E-Banking Performance in Uganda: A Case Study of Bank of Uganda

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Abstract

Online or e-banking has been adopted as key banking innovation in Uganda adopted by all financial institutions in the country. This research explored the state of e-banking and its efficacy in Uganda banking industry. A correlation analysis approach was adopted for this research. In Uganda, the banking sector has been liberalized with telecommunications allowed to effect e-banking and ecommerce transactions. The study concentrated on the periods of years 2011/2012 and 2012/2013. Findings from this research revealed that BOU uses UNISS for real time gross settlement (RTGS). Since its adoption a +1 coefficient correlation was realized. With the use of mobile money, also a +1 coefficient correlation was achieved for the period under consideration. As regards the use of e-cheques, there was a drop reflected by -2.8 percent which could have been attributed to perception of the users, though there was a +1 coefficient correlation when considering e-cheque transactions and the monetary value. The use of EFT in Uganda generated a +1 coefficient correction considering the number of users and the monetary value involved. Bank of Uganda should work hard and make or go live with electronic banking supervision software which would aid them with their supervisory roles.

Keywords: E-banking, e-products, RTGS also called UNISS, Electronic clearing system, Electronic clearing system (ECS), local foreign currency clearing (LFCC), East African payment system (EAPS), regional payment and settlement system (REPSS), electronic funds transfer (EFT).

1. Introduction

A vibrant financial sector is vital for a country's economic growth. E-banking makes access to banking timeless and borderless and this is crucial in a globalized village. As argued by Frederic et al (2012), it is vital that population get financial literacy on the use of e-banking and its essence in facilitating business development and growth. In Uganda, e-banking is supervised by the central bank aka Bank of Uganda. The most important thing with e-banking is that once used safely, it eases banking by making it effective and efficient to the benefit of the consumers and banks as supported by Naveen and Sharma (2011).The success of e-banking in a country depends on the enabling infrastructure and laws put in place by both the government and the private players. Availability of reliable internet communication and other telecommunication network is vital for the success of e-banking facilitation Reginald et al. (2011). This study concentrated on assessing the state and the impact that e-banking has on economic growth of the sector and the country using Bank of Uganda (BOU) as a case study. The analysis was made by looking at the e-banking facilities provided by telecommunication companies in the country and all the traditional financial institutions.

2. Literature review

In a study on e-banking in developed countries by (Reza and Vala, 2011; Chen and Barnes, 2007), their findings revealed that e-banking simplifies banking and makes it cost effective for the banking institutions and the customers. It was also made clear from their findings that about 84 percent of account holders are transacting online though they are always aware of the risks that internet financial transactions can pause and so advocacy of safe online banking is what financial institutions have to invest in (Ziad et al., 2009; Frederic et al, 2012). Modern banking and supervision calls for adoption of technology which should work for the benefit of all stakeholders a notion that was reechoed by a research by Nadim and Noorjahan (2008) on 227 clients of Bangladesh banks which revealed that customers are willing to use e-banking services provided it is made safe and cost effective for the clients (Guriting and Ndubisi, 2006; Hernandez and Mazzon, 2007). For developing country like Uganda, the central bank could step in and make it mandatory for some financial transactions to be done using the click of a mouse as opposed to brick and mortar methodology.

Central bank of Uganda as a regulator of the banking industry in the country should try and urge banks to invest some resources in changing the mentality of customers as regards e-banking as this is what will make it positively impactful. According to a research by Ahasanul et al., (2009) on perception of Malysian bank customers on e-banking, it was clear from the findings that banks need to protect customers and this is what impacted positively on the customers and can encourage its adoption by many clients and this would also encourage e-commerce (Brodie et al., 2007; Gonza 1ezet al., 2008; Shamdasani et al., 2008). Commercial banks are always in business to make a profit and adoption of e-banking would do them best as long as it is not used to fleece customers of their hard earned incomes that are entrusted with banks. Reginald et al. (2011) did a study on adoption of e-banking by rural South African using and it was made clear from the findings that customers choice of a bank is influenced by the bank's ability to use technology in the bank, though it was a major findings that most customers would prefer traditional banking done on the counter with face to face with the bank cashier. The gap that exists between financial institutions and their clients as regards e-banking is that clients seem not to have enough sensitization and this is to say there is need for concerted efforts by the stakeholders in the field to channel a lot of resources into marketing their e-products and this is a good way for the practice to become acceptable by customers (Brady et al., 2008; WaiChing, 2008).

Countries that have developed and those still developing need to embrace technology and ensure banking transactions are done with a technological touch and Asian countries like Korea, India, Singapore, Thailand among other countries have been at the forefront of embracing e-banking and ecommerce in their economies and ATMs have been the most commonly used form of e-banking in most economies (SaidulHasan, et al., 2010; Adesina and Ayo (2010); Maiyaki and

Mokhtar, 2010; Salehi and Alipour, 2010). Government of Uganda through the central bank should encourage the use of technology based forms of banking like cellphone banking which has proved to do well in countries like South Africa with the big four banks of Nedbank, ABSA, Standard Bank and FNB (Richard, 2012). This kind of technology can function properly in a country like Uganda where the majority of the population owns a mobile phone. The statistics from the central bank of Uganda gives figures on mobile phone funds transaction as per table 2 which showed an upward growth trend from USD 361,600,000 in June 2012 to USD 560,000,000in year ending June 2013 reflecting an increase of 53.9 percent and having seen subscriber base increase from 5,662,871 to 12,117,821 registered users for the same period under consideration (Bank of Uganda, 2013). This situation shows that Ugandans have trust in money transfer using mobile money as efforts have been made to make it safer for instance all mobile phone users in the country are registered and there is a clear data base and any unscrupulous people who would want to use mobile money would be apprehended by the authorities and most importantly is the vigilance of the players in the mobile money business in the country that are championed by mobile company operators in the country like TIGO, MTN, UTL, WARID. Banks or any other player should endeavor to sensitize the masses for any e-banking product introduced as this would form a precursor for its success or failure in the industry as well said that for example cellphone banking has succeeded in South Africa due to sensitization of masses about the virtue of this technology (Mansfield, 2011;CIA, 2010; ITU, 2011; Richard, 2012).

3. Importance of study

E-banking is a blessing for the banking industry as customers get increased access to baking facilities at a cheap cost though it has its risks associated with transacting online like risk of internet fraudsters (Himani, 2011). It is not very

uncommon that a lot of people and institutions fear internet use, lack of knowledge on the use of computers by some banking stakeholders, lack of awareness and other factors may be a deterrent to internet adoption (Abukhzam and Lee, 2010). There is need for training to financial institutions and the e-banking users on the safety of transacting online.Due to the competition in the banking industry in Uganda, financial institutions should be looking for ways to win over many customers by reducing for instance the time lag of authorizing or giving credit reference from the central bank credit reference bureau about a customer that can be done contactless online as this improves service delivery (Frederic et al, 2012, Lin, 2010; Fuentes Blascoet al., 2010). According to a study by Virk (2013) on e-banking in India, it was realized from his findings that majority customers of banks are confortable transacting by click of mouse in their homes and workplaces and those uncomfortable acknowledged ignorance on the use of computers to effect financial transactions.

It is vital that the central bank of Uganda encourages commercial financial institutions to encourage its customers to adopt use of e-banking as it is done in most developed economies (Poonam et al, 2013). However the practice can be taken very seriously if the central bank leads by example by emphasizingfor example that all its dealings with commercial banks will be done cashless and online or using some form of electronic funds clearing system. According to Bank of Uganda (2013), the use of electronic facilities likes UNISS which has been adopted by most commercial banks in the country, Electronic clearing system (ECS), electronic clearing system, mobile money transfer among other e-banking innovations is the step in the right direction to achieving an efficient Uganda banking sector. Whereas e-banking is a good innovation in this rapidly changing economic village, it is prone to security issues that could be caused by cyber-attacks, lack of enabling laws, poor information and telecommunication infrastructure, loss of social status by some customers and many others that need to be addressed before e-banking can be safe for adoption (Reza and Vala, 2011; Lee, 2009). It was therefore crucial to do a study that could enable policy direction by the central bank and the government on how to affect electronic banking in the country for the good of the banking industry and the masses.

4. Statement of the problem

Banking industry has overtime shifted from the traditional way of banking through brick and mortar to a click on the computer to effect financial transaction and this is the spirit through which modern banking should be effected (Surekha et al, 2011). As the banking industry continues to grow in a country like Uganda, and as the number of bank transactions continues to increase, and so would be the regulatory burden and so the banking regulator (Yu-Lung et al, 2012). Such situations would call for the regulatory body which is the central bank to opt for financial electronic control techniques and this is where e-banking comes in handy to easy banking for the all the stakeholders in the sector. Using e-banking is about using computer technology which is a good revolution in the banking industry, however, it can only be possible if all the stakeholders are computer literate and having trust of online transactions (Naveen and Sharma, 2011). The central bank should have secure and reliable internet connections with all commercial financial institutions in the country and all its other partners since there will also be international bank transactions. Central bank of Uganda according to (Bank of Uganda, 2013) has been at the forefront of encouraging the use of e-banking in all its financial transaction by testing and or using systems like Bank of Uganda banking system (BBS), integrated financial management system, UNISS for real time gross settlement (RTGS), Electronic clearing system (ECS), local foreign currency clearing (LFCC), East African payment system (EAPS), COMESA regional payment and settlement system (REPSS). These have not all been successfully adopted for use and some have not been able to "go liveon the system". This research has been vital to assess the importance and efficacy of e-banking in fostering the performance of the banking sector in Uganda.

4.1 Research objectives
1. Assess the state of e-banking products by the central bank of Uganda.
2. Critically analyze the role of e-banking in making banking efficient in the country.

4.2 Hypothesis
1. Encouraging e-banking leads to efficiency in the banking industry
2. The use and adoption of e-banking may not necessarily improve performance of the banking industry.

5. Research methodology

This section reflects the art or design that was used in this research. The data used was from the National bank of Uganda (BOU). The data content covered electronic banking at the bank and it was for the period of two years ranging from year ending 2012 and for the year ending June 2013 respectively. The e-banking systems at the bank have been evolving overtime and it is during these periods that the bank was seen and very involved in the adoption and use of electronic banking techniques and models to have a vibrant banking system in Uganda (Bank of Uganda, 2013). Data used for this research was from the secondary data and mainly from the National Bank's publications about e-banking. The data obtained was analyzed to ensure that it reflects on the intended objectives of this research that was specifically about e-banking in Uganda using National bank as a case study. Data obtained was analyzed to find relationship between the available e-banking facilities available at the bank and how they are being utilized by the stakeholders in the banking sector both nationally and international. Correlation analysis approach was adopted for this research and it was preferred because of its strength as a tool in finding relationships between different variables. The variables in this study are the available e-banking facilities and services at the National bank versus the adoption or usage rate by the stakeholders. Relationships are analyzed based on the coefficient correlations of between +1 and -1 interpreted as a strong or weak relationship accordingly. A lot of emphasis was put on the quality of data that was obtained from the National Bank of Uganda to ensure its actuality and eventual reliability and validity of the findings that would easily be replicated and comparable with other research findings by other researchers in the field. Correlation co-efficiencies were calculated from the use of Microsoft Excel software that helped in their generation and it proved an effective tool during this research during that data analysis phase.

6. Research methodology

Research findings about the use of e-banking at National bank of Uganda reveal a success picture on different e-banking innovations especially on its bank supervision of the banking sector in the country and the way IT has been embraced in real time clearance of huge transactions, use of mobile money transactions among other initiatives and use of electronic bank supervision application in the country which it rolled out or made live during the financial year 2012/2013 (Bank of Uganda, 2013). Data was collected from secondary sources including past published reports on e-banking by BOU, and its websites. The data collected was time specific for two financial years ending 2012 and 2013. This was done to faster comparison on e-banking performance for the two periods. The central bank's use of RTGS also called UNISS especially for huge settlements is a success story on the bank's use of e-banking platforms. For instance according to Table 1, it is clear that due to use of UNISS, the number of RTGS transactions increased from 476,411 in the year ending 2011/2012 to 495,388 reflecting a percentage change of 4 percent and the value in monetary terms changed from USD 61,280,000 to USD 78,240,000 for the same period under consideration which is also a percentage change of 28 percent and reflects a correlation coefficient of +1 and this shows a strong relationship between variables. It also means that as the volume of e-banking transaction increases, and then also the money value involved would also increase. This also gives a reflection that as long as e-banking facility is acceptable by the users, then its adoption becomes realistic as in this case at the central bank. The UNISS system has been a formidable tool for settlement of multicurrency payments and settlements in EUR, USD, GBP, UGX, KSH and TZS as reflected in Table 1 and has a correlation coefficient of +0.9988 where one would argue that, the strength of the currency has reflection on the number of transactions and the values involved and as for instance it can be seen that USD as a dominant currency has more RTGS transactions and value involved followed by the EURO, GBP and KES which is a weaker currency of the four.

Table 1: Performance of RTGS in the two years of 2011/2012 and 2012/2013

	2012/2013	2011/2012	change
Transactions	495,388	476,411	4%
Value	USD 78,240,000	USD 61,280,000	28%
Level of activity on RTGS in various currencies as of year ending June 2013			
Currency	Volume of Transactions	Value (USD)	
EURO	1,518	26,520	
GBP	451	1,840	
KES	60	69,280	
USD	56,828	1,600,000	

Source: Bank of Uganda and Author, 2014

The Liberalization of the financial sector in Uganda has also seen new upcoming banking forms through the use of mobile money a service that is provided by telecommunication companies in the country. According to statistics obtained during the study shown in Table 2, mobile money registered use increased from 5,662,871 by June 2012 to 12,117,821 by year end June 2013 involving financial transactions valued at USD 361,600,000 growing to USD 560,000,000 for the years under consideration accordingly and has a correlation coefficient of +1 indicating that as the number of registered users increase, and so will the value involved as reflected in Table 2. This growth in mobile money service by 53.9 percent shows that people in the country trust the facility and the regulation by the central bank has made it safe and trusted and this is what is needed for all e-banking facilities as for now, some bank clients do not seem to trust banking online and they would prefer branch banking involving face to face with cashier. This kind of banking in most cases slows down service delivery and should be discouraged by banking institutions and they should therefore lobby the central bank to allow them introduction of safe online banking services. There is need for clear legislation of e-banking in the country. Once the e-banking laws are clear, and it is made safe for use, then it is more likely to be acceptable by users and this will improve banking efficiency and effectiveness and this will eventually drive down costs to the benefit of bank customers.

Table 2: Electronic clearing system and Mobile Money statistics

Cheques	2012/2013	2011/2012
Transactions (Millions)	1.4	1.4
Value (USD)	USD 2,388,000,000	USD 2,440,000,000
EFT		
Transactions	7.1	6.6
Value	USD 4,440,000,000	USD 4,080,000,000
Mobile Money statistics		
	June 2013	June 2012
Registered users	12,117,821	5,662,871
Value (USD)	560,000,000	361,600,000

Source: Bank of Uganda and Author(2014).

Analysis of electronic clearing system at the central bank of Uganda shows that for the years ending June 2012 and June 2013, the number of electronic cheque clearing transactions remained the same 1.4 million though the value involved dropped from USD 2,440,000,000 to USD 2,388,000,000 for the periods under consideration as shown in Table 2. This is a drop by -2.3 percent which could be caused by the perception of the customers about e-cheques and again it could be due to lack of awareness and adoption of electronic cheque clearing system, this situation could be reversed as long as the stakeholders to the system get to understand the benefits of this facility and if possible, it should first be made free to users and if any fee, this can be introduced later as the system gets mass acceptance in the country. However, the correlation coefficient is + 1 reflecting a strong relationship between e-cheque transactions and the monetary value involved and since the number of users for the two periods under consideration, there was not any significant change in the business realizations. Use of electronic funds transfer (EFT) reflects a positive change as per the statistics collected showing that for the year ending June 2012, there were 6,600,000 transactions which had increased to 7,100,000 for the year ending June 2013 which reflects increased acceptance by the users. For the same period, the value realized is USD 4,080,000,000, and USD 4,440,000,000 respectively which reflects an 8.1 percentage change and such a trend is good once sustained and the correlation coefficient was also +1 indicating a strong relationship between the number of EFT transactions and the value involved as shown in table 2 above. Bank customers need education or sensitization on online banking delivery. They need to be made to appreciate that online banking is safer and cheaper than branch banking. Financial institutions and concerned stakeholders need to set aside some budget funds for this activity and once this is done successfully, it can also help the country in realization of completely cashless society in Uganda. This would make banking in Uganda appreciated, superior in the region and globally competitive.

7. Conclusion and recommendations

Bank of Uganda has been steady fast in the general management and supervision of Uganda banking sector and this would be made much better if the bank was to conduct its supervisory role to commercial banks using electronic application. From the study findings, it was clear that central bank of Uganda has designed an electronic bank supervision application for commercial banks and after successfully test; it went live in the year 2012/2013. The

bank has been at the forefront of encouraging the use of ICT to easy banking in the country and commercial banks have been quick to embrace the electronic banking platforms and introduction of banking products that suit their customers. Clearly for the period that was under consideration during this research of 2011/2012 to 2012/2013, the central bank was able to go live with a number of e-banking products namely UNISS also called RTGS, Electronic clearing system and Mobile Money highly embraced by telecommunication companies that have put banking on mobile phone cheaply (Bank of Uganda, 2014). E-banking is the buzz word in Uganda and once used properly, it is cheap to do banking online and using mobile telecommunication gadgets. However, what the central bank needs to do is to make it safer for bank customers by lobbying for enabling legislation that highly protects consumers of such bank online services. A reflection of correlation coefficient of +0.9988 on the use of RTGS by bank of Uganda is an indication that once proper e-banking products are introduced, this eases doing business and offering better services to the banking community. As regards specifically the use of e-checks, this is a new service in Uganda and is not properly understood by the banking community and hence the results from the analysis showed that for the periods of 2011/2012 and 2012/2013, the transactions remained static at 1.4 million and instead, there was a -2.3 percent in USD value. It would create good impact if the central bank and the players in the banking sector would intensify education of the virtue of using e-checks in ease of banking in the country. Clearly, the use of e-banking by bank of Uganda has had positive impact on its operations and its continued use would even make the operations much better and it should be highly used in its operations with the government since one of its roles is to be a banker to government.

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