

## Chapter 2

### **Introduction to the similar solutions and compare with the proposed system.**

Chapter two contains the similar solutions done by others and these solutions have been compared with the automated mobile money transfer system. Also this chapter will discuss some adaptation issues of the users of the system.

#### **2.1 Other approaches to solve the similar problem.**

##### **2.1.1 E-Banking systems**

Most of the countries including Sri Lanka are widely using e-banking solutions like utility bill payments, credit card payments, fund transferring etc. Eg:- Sampath bank uses the e-wallet system to do the banking and credit card transactions.

##### **2.1.2 SMS banking solutions**

It is widely used with this facility even in Sri Lanka. Bill payments (utility/ credit card), prepaid top up, money transferring to another accounts, sending alert to the customers , view account balance, fund transfer etc.

Information for Development Program (*infoDev*) has partnered with the International Finance Corporation (IFC) and the GSM Association to conduct a case study of two promising examples of m-Commerce in the Philippines, namely mobile financial services provided by SMART Communications and GLOBE Telecom.

infoDev[3] (Report, 2006) MicroPayment Ref Sect. 2

Based on the findings of this report, it is clear that it is not only technically feasible and profitable to deploy financial services over mobile networks, but that there is significant and growing demand. In fact, m-Commerce may address a major service gap in developing countries that is critical to their social and economic development. In addition to providing many answers about this new service application, the report raises many interesting questions about the users and how they are benefiting from this service.

Today in the Philippines, the emphasis in the mobile markets is on low transaction costs (text messaging at typically US2¢) and minimal re-charge values (US60¢) coupled with ease of use and a range of transactional applications aimed at addressing the population's needs. Both GLOBE's G-Cash and SMART's SMART Money are being actively promoted and from the information supplied, both are experiencing a high uptake of the services.

### 2.1.3 SMART Money in Philippines

SMART Money is the product offered by SMART Communications. It has a related product, SMART Mobile Banking that allows customers to transfer funds from their bank accounts to their SMART mobile service account including prepaid recharging. These two products can co-exist with some customers.

SMART Money has gone through several iterations to the present time and below mentioned list of services providing by the Philippines mobile operators.

- Transfers of airtime credit from one user to another (SMART Pasa Load)
- Direct credit from employer payroll
- Bill payment
- Inward international remittances from Overseas Filipino Workers (SMART Padala).
- Prepaid topup.

[9] Case studies from the Philippines Michael Trucano, *infoDevICT*.

#### **2.1.4 Fundamo in South Africa**

Fundamo is a South African based company specializing in the m-Commerce sector. It is not an operator of such services but in co-operation with other companies, it provides m-Commerce solutions.

- Eg:- Mobile banking.
- P2P payments
- Prepaid airtime purchases.
- Prepaid electricity purchases.
- Bill payments
- Card mobile enablement.
- Mobile authentication.
- Airtime vending
- Bill collecting
- Mini ATM.
- COD(delivery payments).[5]

#### **2.1.5 Safaricom in Kenya**

From the information supplied by Safaricom, the service is currently in embryonic form but is expected to provide features largely in line with those offered in the other markets studied. There are providing a service called M-PESA .the M-PESA service requires a simple registration process to set-up a customer's new account into which they can upload (deposit) and download (withdraw) cash one of 450 Safaricom's agents in Kenya. Making a deposit is similar to topping up their airtime pre-pay balance: the account identification is the mobile phone number and the customer goes to the same place that they would go to buy airtime. There the similarity ends; the M-PESA account is entirely separate to the pre-pay airtime credit. Once registered, the customer can send funds to any other phone number, on any network. The receiver gets a text message that can be taken to a re-seller agent and 'cashed in', enabling person-to-person money transfer instantly over large

distances. A customer can also use their M-PESA account balance to buy goods and services (including airtime credit for any other Safaricom pre-pay phone). It comes with a full transaction tracking and reporting system, customer care support and anti money laundering measures, and is being developed to allow international use for remittances, allowing Kenyans overseas to send money home quickly and much more effectively than traditional methods. [6].

### **2.1.6 Celpay in Southern Africa.**

Celpay, the next in a line of 'cell phone wallet services,' allows registered customers to use their cell phones for merchant transactions, monthly bill payments, and fund transfer between phones. Customers registering for Celpay receive a new secure SIM card, adding a menu to their cell phones that facilitates the payments and providing access to their Celpay accounts. Money can be added to Celpay accounts via transfers from a bank account, or by depositing cash or a check at a participating Celpay partner bank. [7]

### **2.1.7 The GLOBE G-Cash product**

This is well thought out and appears to address the issues that are most likely to be of concern to the average customer in the Philippines. While its approach is significantly different to that of SMART, it is nevertheless a viable alternative that would have application in other markets. Its key features include:

- Cash-less and card-less micropayments over a mobile phone.
- The country's first and only mobile wallet service.
- Purchase goods and services.
- Micro-finance and micro-payment applications.
- Tax payments and bill payments.
- Send and receive money person to person or P2P. Domestic and international remittances. [8].

## 2.2 Comparison of different services

SMART Money in Philippines	Fundamo in South Africa	Safaricom in Kenya(M-Pesa)	Celpay	G-Cash product	Automated mobile money transfer system
Direct credit from employer payroll	Mobile banking	Cash deposited first. when need money transfer, use this cash.	Monthly bill payments, fund transferring	Peer to peer money transfer	Peer to peer money transfer
Bill payment	Peer to peer transfer			Micro Payments and financial services	Cashless purchasing
Prepaid topup	Bill collecting			Tax payment and bill payments.	No self registration
	Mini ATM				

Table2.1 – Comparison of different services.

## 2.3 Strong and weak point comparing with others' products

It's possible to compare the automated mobile money transfer system with above mentioned similar kinds of products and services.

### 2.3.1 Strong Points

- It's not required to deposit cash or cheque before doing a transaction. If customer got enough money in his bank account, transaction is automatically happened. Otherwise an error message will be displayed.
- No need to create any other accounts other than the bank account. In some of above mentioned other products and services customer needs to deposit money in merchant companies. So it is required to create a new account in the merchant

company. Then customer has to maintain some other accounts to deposit money other than his bank account.

- Most of the Sri Lankan banks have got their branches all over the country. So mobile money transfer could be done more efficiently and effectively.
- Customers will trust the mobile money transfer system, more than other systems due to the involvement of banks

### **2.3.2 Weak Points**

- Customer has to go to the bank and have to register manually.
- Customer has to have a mobile phone and a valid connection

### **2.4 Customer adoption issues**

- Trust (security encryption)
- Convenience/ simplicity
- Existence of other mobile-enabled services
- Mobile phone culture
- Fragmentation/ lack of interoperability
- Non-viable business models
- Regulatory issues

### **2.5 Summary**

In this chapter it has been described the some of other similar work. It contains sub sections like other's approach to solve the problem, comparison of other's products, and finally strength and drawback comparing with other services. Also it has discussed the customer adoption issues.

Next chapter will describe about the technologies used to develop this system and why those technologies have chosen.