



*International Journal Of*  
**Recent Scientific  
Research**

ISSN: 0976-3031  
Volume: 7(5) May -2016

MOBILE BANKING SERVICES

Rayan anwar Mohamed alawad and  
Mohammed Abaker Hussin



THE OFFICIAL PUBLICATION OF  
INTERNATIONAL JOURNAL OF RECENT SCIENTIFIC RESEARCH (IJRSR)  
<http://www.recentscientific.com/> [recentscientific@gmail.com](mailto:recentscientific@gmail.com)



ISSN: 0976-8031

Available Online at <http://www.recentscientific.com>

International Journal of Recent Scientific Research  
Vol. 7, Issue, 5, pp. 11095-11097, May, 2016

**International Journal of  
Recent Scientific  
Research**

## Research Article

### MOBILE BANKING SERVICES

**Rayan anwar Mohamed alawad and Mohammed Abaker Hussin**

Sudan – Khartoum AL Neelain University Faculty of Engineering

#### ARTICLE INFO

##### Article History:

Received 11<sup>th</sup> February, 2016  
Received in revised form 14<sup>th</sup> March, 2016  
Accepted 18<sup>th</sup> April, 2016  
Published online 28<sup>th</sup> May, 2016

##### Keywords:

Mobile Payment, mobile Banking  
Services M-Payment

#### ABSTRACT

Cause of the money and the time are the most important elements in the human life specially in the era of technology we must direct all our efforts to save those elements which its substantially influenced by the banking services which is evolved to be mobile banking service .and the concept (M-Payment) was been trendy ,widespread and known. The mobile banking services are batteningly being adopted by companies and banks as a new way of dealing with customers now a days. during the last few years the use of mobile banking service system as a new banking service has resulted in an increase in the bulk of literature dedicated to the topic for this reason this paper will present the finding of review of precedent works aimed at identifying the key research, themes and methodologies presented.

Copyright © Rayan anwar Mohamed alawad and Mohammed Abaker Hussin., 2016, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

#### INTRODUCTION

The most precious goal for the all banks around the globe is attract huge numbers of customers to increase their income and extending their branches. The clients satisfaction has been considered the mean indicator for the quality of service in the banks. So we must know what they need? What make them gratified?? And how we can execute that for them. They need accessibility in the service easy to get anywhere any time if they are hanging out side with friends or at work, in the morning or at night. They need privacy and confidentiality their information and accounts cannot reached by unauthorized one, they need easygoingness and their procedures goes easy and comfortably. rather than congestion and delays when they are in large branch cause of the large numbers of customers, the bad treatment from bank staff, the difficulty of renewing the ATM cards and the checks. Those are completely refused and reflect a negative impact in the quality of service there for we are in indigence need for a system provide us by the all customers needs and avoided the last problems ultimately the solution has been found in the mobile banking service. It refers to use of Smart phones or other cellular device to perform online banking and it's safe too. All their transactions are centered on their phone. For banks the mobile banking service has a witchcraft to attract the new customers, paring operational costs and avoid the rush hours in the bank.

#### Literature Survey

project by [Latoya H .JAMES](#), [M.Karthika](#), [A.Manimaran](#), [N.Vanithadevi](#) and [Anline Lizie. R](#) and [Mr. Y.Singston](#) Albert Dhas presented portable handheld secured electronic bank to home system its a micro bank machine which it used to provide service to the clients in the marginal places and help the disable people. The device completely operated in both offline and online manner. The device implemented to provide security purpose for user privacy in specific RFID application like location or location related information (speed) behaves as a legitimate access context. The purpose that both tags and back end server are used in location awareness for protecting against unauthorized achievement. Unlocking mechanism can be designed for the tags which can selectively respond to reader interrogations in addition of doing so promiscuously. In the other side the server the need to design a location aware secure transaction verification scheme for bank server to take its decision in order to approve or deny the payment transaction and a particular type of relay attack involving malicious reader.

The other one designed the same idea and devolved it to involve many parts the project called Hand held electronic banking device it a mobile, handheld electronic (processor-based) device it used for traditional banking functions involving reviewing the account activity in legal format, confirming the account balance, also writing checks and other functions related to the banking services. Using the processor the device will excite three mean tasks first one can project and

\*Corresponding author: [Rayan anwar Mohamed alawad](#)  
Sudan – Khartoum AL Neelain University Faculty of Engineering

display ledger for personal bank checking account and the dollar balance for it depend on the data of check and deposit which stored in at least one memory. The second task the designed a local data network to initiate a transaction contain the data for new check written by the user from the personal bank checking account at point-sale location. The last task is updating activity for the checking account with data of the transaction received via mobile telecommunications network from remote bank computer server system.

The third one devolved the idea and their main aim of the handheld machine is to administer banking services like money withdrawals and money deposit while not the person ever aiming to a bank even in remote areas wherever even a GSM cellular association isn't possible [2] [4] [7] .

Study by U.S Pandey, Geetanjali, Zhong Wan, Weifeng Yin and Ronggao Sun Presented a method for developing banking services throw mobile phone in the bank area. In their method they supposed a server which is capable to connected through Bluetooth and holding the banking services is installed inside the bank. The clients inside and around the bank are capable to connect to the bank system via Bluetooth technology and achieve their banking operations via their mobile phones. this effective way save the clients time and handle their banking operations when they are treating their own matters inside their cars which are barking beside the bank and they don't need to pay additional costs on the other hand the bank will avoid the rush hours. Since the method relay on Bluetooth technology which is common and available in the majority of phones that means a lot of device can use the system.

Nwankwo Prince .N., Orji Mary .N. and Osuji Christopher .U presented a Design and Implementation of Short Message Service (SMS) Banking System. Their idea was to enable the customers to achieve their banking operations with SMS technology via their mobile phones. The purpose of their design terminating the problems related to the banking system like queuing up to: check the balance, display basic information about the account, review the transaction history, and recharge mobile phone. Their methodology considered a computer program running on visual basic (0.6) and (GPRS) General Packet Radio Service with other mean component to invent a new technology to allow the customer achieving many tasks: request and receive information to their mobile phone via (SMS) service, get other bank activities remotely without necessity of exist inside the bank. The system designed to carry out some tasks like balance enquiry, fund deposit/ transfer and mobile phone recharge. it's really powerful design provide great services ä Max Günther and Bernd Borchert presented Online Banking with NFC-enabled Bank Card and NFC-enabled Smartphone. Their idea present NFC-TAN as smart phone method to provide the authentication. they developed the use of smart phones to authorize online banking transactions the previous methods are vulnerable to smart phone malware but the NFC-TAN provide all authentication requirements like strong credential debit card and no additional device, usability, cost and flexibility [6]. Peter K.Buchhop, Anne Bradford FYK and Krsto Sitar implemented an application for mobile implementation channel execute the process of request and response between customer and banks.

**Table 1** show the methodology, contribution and limitations of the papers

Paper's author	Operation mode	privacy	complicity	cost	Communication technology	reliability	Utilization
Latoya H. JAMES	Online and off-line mode	Mediam	High	high	RFID Application	Medium	High
M.Karthika,A.Manimaran and N.Vanithadevi	Online	Medim	High	high	Mobile telecommunications network	high	high
Anline Lizie.R and Mr. Y.Singston Albert Dhas	Online	high	Medium	Medium	Include all the bank's operations.	High	High
U.S Pandey and Geetanjali	Online	medim	Low	Low	Bluetooth technology	Medium	high
Zhong Wan Weifeng Yin and Ronggao Sun	Online	High	high	low	multi-interface of mobile terminal	high	high
Nwankwo Prince .N. , Orji Mary .N. and Osuji Christopher .U	Online	Low	Medium	Medim	Short Message Service (SMS) technology	low	Medium
Günther and Bernd Borchert	online	high	Medium	high	Near field communication (NFC)	high	high
Peter K.Buchhop , Anne Bradford FYK and Krsto Sitar	online	high	low	low	- mobile channel and wireless terminal	medim	high

Other related project is design and implementation mobile payment based on multi-interface of mobile terminal the idea is implement a solution for mobile payment involving distributed key based on the current mobile multi-interface. By analyzing the workflow of mobile payment and reasons effect the security issues they discover that they need additional equipment to achieve the secret keys distributed strong to enhance the verification process and computing encryption capabilities in mobile terminal. To insure the security of wireless communication at the same time they use the J2ME security architecture using the encryption methods of data encryption, digital signature and identity authentication. The hardware design and software design of multi-interface data encryption equipment. And the some processes design of mobile client's software has been provided. This solution provides the high security and low cost of mobile payment, has good applied value and marketable foreground [1] [3].

The request includes the identification of the customer and it generated via Wireless terminal rather than the customer identification and his profile information mapped to his device type. When the customer is authorized directly an invitation message will be delivered to mobile communication channel type to the customer's device of the customer. The invitation message contains the contact information and requested information the contact information used to initiate the connection between the customer and business presenter. Otherwise the requested information only will send into the communication channel type to the customer's device [8].

## DISCUSSIONS

In this section we analyze the previous papers to explain their limitations and problems and add our own viewpoint considering the same sequence in the above table. The first one

must use enhanced type of memory to handle the previous transactions and thermal printer to execute the task of writing checks and get comprehensiveness. The second one has a powerful feature low energy consumption never the less the security system so complicated. In the third one they can set an authentication and service type distinguish imbedded with the micro machine without customer interference. The fourth one design which used the Bluetooth technology with maximum range from 10m to 100m so what if it connected by WIMAX technology. The fifth one get the highest level in security by using the J2ME Architecture but it will be enhanced if powered by android. The sixth one depend on SMS technology in spite of mobile web that make it low validation. The seventh use the NFC technology but not all of mobile phones have the it so we suggest a USB mobile banking APP as prosthetic solution for them. The eighth one considered efficacious application for requesting and responding aspect and it acceptable.

## **CONCLUSION**

From the papers reviewed and analyzed in this field, there has been a significant increase in mobile banking services designs appearing in peer-reviewed journals and even greater projects related to it presented in conference proceedings. Based on this evidence we need to sophisticate this field to present a service in reliable, useable, powerful and accurately way. So we chose the papers in diversity manner some papers considered the security issues and the other focused on execute the banking operations via the mobile phone and residue make the bank itself mobile.

## **Acknowledgement**

Great thanks for basmat ali Mohamed and we do appreciate her contribution in financial domain and without god pleasing and her this work will never achieved

## **References**

1. U. S. Pandey and Geetanjali, "Application of Mobile Banking Services in the Bank Area," February 25 – 26, 2010.
2. M.Karthika, A.Manimaran, N.Vanithadevi, "Portable Handheld Secured Electronic Bank to Home System," July – 2015.
3. Zhong Wan, Weifeng Yin, Ronggao Sun "Design and Implementation Mobile Payment Based on Multi-Interface of Mobile Terminal," January 2009.
4. Latoya H .JAMES, "Handheld electronic banking device," Aug 21, 2014.
5. Nwankwo Prince .N., Orji Mary .N. and Osuji Christopher .U, "Design and Implementation of Short Message Service (SMS) Banking System," *1, March 2013*.
6. Max Günther and Bernd Borchert, "Online Banking with NFC-enabled Bank Card and NFC-enabled Smartphone," 2013.
7. Anline Lizie.R and Mr. Y.Singston Albert Dhas, "Handheld Secured Electronic Doorstep Banking System," 2015.
8. Peter K.Buchhop, Anne Bradford FYK and Krsto Sitar, "Conditional establishment of a communications connection with a mobile terminal in response to a query from the mobile terminal," Feb 6, 2013.

\*\*\*\*\*

## **How to cite this article:**

Rayan anwar Mohamed alawad and Mohammed Abaker Hussin.2016, Mobile Banking Services. *Int J Recent Sci Res.* 7(5), pp. 11095-11097.

T.SSN 0976-3031



9 770976 303009 >