

Mobile Banking in Bangladesh



The Report

On

**“Mobile Banking in Bangladesh” A New
Device to Explore Banking**

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From the bottom of your heart,

s.s.Rahman.

.....

Sheikh Shamcur Rahman

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Executive Summery

Mobile Banking is a Banking process without bank branch which provides financial service to UN banked community effectively and at affordable cost. To provide banking and financial services through Mobile technology devices e mobile phone called Mobile Banking.

The increasing convergence of mobile technologies and the Internet is rapidly giving way to mobile data services among various MDSs, m-banking can add more value than other services M-banking is defined as provision and availability of banking services with the help of mobile telecommunication devices such as mobile phones Typical functions include viewing account balances, transferring funds from one account to another, receiving alerts and paying bills. However, m-banking cannot support all banking functions. For instance, cash can only be withdrawn at physical branches or at automated teller machines (ATMs). M-Banking is generally viewed as a channel that is more flexible and ubiquitous than the existing banking channels. It has the potential to transform banking and telecom sectors. It increases revenue for mobile service providers and saves cost for banks by offering self-services to users. Further, it provides exciting possibilities to increase remittance flows through banks, and include the poor and un-banked to the banking net. Interest about m-banking is growing among practitioners and researchers alike. In an increasingly competitive banking market, managers are interested in improving understanding of user acceptance of technology-mediated m-banking it is a quite popular method of banking that fits in well with a busy, technologically oriented lifestyle.

Mobile banking (also known as M-Banking, m-banking, SMS Banking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered over SMS. With the introduction of the first primitive smart phones with WAP support enabling the use of the mobile web in 1999, the first European banks started to offer mobile banking on this platform to their customers.

Objective of the report

This report focuses on the role of Mobile Banking and its potential to provide basic banking services to the vast majority of unbanked people in the world. The rationale for M-banking as an appropriate tool for transforming banking stems from two observations; traditional retail banks do not deliver services tailored to fit the currently unbanked which has led to a gap in the market. Further, the fast diffusion of mobile telecom networks has enabled M-banking service operators to draw on the geographic coverage of mobile networks and diverse needs of the client base. Hence, the common assumption behind M-Banking ventures is the potential of mobile phones as a channel for undertaking financial transactions. The objective of the study is to take a fresh look at the current M-Banking experience in a selected number of countries using primary and secondary data from the existing pool of literature.

Methodology

The study has been done mainly based on primary and secondary sources of data or information. **The first** is an exploratory research based on secondary data obtained through the Net, books and related journals. **Secondly**, survey questionnaire was administered to empirically assess the level of adoption of m-banking in Bangladesh including different publications: (i) Bangladesh Institution of Bank Management (ii) Bank for International Standard Working (iii) Papers International and local Publications (iv) Different seminar papers (v) Information from Internet

Data collection procedure

Primary data sources: Primary data has been collected from Dhaka based some selected banks e.g. Dutch Bangla Bank Ltd., BRAC Bank Ltd... These banks are considered as the private commercial banks and foreign banks respectively. Primary data collections are done by the interviewing method with proper questionnaire.

Secondary data sources: Secondary data has been collected from different publication material and web site as well as the books and material from different libraries, the hand note of the various seminars.

Literature Review

El-Sherbini et al. (2007)

Investigated the customers' perspectives of mobile banking, their perceived importance for it, usage patterns and problems rising on its utilization. The paper discussed the strategic implications of the research findings. Empirical data were gathered from bank customers in Kuwait to achieve the research objectives. All bank customers in Kuwait were considered as population of research interest. The results showed the perceived importance of internet banking services by customers, current and potential use of MB services in Kuwait and problems perceived by bank customers in using MB. The researchers' main hypothesis tested that top five services considered relative important in Kuwait banks were "Review account balance", "Obtain detailed transactions histories, "Open accounts", Pay bills" and Transfer funds between own accounts".

Sathye (1999)

Analyzed the factors affecting the adoption of Mobile banking by Australian consumers. His sample was from individual residents and business firms in Australia. The study focused on the capital cities where use of mobile internet and population was likely to be high. White and yellow pages were used as the frame of reference for personal and business customers, respectively. The findings suggest that security concerns and lack of awareness about mobile banking and its benefits stand out as being the obstacles to the adoption of mobile banking in Australia. He also suggests some of the ways to address these impediments. Further, he suggests that delivery of financial services over the Internet should be a part of overall customer service and distribution strategy. These measures could help in rapid migration of customers to mobile Internet banking, resulting in considerable savings in operating costs for banks.

Rotchanakitumanuai and Speece (2003)

Investigated why corporate customers do not accept mobile banking, which can assist banks to implement this self-service technology more efficiently. Many Thai banks are currently implementing mobile banking. Banks that offer service via this channel claim that it reduces costs and makes them more competitive. However, many corporate customers are not highly enthusiastic about mobile banking. They used in-depth qualitative interviews methodology for collecting their data. The interviews with Thai firms suggested that security of the Internet is a major factor inhibiting wider adoption. Those already using Internet banking seem to have more confidence that the system is reliable, whereas non-users are much more service conscious, and do not trust financial transactions made via Internet channels. Non-mobile banking users tend to have more negative management attitudes toward adoption and are more likely to claim lack of resources. Legal support is also a major barrier to Internet banking adoption for corporate customers.

Introduction

Mobile Banking:

Mobile banking (also known as M-Banking, m-banking, SMS Banking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered over SMS. With the introduction of the first primitive smart phones with WAP support enabling the use of the mobile web in 1999, the first European banks started to offer mobile banking on this platform to their customers.

Mobile banking has until recently (2010) most often been performed via SMS or the Mobile Web. Apple's initial success with i-Phone and the rapid growth of phones based on Google's Android (operating system) have led to increasing use of special client Programs, called apps, downloaded to the mobile device.

A mobile banking conceptual model:

In one academic model, mobile banking is defined as:

Mobile Banking refers to provision and a ailment of banking and financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information.

According to this model Mobile Banking can be said to consist of three inter-related concepts:

- Mobile Accounting
- Mobile Brokerage
- Mobile Financial Information Services

Most services in the categories designated Accounting and Brokerage are transaction- based. The non-transaction-based services of an informational nature are however essential for conducting

transactions for instance, balance inquiries might be needed before committing a money remittance. The accounting and brokerage services are therefore offered invariably in combination with information services. Information services, on the other hand, may be offered as an independent module.

Mobile phone banking may also be used to help in business given situations:

Trends in mobile banking:

Over the last few years, the mobile and wireless market has been one of the fastest growing markets in the world and it is still growing at a rapid pace. According to the GSM Association and Ovum, the number of mobile subscribers exceeded 2 billion in September 2005, and now exceeds 2.5 billion (of which more than 2 billion are GSM).

According to a study by financial consultancy Client, 35% of online banking households will be using mobile banking by 2010, up from less than 1% today. Upwards of 70% of bank center call volume is projected to come from mobile phones. Mobile banking will eventually allow users to make payments at the physical point of sale. "Mobile contact less payments" will make up 10% of the contact less market by 2010. Another study from 2010 by Berg Insight forecasts that the number of mobile banking users in the US will grow from 12 million in 2009 to 86 million in 2015. The same study also predicts that the European market will grow from 7 million mobile banking users in 2009 to 115 million users in 2015.

Many believe that mobile users have just started to fully utilize the data capabilities in their mobile phones. In Asian countries like India, China, Bangladesh, Indonesia and Philippines, where mobile infrastructure is comparatively better than the fixed-line infrastructure, and in European countries, where mobile phone penetration is very high (at least 80% of consumers use a mobile phone), mobile banking is likely to appeal even more.

Mobile banking business models:

A wide spectrum of Mobile banking models is evolving. However, no matter what business model, if mobile banking is being used to attract low-income populations in often rural locations,

the business model will depend on banking agents, i.e., retail or postal outlets that process financial transactions on behalf Telco's or banks. The banking agent is an important part of the mobile banking business model since customer care, service quality, and cash management will depend on them. Many Telco's will work through their local airtime resellers. However, banks in Colombia, Brazil, Peru, and other markets use pharmacies, bakeries, etc.

These models differ primarily on the question that who will establish the relationship (account opening, deposit taking, lending etc.) to the end customer, the Bank or the Non-Bank/Telecommunication Company (Telco). Another difference lies in the nature of agency agreement between bank and the Non-Bank. Models of branchless banking can be classified into three broad categories - Bank Focused, Bank-Led and Nonbank-Led.

Bank-focused model:

The bank-focused model emerges when a traditional bank uses non-traditional low-cost delivery channels to provide banking services to its existing customers. Examples- range from use of automatic teller machines (ATMs) to internet banking or mobile phone banking to provide certain limited banking services to banks' customers. This model is additive in nature and may be seen as a modest extension of conventional branch-based banking.

Bank-led model:

The bank-led model offers a distinct alternative to conventional branch-based banking in that customer conducts financial transactions at a whole range of retail agents (or through mobile phone) instead of at bank branches or through bank employees. This model promises the potential to substantially increase the financial services outreach by using a different delivery channel (retailers/ mobile phones), a different trade partner (Telco / chain store) having experience and target market distinct from traditional banks, and may be significantly cheaper than the bank-based alternatives.

Non-bank-led model:

The non-bank-led model is where a bank has a limited role in the day-to-day account management. Typically its role in this model is limited to safekeeping of funds. Account management functions are conducted by a non-bank (e.g. Telco) who has direct contact with individual customers.

Mobile Banking Background:



A woman counts her cash after a withdrawal from the first cash point machine in London, in 1967.

For 30 years, financial institutions have been on a quest to satisfy their customers' need for more convenience. First come the automated teller machine (ATM), which New York's Chemical Bank introduced to the American public in 1969. It did little more than dispense cash at first, but

the ATM evolved over time to become a true bank-away-from- bank, providing a full suite of financial transactions.

Then come Internet banking in the mid-1990s, which enabled consumers to access their financial accounts using a home computer with an Internet connection. Despite its promise of ultimate convenience, online banking saw slow and tentative growth as banks worked out technology issues and built consumer trust. Today, Internet banking has reached a critical mass, with about 35 percent of U.S. households conducting bank transactions online.

Not so with mobile phones. They can be carried anywhere and are -- by an enormous number of people. More than 238 million people in the U.S. have mobile phones. That's a whopping 78 percent of the population. And worldwide there are more than 3.25 billion mobile phone subscribers, with penetration topping 100 percent in Europe.

If mobile phones only delivered voice data, then their use as a vehicle to deliver banking services would be limited. Most phones, however, also provide text-messaging capabilities, and a growing number are Web-enabled. That makes the mobile phone an ideal medium through which banks can deliver a wide variety of services.

Banks classify these services based on how information flows. A pull transaction is one in which a mobile phone user actively requests a service or information from the bank. For example, inquiring about an account balance is a pull transaction. So is transferring funds, paying a bill or requesting a transaction history. Because banks must respond or take some action based on the user request, pull transactions are considered two-way exchanges.

A push transaction, on the other hand, is one in which the bank sends information based on a set of rules. A minimum balance alert is a good example of a push transaction. The customer defines the rule -- "Tell me when my balance gets below \$100" -- and the bank generates an automatic message any time that rule applies. Similar alerts can be sent whenever there is a debit transaction or a bill payment. As these examples illustrate, push transactions are generally one way, from the bank to the customer.

We can also classify mobile banking based on the nature of the service:

- Transaction-based services, such as a funds transfer or a bill payment, involve movement of funds from one source to another.
- Inquiry-based services don't. They simply require a response to a user query. The chart below summarizes these various types of mobile banking services:

	Push	Pull
Transaction		<ul style="list-style-type: none">• Funds transfer• Bill payment• Share trade• Check order
Inquiry	<ul style="list-style-type: none">• Minimum balance alert• Credit/debit alert• Bill payment alert	<ul style="list-style-type: none">• Account balance inquiry• Account statement inquiry• Check status inquiry• Transaction history

Clearly, push transactions are not as complex as their pull counterparts. Mobile banking solutions also vary in their degree of complexity, and some only offer a fraction of the services you would find in a bricks-and-mortar branch. In this respect, mobile banking isn't always full-service banking. The factors that affect this are the type of phone being used, the service plan of the mobile subscriber and the technology framework of the bank. We'll look at these technologies next.

Challenges for a Mobile Banking Solution:

Key challenges in developing sophisticated mobile banking applications are:

Handset operability:

There are a large number of different mobile phone devices and it is a big challenge for banks to offer mobile banking solution on any type of device. Some of these devices support Java ME and others support SIM Application Toolkit a WAP browser, or only SMS.

Initial interoperability issues however have been localized, with countries like India using portals like R-World to enable the limitations of low end java based phones, while focus on areas such as South Africa have defaulted to the USSD as a basis of communication achievable with any phone.

The desire for interoperability is largely dependent on the banks themselves, where installed applications (Java based or native) provide better security, are easier to use and allow development of more complex capabilities similar to those of internet banking while SMS can provide the basics but becomes difficult to operate with more complex transactions.

There is a myth that there is a challenge of interoperability between mobile banking applications due to perceived lack of common technology standards for mobile banking. In practice it is too early in the service lifecycle for interoperability to be addressed within an individual country, as very few countries have more than one mobile banking service provider. In practice, banking interfaces are well defined and money movements between banks follow the ISO-8583 standard. As mobile banking matures, money movements between service providers will naturally adopt the same standards as in the banking world.

On January 2009, Mobile Marketing Association (MMA) Banking Sub-Committee, chaired by Cell Trust and Veri Sign Inc., published the Mobile Banking Overview for financial institutions in which it discussed the advantages and disadvantages of Mobile Channel Platforms such as Short Message Services (SMS), Mobile Web, Mobile Client Applications, SMS with Mobile Web and Secure SMS.

Security:

Security of financial transactions, being executed from some remote location and transmission of financial information over the air, are the most complicated challenges that need to be addressed jointly by mobile application developers, wireless network service providers and the banks' IT departments.

The following aspects need to be addressed to offer a secure infrastructure for financial transaction over wireless network:

- ✓ Physical part of the hand-held device. If the bank is offering smart-card based security, the physical security of the device is more important.
- ✓ Security of any thick-client application running on the device. In case the device is stolen, the hacker should require at least an ID/Password to access the application.
- ✓ Authentication of the device with service provider before initiating a transaction. This would ensure that unauthorized devices are not connected to perform financial transactions.
- ✓ User ID / Password authentication of bank's customer.
- ✓ Encryption of the data being transmitted over the air.
- ✓ Encryption of the data that will be stored in device for later / off-line analysis by the customer.

One-time passwords (OTP's) are the latest tool used by financial and banking service providers in the fight against cyber fraud. Instead of relying on traditional memorized passwords, OTPs are requested by consumers each time they want to perform transactions using the online or mobile banking interface. When the request is received the password is sent to the consumer's phone via SMS. The password is expired once it has been used or once its scheduled life-cycle has expired.

Because of the concerns made explicit above, it is extremely important that SMS gateway providers can provide a decent quality of service for banks and financial institutions in regards to SMS services. Therefore, the provision of service level agreements (SLAs) is a requirement for this industry; it is necessary to give the bank customer delivery guarantees of all messages, as

well as measurements on the speed of delivery, throughput, etc. SLAs give the service parameters in which a messaging solution is guaranteed to perform.

Application distribution:

Due to the nature of the connectivity between bank and its customers, it would be impractical to expect customers to regularly visit banks or connect to a web site for regular upgrade of their mobile banking application. It will be expected that the mobile application itself check the upgrades and updates and download necessary patches (so called "Over the Air" updates). However, there could be many issues to implement this approach such as upgrade / synchronization of other dependent components.

Basic Mobile Banking Technologies:

There are four fundamental approaches to mobile banking. The first two rely on technologies that are standard features on almost all cell phones.

Interactive Voice Response (IVR): If we have ever called our credit card issuer and meander through a confusion of prompts -- "For English, press 1; for account information, press 2" -- then you're familiar with interactive voice response. In mobile banking, it works like this:

Banks advertise a set of numbers to their customers.

- ✓ Customers dial an IVR number on their mobile phones.
- ✓ They are greeted by a stored electronic message followed by a menu of options.
- ✓ Customers select an option by pressing the corresponding number on their keypads.
- ✓ A text-to-speech program reads out the desired information.

IVR is the least sophisticated and the least "mobile" of all the solutions. In fact, it doesn't require a mobile phone at all. It also only allows for inquiry-based transactions, so customers can't use it for more advanced services.

History of Mobile Banking in Abroad:

Improving access to financial services, such as savings, deposits, insurance and remittances, is vital to reducing poverty. Savings can help poor people to invest in productive assets like livestock, a loan may help to expand business activities, and insurance can provide income for a family if a breadwinner becomes sick. In many developing countries, however, 9 out of 10 people do not have a bank account or access to basic financial services. Poor people are often not considered viable customers by the formal financial sector as their transaction sizes are small, and many live in remote areas beyond the reach of banks branch networks. Informal banking services such as microfinance and village savings and loan associations remain limited in their reach.

The first mobile banking and payment initiatives were announced during 1999 (the same year that Fundamo deployed their first prototype). The first major deployment was made by a company called Pay box (largely supported financially by Deutsche Bank). The company was founded by two young German's (Mathias Entemann and Eckart Ortwein) and successfully deployed the solution in Germany, Austria, Sweden, Spain and the UK. At about 2003 more than a million people were registered on Pay box and the company were rated by Gartner as the leader in the field. Unfortunately Deutsche Bank withdraws their financial support and the company had to reorganise quickly. All but the operations in Austria closed down. Another early starter and also identified as a leader in the field was a Spanish initiative (backed by BBVA and Telefonica), called Mobi Pago. The name was later changed to Mobi Pay and all banks and mobile operators in Spain were invited to join. The product was launched in 2003 and many retailers were acquired to accept the special USSD payment confirmation. Because of the complex shareholding and the constant political challenges of the different owners, the product never fulfilled the promise that it had. With no marketing support and no compelling reason for adoption, this initiative is floundering at the moment. Many other large players announced initiatives and ran pilots with big fanfare, but never showed traction and all initiatives were ultimately discontinued. Some of the early examples are the famous vending machines at the Helsinki airport supported by a system from Nokia. Siemens made announcements in conjunction with listed and high-flying German e-commerce company, Brokat. Brokat also won

the lucrative Vodafone contract in 2002, but crashed soon afterwards when it runs out of funds. Israel (as can be expected) produced a large number of mobile payment start-ups. Of the many, only one survived – Trivnet. Others like Adamtech (with a technically sound solution called Cell pay) and Paytt disappeared after a number of pilots but without any successful production deployments. Initiatives in Norway, Sweden and France never got traction. France Telecom launched an ambitious product based on a special mobile phone with an integrated card reader. The solution worked well, but never became popular because of the unattractive, special phone that participants needed in order to perform these payments. Since 2004, mobile banking and payment industry has come of age. Successful deployments with positive business cases and big strategic impact have been seen recently.

History of Mobile Banking in Bangladesh

Recent developments have dramatically altered the banking landscape and transformed the relationships between banks and their customers. This is making it more difficult for banks to retain assets, acquire new deposits, cross-sell products or acquire new customers.

Customers are feeling the need to stay vitally connected to their accounts, but that is driving up the cost to service them.

However, traditional interaction channels, including most mobile banking solutions, are ‘customer reactive’. Whether they have an enquiry or require service, customers must initiate contact with the bank.

“Dutch-Bangla Bank Limited” (DBBL) has for the first time introduced its mobile banking service expanding the banking service from cities to remote areas. Bangladesh Bank Governor Atiur Rahman inaugurated the service by depositing Tk 2,000 and withdrawing Tk 1,500 through Banglalink and Citycell mobile networks in Motijheel area. Bangladesh Bank has already allowed 10 banks to initiate mobile banking. Of them DBBL kicked off first." Mobile banking is an alternative to the traditional banking through which banking service can be reached at the doorsteps of the deprived section of the society,” the central bank governor said at an inaugural

press briefing at Hotel Purbani. Atiur Rahman said through mobile banking various banking services including depositing and withdrawing money, payment of utility bills and reaching remittance to the recipient would be possible. By going to the DBBL-approved Citycell and Banglalink agents throughout the country the subscribers on showing necessary papers and payment of a fee of Tk 10 can open an account. To avail of the banking service a subscriber will require owning a cell phone of any provider and he will be given a four-digit PIN. By using the PIN he can operate all types of banking services including depositing and withdrawing money maintaining security and secrecy of his account. The customer will hand over cash to the agent and the agent will initiate the transaction from his mobile phone, the agent will help the account holder to do the banking using his PIN. A customer can deposit or withdraw money five times a day and he can deposit or draw Tk 5,000 per day. One percent of the transaction amount or Tk 5, whichever is higher, will be taken as cash-in-charges. In case of cash out the charge will be 2 percent of the transaction amount or Tk 10. However, the registration fee, salary and remittance disbursement services will be provided free of cost.

“BRAC Bank Limited” is set to introduce mobile banking secondly, a top official said the service will enable millions of banked and unbanked people to deposit, withdraw and transfer money through mobile phones. bKash, a joint venture between BRAC Bank and US-based Money in Motion, will provide mobile banking with a fully encrypted VISA technology platform for transactions through mobile phones. Any mobile user can register and open up a bKash account and then do transactions through their mobile phones in easy, convenient and reliable way. “bKash will fundamentally change the way people now do transactions, as all transactions will be possible through mobile phones in future,” said Syed Mahbubur Rahman, managing director of the bank. “Customers will not need to come to the bank; rather the bank will go to them,” he said at a press conference in Dhaka on the occasion of its 10th founding anniversary. The bank said a bKash account will act as a digital mobile wallet and anybody can take the service. “Your mobile phone will become your wallet. Customers can get financial services through phones, even by the handset that costs the lowest,” Rahman said. Under a partnership with UNDP and Local Government Division, bKash is rolling out mobile banking in 4,501 union

parishads in the country. bKash has already signed a deal with a leading mobile operator and is in talks with others to enable all mobile users -- currently around 7.5 crore -- to have individual digital wallets, said Mamdudur Rashid, deputy managing director of the bank. BRAC Bank launched its operation 10 years back with the objective of bringing unbanked people under formal banking coverage. The business model of the bank is to mobilise deposits from urban areas and disburse it to rural areas. The country's youngest bank has already set some records: it has acquired over 12 lakh customers, bringing full banking services not only to small and medium enterprises, but all strata of the banking industry, said the bank "Being the youngest Bangladeshi bank, we have emerged as the largest SME bank serving about 3.65 lakh entrepreneurs at grassroots level, an achievement that helped global recognition for this Bangladeshi bank," said Rashid The bank believes in 3P philosophy -- people, planet and profit and has been active in Green banking. It has already turned 22 of its SME Unit Offices solar-powered and plans to convert the rest in the same manner by 2012.

Features/Mobile Banking Services (In General):

Mobile banking can offer services such as the following:

1) Account Information:

- Mini-statements and checking of account history
- Alerts on account activity or passing of set thresholds
- Monitoring of term deposits
- Access to loan statements
- Access to card statements
- Mutual funds / equity statements
- Insurance policy management
- Pension plan management

2) Payment, Deposits, Withdrawals & Transfers:

- Domestic and international fund transfers
- Micro-payment handling
- Mobile recharging

- Commercial payment processing
- Bill payment processing

A specific sequence of SMS messages will enable the system to verify if the client has sufficient funds in his or her wallet and authorize a deposit or withdrawal transaction at the agent. When depositing money, the merchant receives cash and the system credits the client's bank account or mobile wallet. In the same way the client can also withdraw money at the merchant: through exchanging sms to provide authorization, the merchant hands the client cash and debits the merchant's account.

3) Investments:

- Portfolio management services
- Real-time stock quotes
- Personalized alerts and notifications on security prices

4) Support:

- Status of requests for credit, including mortgage approval, and insurance coverage
- Check (cheque) book and card requests
- Exchange of data messages and email, including complaint submission and tracking

5) Content Services:

- General information such as weather updates, news
- Loyalty-related offers
- Location-based services

Based on a survey conducted by Forrester, mobile banking will be attractive mainly to the younger, more "tech-savvy" customer segment. A third of mobile phone users say that they may consider performing some kind of financial transaction through their mobile phone. But most of the users are interested in performing basic transactions such as querying for account balance and making bill payment.

DBBL Mobile Banking products & services

Mobile banking is a banking process that offers financial services like cash deposit, cash withdrawal, merchant payment, utility payment, salary disbursement, remittance inflow and outflow and government allowance disbursement through mobile gadgets. Initially the government has given its approval to 10 banks to operate mobile-banking. DBBL is the first bank to grasp the opportunity. Under the service, any mobile handset with subscription to any of the two partner cellular companies would be able to avail the service.

On a Meet the Press programmed organized at a hotel in Dhaka after the kick start of the service, the central bank governor termed occasion as a milestone for the country's banking sector. He said it would be a creative, cost-effective and secured banking service.

What does DBBL Mobile banking offer?

- Customer Registration
- Cash-r (cash deposit)
- Cash-out (cash withdrawal)
- Foreign Remittance
- Salary debasement
- Person to Person Transfer (P2P)
- Air time top up
- Balance Inquiry

Which Mobile can be registered?

Customer having any mobile from any mobile Operator' can be registered or DBBL Mobile Banking at any numerated agent pot of Vie bank.

What is my mobile account number?

Your Mobile account number is your mobile number with an additional check digit for example if your mobile number is 01233445666 and check digit is 3 Then your account number will be 012334456683

Where to cash-in (cash deposit)?

Customer can cash-in (deposit at any authorized agent of DBBL or DBBL Branch.

How does it work?

- Customer hands over cash to Agent
- Agent inflates the transaction, from his/her mobile
- Agent gets prompt menu and in reply agent enters customer's mobile account number (including check digit) and amount
- Agent enters his/her PIN
- System credits customer's account for the same amount
- Agent issues a receipt to the customer
- System sends a SMS to the customer's mobile
- For security reason customer needs to check the sending number of SMS at the amount SMS will be sent from 16216 or 01190016216 if the amount of money is not correct or the SMS send from different number then it would not be considered as correct.

Where to cash-out (cash withdrawal)?

Customer can cash-out (withdraw) at any authorized agent point of DBBL or DBBL Branch

How does it work?

- Customer asks the Agent for withdrawal of an amount from his or her mobile account
- Agent initiates the transaction from his/her mobile
- Agent gets prompt menu and in replay agent enters customer's mobile account number (including check digit) and amount to withdraw
- DBBL system sends prompt menu to the customer's mobile (or by IVR Call "You are going to withdraw Tk. XXXX from your mobile account with DBBL if you want to continue, please enter your 4-digit pin
- Customer enters his/her PIN

- System debited customers account and sends an SMS to the customers mobile
- Agent hands over money to the customer

How will you send foreign remittance?

From the Nominated Exchange Houses of DBBL:

you can send remittance from any nominated Exchange Houses of Dutch- Bangla Bank located all over the world The remitted money would be transferred to the beneficiary's mobile account number within 24 hours and the beneficiary will immediately receive SMS about the deposit to avail the service just provide the following information at the exchange house:

- Amount
- Beneficiary's Name Bank Name (Dutch-Bangla Bank) and Mobile Account number

From The Nominated Exchange Houses of Other Bank:

You can send remittance to the nominated exchange houses of other Bangladeshi banks, the remitted money will be deposited to beneficiary's mobile account Within 2-3 working days and the beneficiary will immediately get an SMS about the deposit. To avail the service, just provide the following information at the exchange houses:

- Amount
- Beneficiary's Name. Bank Name Dutch-Bangla Bank) and Mobile Account Number.

bKash Mobile Banking products & services

bKash Limited is a joint venture between BRAC Bank Ltd., Bangladesh, and Money in Motion LLC, USA. Ensuring access to a broader range of financial services for the people of Bangladesh is the ultimate objective of bKash. It has a special focus to serve the low income people of the country and promote sustainable micro-savings to achieve broader financial inclusion by providing financial services that are convenient, affordable and reliable.

bKash is working both as an extension of BRAC Bank and as a full-scale mobile phone-based payment switch. This will highly benefit the country as 83% of the population lives under \$2 a day and access to finance can help in improving their economic situation. Less than 15% of Bangladeshis are connected to the formal financial system whereas 44% of total populations are having mobile phones. Providing financial services using this mean can make the service more accessible and cost effective for the vast population of Bangladesh.

bKash is dedicated to provide financial services through an extensive network of community-based agents and existing technology, including mobile phones. The overall value proposition is simple: a safe, fast & convenient way to send and receive money, make payments anytime anywhere and store or safekeeping of your hard earned money.

bKash is a Payment System Operator (PSO) License holder, and is regulated by the Bangladesh Bank. bKash maintains proper documentation to follow Money Laundering Prevention Act 2009, Anti Terrorism Act 2009 and Bangladesh Bank's Guidelines on Mobile Financial Services (MFS) for Banks 2011, where applicable.

Cash in

You need to have money stored in your bKash wallet to avail the services. So, before doing any transaction, make sure you have sufficient balance in your wallet. For putting money in your wallet, follow the steps below -

1. Go to any bKash agent
2. Let him know the amount you want to Cash In

3. Write down your wallet number and the Cash In amount in Agent register
4. Pay the amount of money you want to cash in
5. In exchange, the agent will send bKash money to your wallet. Cash In done!
6. You and the agent both will get confirmation message. Remember to put your signature in the agent register before leaving the counter

Cash out

If you have sufficient credit in your bKash wallet, you can withdraw cash anytime from anywhere. To Cash Out from your wallet-

1. Go to any bKash agent
2. Let him know the amount you want to cash out
3. Write down your wallet number & the amount in Agent register
4. Dial *247# on your mobile for bKash menu
5. Choose “Cash Out”
6. Choose “From Agent”
7. Enter Agent’s wallet number (ask the agent)
8. Enter the amount
9. Enter your wallet PIN
10. Done! You and the Agent both will receive confirmation message. Count the amount and put your signature in Agent register before leaving the counter

Send money

Send Money enables you to transfer money to other's wallet. Follow the steps below -

1. Go to bKash Menu by dialing *247#
2. Choose 'Send Money'
3. Enter the wallet number you want to send money to
4. Enter the amount you want to send

5. Enter a reference about the transaction. Do not use more than one word, avoid space or special characters
6. Now enter your wallet PIN to confirm the transaction
7. Done! You and the Receiver both will receive confirmation message

Payment

Customer can make payment from his own wallet to any small or big business entity who accepts bKash. For example, if you want to pay after shopping, use the following steps-

1. Go to bKash Menu by dialing *247#
2. Choose 'Payment'
3. Enter the business wallet number you want to pay to
4. Enter the amount you want to pay
5. Enter a reference against your payment (you can mention the purpose of the transaction in one word. Ex: Bill)
6. Enter the counter number (the salesperson at the counter will tell you the number)
7. Now enter your PIN to confirm
8. Done! You will get a confirmation SMS

Advantages of Mobile Banking

People use mobile banking as because Mobile banking offers many advantages, such as good security, easy access and plentiful applications for smart phones. , president of Javelin Strategy & Research in Pleasanton, Calif. "You don't have Internet connections everywhere you go. But you do have a mobile connection. Using mobile banking people can check more easily account balance from anywhere they are and at any moment.

The downside is that mobile banking isn't as good as it could be. The reason, many services are pretty basic. People use it to check balances and monitor finances. Largely, it's an augment to the Internet.

- Reduce cost of touch & service: realize tremendous savings by deferring expenses from contact centers or IVRs to the more cost-effective mobile channel.
- Maximize trust & customer retention: increase loyalty by giving customers unprecedented control over their accounts, billing and overall financial health.
- Drive cross-sell opportunities: deliver cross-sell marketing messages to customers easily and inexpensively via proactive, actionable alerts.
- Lower total cost of ownership: utilize Mobile across multiple lines of business at the bank (retail, wholesale/treasury, card services, etc.)
- Expand traditional online banking: offer more services by integrating Mobile into existing online banking systems, including the Portal solutions and other 3rd party applications.

Banks typically let you access accounts via text, mobile browsers or downloadable applications. Text is the simplest method for many. It plays an important role. It's best for alerts, especially when your account is low. Using your Web browser accesses your online account. It's the way most people do their mobile banking. But downloadable applications are expanding quickly. The biggest advantage that mobile banking offers to banks is that it drastically cuts down the costs of providing service to the customers. For example an average teller or phone transaction costs about \$2.36 each, whereas an electronic transaction costs only about \$0.10 each. Additionally, this new channel gives the bank ability to cross-sell up-sell their other complex banking products and services such as vehicle loans, credit cards etc.

For service providers, Mobile banking offers the next surest way to achieve growth. Countries like Korea where mobile penetration is nearing saturation, mobile banking is helping service providers increase revenues from the now static subscriber base. Service providers are increasingly using the complexity of their supported mobile banking services to attract new customers and retain old ones.

A very effective way of improving customer service could be to inform customers better. Credit card fraud is one such area. A bank could, through the use of mobile technology, inform owners each time purchases above a certain value have been made on their card. This way the owner is always informed when their card is used, and how much money was taken for each transaction.

Similarly, the bank could remind customers of outstanding loan repayment dates, dates for the payment of monthly installments or simply tell them that a bill has been presented and is up for payment. The customers can then check their balance on the phone and authorize the required amounts for payment. The customers can also request for additional information. They can automatically view deposits and withdrawals as they occur and also pre-schedule payments to be made or cheques to be issued. Similarly, one could also request for services like stop cheque or issue of a cheque book over one's mobile phone.

There are number of reasons that should persuade banks in favor of mobile phones. They are set to become a crucial part of the total banking services experience for the customers. Also, they have the potential to bring down costs for the bank itself. Through mobile messaging and other such interfaces, banks provide value added services to the customer at marginal costs.

Such messages also bear the virtue of being targeted and personal making the services offered more effective. They will also carry better results on account of better customer profiling. Yet another benefit is the anywhere/anytime characteristics of mobile services. A mobile is almost always with the customer. As such it can be used over a vast geographical area. The customer does not have to visit the bank ATM or a branch to avail of the bank's services. Research indicates that the number of footfalls at a bank's branch has fallen down drastically after the installation of ATMs. As such with mobile services, a bank will need to hire even less employees as people will no longer need to visit bank branches apart from certain occasions.

Disadvantages of Mobile Banking

Security

Security experts generally agree that mobile banking is safer than computer banking because very few viruses and Trojans exist for phones. That does not mean mobile banking is immune to security threats, however.

Mobile users are especially susceptible to a phishing-like scam called "smishing." It happens when a mobile banking user receives a fake text message asking for bank account details from a hacker posing as a financial institution. Many people have fallen for this trick and had money stolen through this scam.

Online banking is usually done through an encrypted connection so that hackers cannot read transmitted data, but consider the consequences if your mobile device is stolen. While all banking applications require you to enter a password or PIN, many people configure their mobile devices to save passwords, or use insecure passwords and PINs that are easy to guess.

Compatibility

We need a smart phone to get the most out of mobile banking.

Mobile banking is not available on every device. Some banks do not provide mobile banking at all. Others require you to use a custom mobile banking application only available on the most popular smart phones, such as the Apple iPhone and RIM Blackberry. Third-party mobile banking software is not always supported.

If you do not own a smart phone, the types of mobile banking you can do are usually limited. Checking bank account balances via text message is not a problem, but more advanced features such as account transfers are generally not available to users of "dumb phones."

Cost

The cost of mobile banking might not appear significant if you already have a compatible device, but you still need to pay data and text messaging fees. Some financial institutions charge an extra fee for mobile banking service, and you may need to pay a fee for software. These extra charges quickly add up, especially if you access mobile banking.

Findings of the report

The use of mobile banking increasing gradually when the mobile device comes with the awesome features and greater mobility as the people want maintaining an account through mobile is very convenient. To make mobile banking services more user friendly banks look for future prospects to be implemented. Since this service is not very common to all for that reason modification and improvement is necessary in order to enable all types of bank's customer as a result of that everyone will be able to maintain an account through m-banking so the steps to be taken can be stated as under.

- Mobile Banking drastically cuts down the costs of providing service to the customers.
- Service providers are increasingly using the complexity of their supported mobile banking services to attract new customers and retain old ones.
- A very effective way of improving customer service could be to inform customers better. Credit card fraud is one such area.
- The banks add to this personalized communication through the process of automation.
- Mobile banking is not available on every device. Some banks do not provide mobile banking at all.
- The cost of mobile banking might not appear significant if we already have a compatible device, but we still need to pay data and text messaging fees.
- Personalization of corporate banking services: - Personalization experience for multiple roles and hierarchies in corporate banking as against the vanilla based segment based enhancements in the current context.
- Content monetization: - Micro level revenue themes such as music, e-book download
- Communication enrichment: - Video Interaction with agents, advisors.
- Pervasive Transactions capabilities: - Comprehensive "Mobile wallet"

Recommendation of the report

Considering above discussions regarding m-banking we can recommend banks those are providing this facility that application that is to be downloaded in order to operate the account through mobile should be user friendly at the same time they should keep in view of capacity of the people of the respective country in which they are likely to provide this type of banking if the required mobile phone is much expensive and the unavailability of frequency service exist then not all people will be able to get this facility. And charges of bank and the security is another concern for account holder so it is necessary to ensure strong security and minimum maintaining cost of mobile banking.

- We need to create a new flexible and easy model of mobile banking
- Need to include the service of cash withdraw from ATM by using mobile as smart card and the mobile banking PIN number.
- Need to reduce the cost of mobile banking
- Need to Increase social awareness about mobile banking service among the rural people
- All banks should provide this opportunity than mobile banking limitation can be reduced.
- Government should provide help about mobile banking.
- Rules and Regulations must be stricken about mobile banking.
- Scheduled Banks should introduce the Mobile banking throughout the country by using different advertising Strategy.
- Facility & advantage of Mobile banking should be focused by the scheduled banks.

Conclusion

Mobile banking is suspended to become the big killer mobile application arena. However, banks going mobile the first time need to step the path cautiously. The biggest decision that banks need to make is the channel that they will support their services on. Mobile banking through an SMS based service would require the lowest amount of effort, in terms of cost and time, but will not be able to support the full breath of transaction-based services. However, in markets like India where a bulk of the mobile population users' phones can only support SMS based services, this might be the only option left.

On the other hand a market heavily segmented by the type and complexity of mobile phone usage might be good place to roll of WAP based mobile applications. According to the Gartner Group, mobile banking services will have to support a minimum of 50 different device profiles in the near future.

However, currently the best user experience, depending on the capabilities of a mobile phone, is possible only by using a standalone client.. Mobile Application based banking is poised to be a big m-commerce feature, and if South Korea's foray into mass mobile banking is any indication, mobile banking could well be the driving factor to increase sales of high-end mobile phones. Nevertheless, Bank's need to take a hard and deep look into the mobile usage patterns among their target customers and enable their mobile services on a technology with reaches out to the majority of their customers.

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