



ELECTRONIC PAYMENT SYSTEMS IN SRI LANKA

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In a modern economy a country's payment system is an important aspect of its infrastructure. Every consumer makes multiple payments, multiple times a day. Therefore value is transferred between players in the economy every moment of the day.

It is a global trend that developing countries are adopting electronic / automated payment systems to conduct business with ease within the country as well as outside the country.

Electronic payment system means making payment over an electronic network such as internet.

It is the responsibility of the Government to enact legalization to provide directions, guidelines and regulations required by the Central Bank to supervise and monitor electronic payment systems to ensure that the payment systems are efficient, reliable, secure and cost effective from the perspective of the consumers.

Cash remains the most preferred payment mode in executing retail payments in Sri Lanka and account for more than 90 per cent of all retail payments.

Non-cash payments effected through electronic payment system

- The Real Time gross settlement (RTGS) system and the Cheque Imaging & Truncation (CIT) system account for 99 per cent of total value of non-cash payments of the country.
- The Sri Lanka Interbank Payment System (SLIPS), Card based payment mechanism, drafts, Postal instruments and other electronic means: payment such as phone/ mobile / telebanking were the other payment mechanisms used to effect non- cash payments

Sri Lanka Interbank Payment System (SLIPS)

SLIPS was introduced by the Central Bank of Sri Lanka in 1993 as an offline interbank payment system. In 2002, the CBSL divested the clearing operation of cheques and SLIPS to Lanka Clear (Pvt) Ltd. (LCPL).



The objective of the SLIPS is to establish a uniform and common electronic retail payment system and to promote payment safety and efficiency while promoting cooperation among all SLIPS participants in the evolution of the country's retail payment system. SLIPS was upgraded to an on-line interbank payment system by LCPL in September, 2010 to facilitate settlement of transactions on the same business day.

The non-cash payments effected through SLIPS are increasing continuously over the years and show an increase of 7.4 percent in volume during the last quarter of this year. This increase is attributed to upgrade of the SLIP stem on T+ 0 basis and usage of system for salary payment, utility bill payment and stock exchange related payments, especially initial public offering (IPO) refunds. The average daily volume and value of transactions through SLIPS were 45,911 and Rs. 1.297 million respectively as at end of 1st Quarter of 2011 as per Central Bank Payment Bulletin.

Real Time Gross Settlement System (RTGS) and Lanka Secure

The Central Bank operates Lanka Settle, the systemically important high value payment and securities settlement system. The Lanka Settle system has 2 components i.e. the RTGS system (which process large value and time critical payments) and the Lanka Secure system provides the most secured securities settlement mechanism based on delivery versus payment for scrip less securities transactions. Participants of Lanka Settle system are Central Bank, other licensed commercial banks in the country, primary dealers, the EPF and the central depository system (CDS) of the Colombo Stock Exchange. Accordingly transactions are settled in the system if the participant who sells securities has sufficient eligible securities account in Lank Settle and the buying participant has sufficient funds in his settlement account in the RTGS to pay for transaction.

The daily average volume of transactions settled through RTGS system during the first quarter 2011 has increased by 18.3% to 1076 transactions while the average value of transactions per day has moved by 135.3 per cent to Rs,307 billion indicating the popularity and high acceptance of the RTGS system by the participants.

Participant	2010	2011	% change	
			10/09	11/10
Total no .of transactions	53,639	63,466	-15.5	18.3
Total value of transactions (Rs. bn.)	7,696	18,108	-57.5	135.3
Average no. of transactions per day	909	1,076	-15.5	18.3
Average value of transactions per day (Rs. bn.)	130	307	-57.5	13

The total value of the secondary market transactions of government securities in the Lanka Secure System during the 1st Quarter 2011 amounts to Rs. 17,201 billion registering a significant growth of 207.1 per cent over the same quarter in 2010.



Payment cards

Sampath Bank provided the first experience of Electronic payment system to Sri Lankans by introducing Automated Teller Machine (ATMs) in 1986, whereby Sampath Bank proprietary ATM cardholders were able to withdraw cash from ATMs at any time of the day without visiting the bank by using cards at ATM machines.

With the introduction of EFTPOS in 1994, payment cardholders were able to use their cards at POS machines installed at the merchant outlets, which enable the merchant to obtain authorizations electronically doing away with the manual authorization process which was cumbersome for the merchant and time consuming for the cardholders.

All the major card brands are in circulation in the country i.e. Visa, Master and Amex and almost all the major global payment card brands are also accepted in the country through the Electronic data capture machine / point of sales machines, which are connected to all major global payment card brand system through the respective networks of these organizations for the purpose of authorization, clearing and settlement processes.

The payment card volume growth in the country, which was dipped during global economic down turn shows increase specially due to demand of credit cards by bank customers in North and East provinces with the dawn of peace in these areas and card volumes have reached 80,000 as at June 2011, which augurs well for the credit card issuers.

Debit cards

The debit cards growth and transaction volumes are increasing consistently over the years and as at the end of March 2011 7.4 million cards are in circulation in the country, indicating a significant growth compared to 21 million population in the country and augurs well for the popularization of electronic payment system in Sri Lanka.

It is also noteworthy that Global Payment organizations as well as Debit card issuers are launching promotional campaigns and introducing new loyalty program to attract debit cardholders in recent times and this trend has pushed most of registered finance companies also to join hands with local card issuers to issue debit cards, may be mainly to retain their customers.

The infrastructure necessary to develop electronic payment system has been successfully set up in Sri Lanka with the cooperation of all the banks and financial institutions engaged in card acquiring business in the country under the guidance and assistance of the Central Bank.



Automated Teller Machines (ATMs)

The total number of ATM terminals as at end of first quarter 2011 stood at 2281 recording an increase of 13.1 per cent, when compared with the number of ATM terminals as at end of 1st quarter 2010. Installation of new ATMs in the Northern and Eastern provinces by banks might have largely contributed to this increase.

The total volume and value of transactions effected through ATMs also continued to rise during the period under review registering a 22.9 per cent and 36.4 per cent increase over the corresponding quarter in 2010.

ATM Terminals - First Quarter				
	2010	2011(a)	% change	
			10/09	11/10
ATMs				
Total number of machines (End of period)	2,016	2,281	14.6	13.1
Total volume of financial transactions (During the period in '000)	22,839	28,066	10.1	22.9
Total value of transactions (During the period in Rs. mn.)	135,664	185,107	18.5	36.4

Electronic Fund Transfer at Point of Sale (EFTPOS)

EFT POS / EDC terminals were introduced in Sri Lanka in 1994. The merchants accepting payment cards are provided with EFTPOSs by the respective acquirers based on the card acquiring business volumes and others are provided with imprinters. Such merchants are compelled to take authorization from the acquiring banks for each and every transaction, since circulation of card recovery bulletins have been discontinued as per a decision of the payment organisations.

All the EFTPOS terminals are EMV compliant as mandated by global payment organizations operating in the country and the Central Bank has also requested all the acquirers to implement line encryption solution to prevent payment skimming of card data by wire tapping before the end of this year.

The total number of EFTPOS terminals which provide infrastructure for credit and debit cards at merchant outlets increased by 12.6 per cent to 21501 during the first quarter of 2011 in comparison to the number of terminals as at end of first quarter 2010. The total EFTPOS transaction volume and value also increased during that quarter by 24.5 per cent and 23.9 per cent respectively, when compared with same quarter in 2010.



EFTPOS Terminals - First Quarter				
	% change			
	2010	2011(a)	09/08	10/09
Total number of machines (End of period)	19,099	21,501	11.2	12.6
Total volume of financial transactions (During the period in '000)	4,603	5,733	-1.9	24.5
Total value of transactions (During the period in Rs. mn.)	22,596	27,988	13.9	23.9
(a) Provisional				

Source: Commercial Banks

Phone/Mobile/Tele Banking /Internet Banking

Majority of the commercial banks in the country are in the process of introducing new innovative technological based payment products in keeping with global trends in payment card industry to provide cost effective, secure, safe and reliable products that could be used anywhere, any time with no hassle to the cardholders.

A number of mobile banking products have been introduced in the country in association with 3 leading mobile operators in the country.

However, the comparison of transaction volumes and value of transactions given below indicate that mobile transaction volumes have dropped significantly and only internet transactions have shown an increase.

Payment Instructions Handled Through Electronic Systems- First Quarter			
	2010	2011(a)	% change
	11/10		
Tele-banking / Mobile Banking			
No. of financial transactions	67,522	48,187	-28.6
Value of Transactions (Rs.mn)	1,245	1,274	2.3
Internet Banking			
No. of financial transactions	1,051,306	1,202,315	14.4
Value of Transactions (Rs.mn)	61,623	64,211	4.2
(a) Provisional			

Source: Commercial Banks



As such, it is an obligation of Banks and mobile operators to review and revamp the existing mobile banking products and re-launch these products, since these products have become very popular in the countries where mobile banking has fulfilled the function of providing easy access to banking facilities for the un-bank population of these countries. The World Bank is also supporting the mobile payment programs to enable developing countries to provide banking facilities to un-bank customers with a view to alleviate poverty.

The legal and regulatory environment in Sri Lanka is conducive to the growth of electronic payment systems.

In this regard, Parliament of Sri Lanka has enacted the **Payment and Settlement Act, No 28 of 2005**, which was certified on 20th September 2005.

The objective of the above Act was -

- a. To provide for regulation, supervision and monitoring of payments, clearing and settlement system
- b. To provide for the disposition of securities in securities accounts maintained at the Central Bank
- c. To provide for the regulation, supervision and monitoring of providers of money services and
- d. To facilitate the electronic presentments of cheques.

The Act also states that the Central Bank be the authority for the preparation of a plan for a national payment system.

Electronic Transactions Act, No. 19 of 2006 which encourages the use of reliable form of electronic commerce also strengthens growth of electronic systems in the country. The banks that intend to provide SMS based payment solutions are safeguarded by the Act.

The objective of this Act is as follows -

- a. To facilitate domestic and international electronic commerce by eliminating legal barriers and establishing legal certainty.
- b. To encourage the use of reliable forms of electronic commerce.
- c. To facilitate electronic filing of documents with government and to promote efficient delivery of government services by means of reliable forms of electronic communication and
- d. To promote public confidence in the authenticity, integrity and reliability of data message, electronic documents, electronic records or other communications.



The Government of Sri Lanka having created necessary legal environment for popularizing electronic payment system also went few steps ahead of all the other countries in South – East Asia by enacting special legislation for punishing perpetrators of frauds using these payment systems.

The legislation enacted by the Parliament of Sri Lanka is cited as the **Payment Devices Frauds Act, No. 30 of 2006** which was certified on 12th September 2006.

The main objectives of this Act are -

- a. To create offences connected with the possession or use of unauthorized payment devices
- b. To protect persons lawfully issuing and using such payment devices
- c. To make provision for investigation, prosecution and punishment of offenders.

The highlights of this Act are as follows

- The Act has listed 19 offences, which are punishable. The offences include highly sophisticated form of payment card frauds using new technology such as skimming, wire tapping, which are considered as biggest threats faced by the payment card industry.
- The persons found guilty, after trial in High Courts in Colombo could be jailed for a minimum period of 3 years up to a maximum of 10 years or fine not exceeding Rs.500,000.00 or both
- Appointment of a Panel of Experts to assist police in payment card fraud investigations.

The **Computer Crimes Act, No. 24 of 2007** which was enacted by Parliament and was certified on 09th July 2007 also supplements the above Act in mitigating payment card frauds related to electronic payment systems.

The objectives of this Act are -

- a. To provide for the identification of computer crime, and
- b. To provide the procedure for investigation and prevention of such crimes.

The guidelines and directions issued by Central Bank in pursuance of the Payment and Settlement Act, No.5 of 2005 has laid down the operational procedures, system integrity and safety required for introducing an electronic payment system in the country.



Regulations made by the President in terms of the Payment and Settlement Act, No.28 of 2005, is cited as the ***Service Providers of Payment Card Regulations No.1 of 2009***.

The main highlights of these regulations are -

- The appointment of the Central Bank as the supervisory authority responsible for the regulation and monitoring of service providers of payment cards.
- No person shall engage in or function or cause another person to be engaged in or function as a service provider of payment cards except under the authority and in accordance with the terms and conditions of a licence issued by the authority.
- The following persons shall be eligible to apply for a licence to be engaged in or to function as a service provider of payment cards.
 - i. any licensed commercial bank
 - ii. any licensed specialized bank
 - iii. any registered finance company
 - iv. any public company having an unimpaired capital of at least rupees seventy five (75) million.

Having considered the recent developments in the field of payment system interest of banks and non-banks service provider in electronic payment mechanism and requirement of providing a secure and safe environment for innovative payment instrument with diversified economic activities, The Central Bank of Sri Lanka in order to regularize electronic payment methods such as policy making licensing monitoring and supervision with the collaboration of others who are engaged in the payment and settlement related activities took the initiative to issue Service Providers of Payment Card Regulation No.1 of 2009, which covers almost all the electronic fund transfer mechanisms.

The Central Bank issued ***Credit Card Guidelines No 01/2010 on 31 July 2009*** in terms of the Service Providers of Payment Card Regulations No.1 of 2009.

These guidelines cover the following areas of credit cards business-

- Marketing of credit cards
- Issue of credit cards
- Interest and other charges
- Billing process
- Collection /recovery
- Confidentiality and protection of customer rights
- Dispute resolution
- Outsourcing of marketing / recovery function and other operations



- Right to impose non-compliance
- Legal provisions
- Business continuity, internal control and compliance
- General conditions

The rapid expansion of mobile phone networks and users in the country over the last few years prompted, commercial banks, other financial institutions and mobile operators to seek permission from Central Bank to introduce innovative mobile based payment products resulting in the issuance of mobile payment guidelines to ensure security, safety and reliability of these products.

National Payment Council established by CBSL which represents all stakeholders of payment industry also identified and recommended the necessity of issuing these guidelines with the objective of promoting safety and effectiveness of phone based payment services and thereby enhancing the confidence of such services and safeguarding the stability of the national payment system.

The salient features of these guidelines are two separate sets of guidelines for banks and non-bank service providers.

1. Mobile Payments Guidelines No 1 of 2011 for the banks lead model
2. Mobile Payment Guidelines No 2 of 2011 for custodian account based mobile payment services

Under the bank-led mobile payment service, a licensed commercial bank can operate customer account based mobile payment system, which can be offered only to their customers (Account Holders), Under this system banks are allowed to offer three type of services -

- i. Basic type
- ii. Standard type
- iii. Extended type

Licensed Commercial Banks (LCBs) are allowed to operate the mobile payment through its agents. It allows account holder to deposit/ withdraw cash through agents appointed by the respective banks. Licensed service providers operating custodian based mobile payment system are allowed to convert e-money into physical money for e-money holders(cash Out) on their request, directly or through appointed merchants. Based on the transaction made by the customers and merchants, it is mandatory that e-money accounts of them are updated on real time basis. Custodian account based mobile payment system should have custodian accounts with licensed commercial bank. And should maintain the cumulative sum collected from all e-money holders accounts in the custodian account at all times.



Both of these guidelines provide the terms and conditions to be followed by service providers with regard to registration of customers, technology and information security standards, customer protection, grievances and redress mechanism along with the regulation and supervisory function. The CBSL has given much concern relating to customer protection in preparing guidelines for non-bank service providers considering the risk involved in such payments.

Under the custodian account based mobile payment model extensive responsibilities have been laid down on the custodian bank in order to mitigate the risks associated with such system.

In addition as a measure to protect both the service providers and users of the system following actions are not allowed under the mobile payment services;

- a. Grant any form of credit to the e-money account holders.
- b. Pay interest or profit on the e-money balances.
- c. Issue e-money at any discount
- d. Any other facility that exceeds the monetary value of the deposit by e-money holders.

The above guideline also promotes interoperability, so that fund transfer among mobile payment holders could be effected from anywhere anytime from an account in one bank to another account in same or different bank irrespective of the mobile network operator.

From the observation given above, it is very evident that that the Government of Sri Lanka and the Central Bank of Sri Lanka have created a very conducive environment for the providers of electronic payment systems. The Banks and financial institutions should make use of this opportunity to promote these payment systems by educating masses on the benefits of electronic payment system and instilling confidence in these systems.

* Please note that payment card statistics quoted in the above article have been extracted from the Payment Card Bulletin issued by the Central Bank as at the end of the 1st quarter 2011.