smartphones or tablet on the market (iOs or Android).

JUSP does not have a monthly fee and it has the same commission percentage for any circuits and merchant, being very light and simple to use. JUSP is VISA and MasterCard certified. JUSP is a project totally designed and developed in-house by the JUSP team with some external outsourcers. So, JUSP can also manage in-house all necessary development following the first release.

#### How it works:

- Download the application;
- Insert the debit or credit card into the device connected to the smartphone/tablet;
- Type the amount on the smartphone and the pin on the JUSP keypad. In case the card requires signature, customer will sign on the smartphone or tablet with the finger.

JUSP is able to offer merchants a high value added and innovative service, strengthening customers' loyalty and intimacy, allowing merchants to exploit new revenue opportunities.



## Payment Systems Developments at SBP

In the wake of rising trend in the use of Alternate Delivery Channels (ADC), State Bank of Pakistan finds it necessary to ensure provision of a secure & efficient domestic electronic payment gateway to facilitate electronic payments in Pakistan. It will boost public confidence and further promote e-commerce in the country. To serve the said purpose, State Bank of Pakistan has recently started to work on the development and formulation of guidelines for the establishment of E - Payment Gateway in Pakistan. An E-Payment Gateway will facilitate authorization of local and cross border transactions in such a way that local transactions will be routed, processed and authorized domestically and only cross border transactions will be routed via international card associations. operating in Pakistan such as VISA, MasterCard etc. for authorization.

### News & Updates...

**Wintrust pilots FIS' Cardless Cash Access at ATMs** - US banking and payments technology company FIS has entered an agreement with financial holding company Wintrust. Under the agreement, Wintrust Financial Corporation is set to pilot FIS' Cardless Cash Access solution which is an addition to the FIS Mobile Wallet platform, delivered in partnership with Boston-based mobile payments company Paydiant and US-based automated teller machine (ATM) provider Diebold. The solution enables consumers to withdraw cash from ATMs using their smartphones. The FIS Mobile Wallet with the new Cardless Cash Access solution authenticates a user on their smartphone. Once authenticated, the user scans the QR code provided on the ATM screen and selects the account and amount of the withdrawal directly on their smartphone. The solution delivers an e-receipt to the smartphone app after cash is dispensed from the ATM.

**Hungary to launch state-run mobile payment system** - Hungary is set to launch a national mobile payment system for paying transportation fees throughout the country via mobile phones in the autumn of 2013. According to the source, state-owned company Nemzeti Mobilfizetési is set to establish and run the system. Companies that currently provide mobile payment services are set to operate as resellers in the new state-run system. The system will be introduced first for the payment of parking fees and motorway stickers in September 2013. The system will then be extended to the mobile payment of railway tickets and public transportation between 2014 and 2017. The national mobile payment system does not primarily entail the centralization of mobile-telephone payments, but enables users to pay for public services, mostly transportation services, via mobile phones.

**ISO releases new standard for authenticity of electronic signatures** - International Organization for Standardization (ISO), the world's developer of voluntary International Standards, has released a new standard which will help business and governments guarantee the long-term authenticity of electronic signatures, increasingly used in e-commerce and e-government. The newly introduced standard will also ensure the interoperability of electronic signatures when the documents they authenticate are transferred and processed through different information technology systems. Electronic signatures facilitate the use of electronic contracts and records in commerce and government by ensuring their validity.

**Fifth Third Bank launches mobile check deposit service** - US financial services provider Fifth Third Bank has launched a mobile deposit service for iPhone and Android users. To use the mobile deposit service, customers need to update or download the Fifth Third mobile banking application, select the "Deposit Check" icon, take a photo of the front and back of the cheque, choose the account to deposit the cheque and confirm the amount. A confirmation will display once the item is accepted.

**NCR to enhance video ATM technology via acquisition of software maker uGenius** - Global technology company NCR Corporation has purchased uGenius Technology, a US-based video banking software provider. NCR's acquisition of uGenius is set to support the growth of its APTRA Interactive Teller solution, which allows consumers to conduct remote, assisted-teller transactions over an ATM – speaking with a live teller who has control of the machine. NCR anticipates that it will begin pilots for APTRA Interactive Teller with a number of US banks in HI 2013.

In 2011, NCR and uGenius collaborated to build an ATM that lets consumers talk and bank with a live, remote teller, which in turn allows banks deliver a face-to-face banking experience to their customers.

**PayZang launches Virtual Check** - ACH payment processing company PayZang has released a new payment product, dubbed Virtual Check, to enable merchants to accept payments over the phone or online. Virtual Check uses CheXshield, the new standard in ACH and check verification, to remove fraudulent check and ACH transactions from bad check writers. The newly launched product is aimed at a range of industries including collections, loan modifications, credit repair, multi-level marketing, travel, payday loans, and electronic cigarettes. Virtual Checks can be accepted online through a web portal or an online payments page.

**US Bank launches Mobile Photo Bill Pay service** - US Bank, a division of US financial services provider Bancorp, has launched a mobile photo bill payment service that allows customers to set up bill payments by snapping a picture of their bills with their camera-enabled smartphone or tablet. In December 2012, US Bank entered an agreement with mobile imaging services provider Mitek Systems to provide Mitek's Mobile Photo Bill Pay product to US Bank customers. Mitek's Mobile Photo Bill Pay enables consumers with a smartphone or tablet to take a picture of a bill or remittance coupon; the technology then automatically extracts relevant information from the paper bill and auto-populates the fields required to make a mobile payment. The consumer then schedules the payment and clicks "pay". Consumers can add a new payee to their online bill pay, pay one-time or non-recurring bills and set up recurring bills and payments.

## Latest PCI DSS Guidelines

The PCI Security Standards Council is an open global forum that is responsible for the development, management, education, and awareness of the PCI Data Security Standard (PCI DSS) and other standards that increase payment data security. Founded in 2006 by the major payment card brands American Express, Discover Financial Services, JCB International, MasterCard Worldwide and Visa Inc., the Council has over 600 Participating Organizations representing merchants, banks, processors and vendors worldwide.

As with all PCI Council information supplements and guidance documents, these guidelines will not supersede or replace any PCI DSS requirements. Following are the four independent guidelines which were issued during January and February FY13:

### 1. PCI DSS ATM Security Guidelines

On January 30, 2013 Payment Card Industry Security Standards Council PCI SSC an open and global forum for the development of payment card security standards published best practices for addressing ATM Security. The ATM Security Guidelines Information Supplement was developed with feedback from the PCI community and provides guidance to ATM manufacturers on security steps they can implement in the development of ATMs to help prevent card data compromise at ATMs. PIN and account data present in ATMs has become a growing target for criminals who use this stolen information to produce counterfeit cards for fraudulent transactions, primarily ATM cash withdrawals. In response to this growing security concern, the PCI Council worked in conjunction with a number of other industry groups to develop compromise-prevention best practices that stakeholders can leverage in their ATM security efforts. ATM manufacturers, hardware and software integrators, and deployers of ATMs can use this guidance to aid in the secure development, deployment and maintenance of ATMs. The guidance document provides an introduction to ATM security and outlines best practices around the following key areas and objectives:

- a) **Integration of hardware components** - to avert magnetic-stripe and other account data compromise and PIN stealing.
- b) **Security of basic software** - to avert magnetic-stripe skimming and PIN stealing.
- c) **Device management/operation** - to ensure adequate management of ATM during manufacturing, ATM in storage of deployed ATM estates and ATM's individual security configuration.
- d) **ATM application management** - to address security aspects of the ATM application.

### 2. PCI DSS E-commerce Security Guidelines

On January 31, 2013, the PCI SSC published the PCI DSS E-commerce Guidelines Information Supplement, a product of the E-commerce Security Special Interest Group (SIG). Businesses selling goods and services over the internet can use this resource as a guide for choosing e-commerce technologies and third-party service providers that will help them secure customer payment data and support PCI DSS compliance efforts. Merchants who use or are considering use of e-commerce technologies in their cardholder data environment, and any third-party service providers that provide e-commerce services, e-commerce products, or hosting/cloud services for merchants can benefit from this guidance. This document may also be of value for assessors reviewing e-commerce environments as part of a PCI DSS assessment. The PCI DSS E-commerce Guidelines Information Supplement provides an introduction to e-commerce security and guidance around the following primary areas and objectives:

- a) **E-commerce Overview** – provides merchants and third parties with explanation of typical e-commerce components and common implementations and outlines high-level PCI DSS scoping guidance to be considered for each.
- b) **Common Vulnerabilities in E-commerce Environments** – educates merchants on vulnerabilities often found in web applications (such as e-commerce shopping carts) so they can emphasize security when developing or choosing e-commerce software and services.
- c) **Recommendations** - provides merchants with best practices to secure their e-commerce environments, as well as list of recommended industry and PCI SSC resources to leverage in e-commerce security efforts.



### 3. PCI DSS Cloud Computing Guidelines

On February 07, 2013, the PCI SSC published the PCI DSS Cloud Computing Guidelines Information Supplement, a product of the Cloud Special Interest Group (SIG). Businesses deploying cloud technology can use this resource as a guide for choosing solutions and third-party cloud providers that will help them secure their customer payment data and support PCI DSS compliance. PCI participating organizations selected cloud computing as a key area to address via the SIG process. More than 100 global organizations representing banks, merchants, security assessors and technology vendors collaborated on this guidance designed to help companies identify and address the security challenges for different cloud architectures and models, and understand their PCI DSS responsibilities when implementing these solutions. Merchants who use or are considering use of cloud technologies in their cardholder data environment and any third-party service providers that provide cloud services or cloud products for merchants can benefit from this guidance. This document may also be of value for assessors reviewing cloud environments as part of a PCI DSS assessment. The PCI DSS Cloud Computing Guidelines Information Supplement builds on the work of the 2011 Virtualization SIG, while leveraging other industry standards to provide guidance around the following primary areas and objectives:

- a) **Cloud Overview** – provides explanation of common deployment and service models for cloud environments, including how implementations may vary within the different types.
- b) **Cloud Provider/Cloud Customer Relationships** – outlines different roles and responsibilities across the different cloud models and guidance on how to determine and document these responsibilities.
- c) **PCI DSS Considerations** – provides guidance and examples to help determine responsibilities for individual PCI DSS requirements, and includes segmentation and scoping considerations.
- d) **PCI DSS Compliance Challenges** - describes some of the challenges associated with validating PCI DSS compliance in a cloud environment.
- e) **Additional Security Considerations** – explores a number of business and technical security considerations for the use of cloud technologies.

### 4. PCI DSS Mobile Payment Acceptance Security Guidelines

On February 14, 2013, the PCI SSC published the PCI Mobile Payment Acceptance Security Guidelines for Merchants as End-Users. The guidance educates merchants on the factors and risks that need to be addressed in order to protect card data when using mobile devices such as smart phones and tablets to accept payments. As these devices are not solely used as point of sale tools but also to carry out other functions, they introduce new security risks. The new guidance for merchants focuses on these scenarios and specifically the payment software that operates on these devices. The PCI Mobile Payment Acceptance Security Guidelines for Merchants as End-Users leverages industry best practices to educate merchants on what is needed to isolate and prevent card data from exposure. By design, almost any mobile application could access account data stored in or passing through the mobile device. By providing a high level introduction and overview of the mobile payments space and the security risks of mobile devices, the document outlines the unique, complex and evolving mobile environment that underscores the need for all parties in the payment chain to work together to ensure mobile acceptance solutions are deployed securely. The guidance is organized around the following key areas and objectives:

- a) **Objectives and Guidance for the Security of a Payment Transaction** - addresses the three main risks associated with mobile payment transactions: account data entering the device, account data residing in the device, and account data leaving the device.
- b) **Guidelines for Securing the Mobile Device** – provides recommended measures for merchants regarding the physical and logical security of mobile devices used for payment acceptance.
- c) **Guidelines for Securing the Payment Acceptance Solution** – provides guidance for the different components of the payment acceptance solution; including the hardware, software, the use of the payment acceptance solution, and the relationship with the customer.

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