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Internet Banking Development as A Means of Providing Efficient Financial Services in South Sudan

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Abstract:

This study aims to understand internet users' perspectives on Internet banking, their experience with Internet banking, and their expectations of Internet banking services. It would also examine why many are not using internet banking services despite the fact that most banks are digital as a means of providing financial services in an efficient way.

The study is going to find out the security implications of using internet banking in comparison to manual banking. Banking institutions' security measures in place to safeguard online transactions where risk is expected to be high when security layers are insufficient to protect customers from financial loss.

Internet banking, according to this study, is the use of financial services on the internet using the web browser on a specific app on a mobile or computer.

Internet banking is helpful so that it minimizes the time spent in queuing to do cash transfers at physical branches and to check balances as well.

The study is also going to discuss the advantages and disadvantages of dealing with online branches versus physical branches.

Index Terms—internet banking development, financial services, browser, mobile, security measures

Introduction

Internet banking, or net banking, is a facility that enables you to conduct various banking transactions using an internet-enabled device like a computer or smartphone. It is a one-stop online solution to all modern banking needs, ranging from fund transfers, checking account balances and statements, ordering cheque books and bank cards, and investing in investment market securities. With internet banking, you can access almost all banking services from the comfort of your home without visiting your bank branch. (https://www.dbs.com/digibank/in/articles/save/what-is-internet-banking).

South Sudan, the world's youngest nation, got independence from Sudan in July 2011 as a result of a public referendum which granted the rights of South Sudanese to vote for the separation of Southern Sudan from the Northern, Western, Central, and Eastern Sudan.

The country has a history of operating traditional banks established by Sudan during the war, with none of them using internet banking until 2005, when a comprehensive Peace Agreement

(CPA) was signed by the warring parties, the National Congress Party and the Sudan People's Liberation Movement.

Regional banks from the neighboring countries came to operate in Juba and started banking services using computers whereby balances, cash withdrawals, cash deposits, and transfers are done by bank tellers using computers instead of ledger books.

Prior to independence and two years later, before the civil war broke out, more banks were established.

As of today, South Sudan has over 28 banks operating in the country, some of which are the most advanced ones in terms of banking services and technology are from foreign countries.

In South Sudan, bank customers are able to withdraw cash from ATMs instead of going to bank tellers. However, due to internet connectivity, most of the ATM machines are not reliable. The number of individuals using the Internet (% of the population) was 7. (World Bank, 2020).

When we talk about internet banking, we are referring to the above definition in which a bank provides electronic banking to customers over the internet.

In all the ATM machines operated by the banks, customers are not able to deposit cash using debit or ATM cards. They are also not able to exchange hard currencies and local currency using the ATM machines or internet banking.

The number of automated teller machines (ATMs) (per 100,000 adults) was at a level of 0.7 per 100,000 adults in 2020, up from 0.67 per 100,000 adults the previous year. This is a change of 4.48% (World Bank, 2020).

This shows that internet banking services are not widely used in South Sudan since they're not well developed as well as its connection to internet providers. The country is trying to catch up with the rest of the world in terms of physical infrastructure, in which technology advancement is not an exception.

Currently, the government does not own any institutions that provide internet access to the public. The most widely used internet for communication is from mobile network companies, which is very expensive to use when war starts. Most financial institutions are using satellite internet, which also costs them a lot due to a lack of good connectivity with mobile network internet.

The recent research conducted shows that 13 out of 30 banks have internet banking according to respondents.

Chart 1. Showing the bank with and with not internet banking services in South Sudan

	Internet Banking
Yes	13
No	17

Yes No
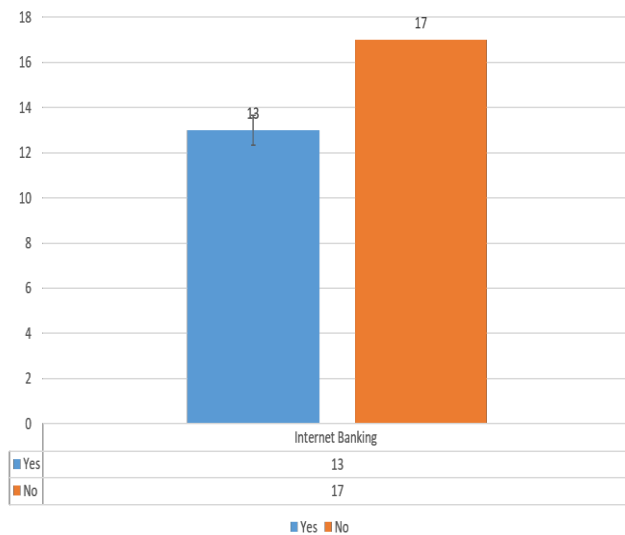
Why are so many not using internet banking?

Many respondents said that they were afraid of the risk associated with online banking; the major fear is that any mistake by the user or the bank involves a huge loss in financial benefits.

Some also stressed that due to poor internet connection, there is a big vulnerability to internet banking services, which makes it hard for them to use it well.

Another issue was that most are not familiar with the bank security measures in regards to compensation for the loss incurred regardless of whose mistake allowed the cyber-attack.

The historical development of Internet Banking

Internet Banking in the World: Internet banking first appeared through telephone banking in the 1980s, and it grew as the internet was used at home (Cartwright, 2000). During these years, banking and finance firms in Europe and the United States began to develop the concept of "home banking."Due to the fact that computers and the internet were not common previously, it was directed to telephone banking (Sarel and Marmorstein, 2003). The first internet banking application was started in the U.S.A in 1996, and then, eminent banks such as Citibank and Wells Fargo started to provide this service to their customers in 2001 (Gefen and Straub, 2005). On the other hand, in Singapore, DPS bank started to offer internet banking services in 1997. This bank was followed by the UOB and OCBC (Gerrard et al., 2006). Such activities had started in Turkey based on the technological developments of the 1990s, in parallel to the developments in the world (Pala and Kartal, 2010).

The Benefits of Internet Banking

From a customer's point of view, Internet banking has several advantages. Here are a few benefits:

24/7 account access. Better access to bank records. improved visibility of account balances and transactions. The ability to sync your accounts with your apps. use of mobile apps. Check balances on accounts and view records of your transactions. Pay bills automatically each month with an easy-to-set-up auto payment. Transfer funds between accounts. Download or print statements for your tax or personal records. Cost and time saving in terms of distance and usage of fuel or paying for transport to go to the bank. A customer is able to purchase and sell on the money markets without going to the bank to withdraw funds for payment.

Internet banking: disadvantages

Well, Internet banking, along with its advantages, also has some of its drawbacks to share. (Ishita Bhatt, 2022).

There are no personal relationships.

A traditional bank allows you to get to know the employees at your local location. This can be beneficial if you require additional financial services, such as a loan, or if you need to change your banking arrangements.

A bank manager usually has some flexibility in changing the terms of your account or reversing a mandatory fee or service charge if your personal circumstances change.

Transactions have less flexibility.

When you meet with a banker in person, it's not just about getting to know you and your money. Going to a bank branch can be extremely useful for certain transactions and issues. Consider the most fundamental of banking transactions: depositing funds.

A direct bank can deposit a check by capturing both the front and back of the check using its banking app. Many internet banks, on the other hand, make depositing funds extremely difficult.

It's worth reviewing the bank's policy if this is something you'll be doing regularly. International transactions may be made more difficult, if not impossible, by some direct banks.

No ATM services of their own.

Since online bankers don't have their own ATMs, online banking relies on clients using one or more ATM networks, such as AllPoint and Cirrus.

While these systems provide access to tens of thousands of machines around the country—and even the world—it's worth looking into the devices that are available near your home or workplace.

Pay attention to any ATM fees you may have racked up. While many direct banks offer free network ATM access or will reimburse any monthly expenses you incur, the number of free ATM transactions you can conduct each month may be limited.

Services are becoming more limited.

Some direct banks may not provide all of the typical banks' financial services, such as insurance and brokerage accounts. Traditional banks may provide unique benefits to loyal customers, such as preferential rates and free financial advice.

Furthermore, common services like notarization and bank signature assurance are not available online. Many financial and legal transactions necessitate the use of these services.

A Literature Review

Online banking was first introduced in the early 1980s (Kalakota and Whinston, 1997), in which consumers were provided with an application software program that operates on a personal computer (PC), which can be dialed into the bank via a modem or telephone line and operate the programs remotely on the consumer PC.

However, the lack of Internet users and the costs associated with using online banking stunted its growth. It was only in the late 1990s that Internet banking really caught on, as the Internet explosion had made consumers more comfortable with making transactions over the web.

During the dotcom fallout, it became apparent that Internet banking was not the panacea banks had thought it to be. Between 2001 and 2004, Internet banking investment growth experienced a significant slowdown. Nonetheless, from 2000 to 2005, the customer base for Internet Banking grew steadily (Accenture, 2005).

Thulani et al. (2009), Yibin (2003), and Diniz (1998) identify three functional types of Internet banking that are currently employed in the market place, i.e., informational, communicated, and transactional.

Informational: This is the basic level of Internet banking. Typically, the bank has marketing information about the bank's products and services on a stand-alone server.

Communicative: This type of Internet Banking system allows some interaction between the bank's systems and the customer. The interaction may be limited to electronic mail, account inquiries, loan applications or static file updates (name and address changes).

Transactional: This level of Internet Banking allows customers to directly execute financial transactions. The basic transactional site only allows the transfer of funds between the accounts of one customer and the bank.

The advanced transactional site provides a means for generating payments directly to third parties outside of the bank. This can take the form of bill payments via a bank official check or electronic funds transfer/automated clearing house entries.

(Hua, 2009). By offering Internet banking services, traditional financial institutions seek to lower operational costs, improve consumer banking services, retain consumers and expand their share of customers.

The Internet is the cheapest delivery channel for banking products as it allows the entity to reduce their branch networks and downsize the number of service staff. The navigability of the website is a very important part of Internet banking because it can become one of the biggest competitive advantages of a financial entity (Ortega et al., 2007). Internet Banking is a process of innovation whereby customers handle their own banking transactions without visiting bank tellers (Qureshi et al., 2008).

Recent evidence suggests that an Internet-based consumer banking strategy may be effective, with reports of more profitable, loyal, and committed consumers compared with traditional banking consumers (ABA, 2004; Fox, 2005).

Thus, contemporary banks now regard the Internet channel as equally important to traditional channels of branches, automated teller machines (ATM), telephone banking, and call centers (Gartner, 2003). In the new 13-banking environment, Internet banking is increasingly managed as an operational activity and an important element of a multi-channel strategy (Black et al., 2002).

Internet banking: security implications

When security measures are not in place and are not regularly revised and updated, any electronic banking is at risk. Nathan Daniels (vpnoverview.com, Jan 2022) narrated some possible risks for online banking.

Malware

Some cybercriminals use malware to break into your smartphone, computer, or other device. This way, they could potentially steal your banking details or even transfer money out of your account. For example, cybercriminals could use spyware to spy on your computer and read the personal files you created to keep track of your passwords. (This is one of many reasons to never have such a document on your computer!). Cybercriminals could also use a keylogger to steal your login details as you are typing them. In the worst-case scenario, they might even infect your device with a computer virus so they can take over your computer completely and, in your name, transfer your money right into their account.

Although not directly related to online banking, ransomware has also proven to be a serious problem. Ransomware is a type of malware that essentially incapacitates your computer by taking all your files "hostage" until you meet the demands of the malware distributor. Usually, this means paying a sum of money to the cybercriminals involved.

The dangers described above could come with huge financial implications. That is why it is important to be vigilant. Always look out for possible malware and never click on a link you do not trust. This is especially the case when downloading files. Hiding malicious programs in downloads is a common way for cybercriminals to infect your system with dangerous malware.

Phishing

Password Phishing Fishhook Phishing is a serious problem that could potentially cost you a lot of money. According to Microsoft's security team, phishing has now become by far the most frequent cybercrime threat. The company's 2019 Security Intelligence Report shows a 250% increase in phishing attacks compared to the previous report (from 2018).

In a phishing attack, a criminal attempt to obtain someone's personal details or sensitive information by pretending to be a party this person trusts, such as a bank. The victim will be contacted by this impostor and asked to give sensitive information. Cybercriminals might send you an email that looks as if it has been sent by your bank, asking you for your login information. They could also call you or send a text message. Most often, they will include a plausible-sounding reason as to why they need certain information. Nonetheless, do not fall for this ruse!

It is highly unlikely your bank will ask you for your login details, pin codes, or other confidential information. Sometimes a representative or customer support agent of your bank might ask you for some personal information, such as your date of birth. However, this is only for verification purposes and only happens when you contact them with a question or request.

Your bank is probably a large organization that has strict rules on privacy and security. This is why, if you lose your password, you will be sent instructions to create a new one or a document containing a new (temporary) password. This is much safer than keeping your sensitive information on file or contacting you about sensitive details.

In short, if someone claims to be a bank representative and asks you for sensitive details, do not comply. Contact your bank via an email or phone number you trust and ask whether the request indeed came from them. Most likely, they will not know anything about this request: somebody tried to "phish" you.

How to prevent threats

Two-factor authentication (2FA) is the most effective method for countering phishing attacks, as it adds an extra verification layer when logging in to sensitive applications. 2FA relies on users having two things: something they know, such as a password and user name, and something they have, such as their smartphones. Even when employees are compromised, 2FA prevents the use of their compromised credentials, since these alone are insufficient to gain entry.

In addition to using 2FA, organizations should enforce strict password management policies. For example, employees should be required to frequently change their passwords and should not be allowed to reuse a password for multiple applications.

Educational campaigns can also help diminish the threat of phishing attacks by enforcing secure practices such as not clicking on external email links.

Protective tools and user vigilance are actually two areas to consider where protection is concerned. The first is often the easiest to implement, simply because you can often set and forget best-in-class protective software that manages and updates itself. Users, on the other hand, can be prone to temptation ("check out this cool website!") or easily led by other emotions such as fear ("install this antivirus software immediately"). Education is key to ensuring users are aware of the risk of malware and what they can do to prevent an attack.

With good user policies in place and the right anti-malware solutions constantly monitoring the network, email, web requests, and other activities that could put your organization at risk, malware stands less of a chance of delivering its payload. Force point's Advanced Malware Detection offers best-in-class malware protection across multiple channels and is unmatched in security efficacy.

Recommendations

Banks in South Sudan should find effective ways of communicating with potential customers and explain to them their measures in regards to internet banking with the assurance of safe transactions online.

Customers should be given tools and some apps for download that might help them to conduct secure transactions.

Bank marketing departments should market internet banking as a product so that all bank customers are interested in enrolling and gaining access to convenience in transacting with banks.

Conclusion

As mentioned earlier, the country should work on the internet connectivity issue by ensuring that the government and the mobile network companies provide reliable internet connection. Subscriptions to internet bundles should be cost-effective so that customers of different banks would subscribe and use their computers or mobile apps for financial transactions over the internet.

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