

Impact of Technology on E-Banking; Cameroon Perspectives

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ABSTRACT

The financial services industry is experiencing rapid changes in services delivery and channels usage, and financial companies and users of financial services are looking at new technologies as they emerge and deciding whether or not to embrace them and the new opportunities to save and manage enormous time, cost and stress. There is no doubt about the favourable and manifold impact of technology on e-banking as pictured in this review paper, almost all banks are with the least and most access e-banking Technological equipments like ATMs and Cards. On the other Hand cheap and readily available technology has opened a favourable competition in e-banking services business with a lot of wide range competitors competing with Commercial Banks in Cameroon in providing digital financial services.

Keywords - E-Banking, E-Banking Services, Information Technology, Technology

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1. INTRODUCTION

Electronic banking (E-Banking) is the provision of banking services through electronic and the customer can access the data without any time and geographical limitation (Sagar, 2014) [1] and (Abu-Shanab and Matalqa, 2015) [2]. E-Banking provides easy access to banking services to customers. Since the late 1980s digitalization in communication and information technology has triggered significant social and economic changes worldwide. It has created a situation in which information, communication and commerce are no longer subject to the constraints of time and geographical space. They can be accessed 24/7, instantaneously and at the global level. To distinguish the concepts, products and services related to digital communication and information technology from their non-digital counterparts, prefixes and adjectives, such as “e” (e.g. e-mail, e-commerce, e-book, e-banking, e-crimes), “i” (e.g. iPhone, iTunes, iPad), virtual (e.g. virtual reality, virtual currency, virtual banking) are being used. We are living in an age of rapid change and that change is driven mostly if not entirely by technology. The world today is virtually unrecognizable from the world of even 25 years ago. The internet has changed the way we communicate, the way we shop, the way we learn, the way we bank, the way we market goods, the way we buy, the way we do business, the way we listen to music, the way we store information – in short the way we live. It has become possible to exchange information instantaneously with almost anyone, anywhere, anytime. In response to this level and speed of change, standing still is not an option. We have seen the impact on businesses that adapt and those which don't. For example, the technical revolution hit the taxi industry when mobile app technology allowed people with a vehicle and free time to offer taxi services. Technical disruption is also changing the car industry as IT

visionaries have set out to develop cars that can self-park and self-drive using electrical engines and tablet technology. Companies that shy away from technological changes and do not adapt to the new digital environment risk falling by the wayside (Auta, 2010, Chavan, 2013 and Devlin 1995) [18, 22, and 23]. The financial industry is also experiencing these changes and financial companies are looking at new technologies as they emerge and deciding whether or not to embrace them and the new opportunities they provide. One of the most recent technological developments that holds potential for the financial industry is distributed ledger technology, or DLT. This article looks on the impact of Technology on E-Banking as viewed in Cameroon.

1.1 E-banking in Contextual Terms

Internet Banking, Mobile Banking or Home Banking are modern banking instruments, intended to the banks' customers, natural or legal juristic persons, for the payment of bills, accomplishment of transfers, money transfer from an account to an another and so on. The Internet-banking can be used from any computer connected to Internet, no matter where it is. Practically, in the most of cases, the user of this service doesn't need to have his own computer, an I-Cafe being useful for him. There are the same operations as for E-banking: transmission of payment orders, transfers, exchange, view of the accounts' situation etc. Banks started to jump over the primary stage of E-banking, directly to Internet Banking. The E-banking services subsist from more than 20 years. The rapid spread of Internet banking all over the world is as a result of its acceptance as an extremely cost effective delivery channel of banking services as compared to other existing channels. However, internet is not an unmixed blessing to the banking sector. Along with reduction in cost of transactions, it has also brought about

a new orientation to risks and even new forms of risks to which banks conducting e-banking are exposed to (Solanki, 2012) [3]. Regulators and supervisors all over the world are concerned and in order for banks to remain efficient and cost effective, they must be conscious of different types of risks this form of banking entails and have systems or technology in place to manage the risk. An important and distinctive feature is that technology plays a significant part both as source and tool for control of risks. Because of rapid changes in information technology, there is no finality either in the types of risks or their control measures. While e-banking can be described as the “umbrella” term, it is used interchangeably when people refer to one or more forms or components of e-banking such as: Virtual banking, on-line banking, cyber-banking, net-banking, interactive-banking, web-banking, phone-banking, PC-banking, and remote electronic banking

1.2 History and Evaluation of E-Banking

E-banking business model started back in the 1980's, (Shannak, 2013)[4] and it evolved through four main phases that can be summarized as follows:

i) The Eighties: The early beginning on Modern e-banking first appeared in New York in the early 1980's, where it was offered by major banks in that city, such as Citibank and Chase Manhattan. The United Kingdom banks started to adopt the concept in 1983 where the Bank of Scotland was the first to introduce it. Back then it required a computer terminal, a monitor, and a telephone line. It was also offered through a numeric keypad on a telephone enabling sending messages to the bank. The early services were very basic ones such as viewing your bank statements and paying your bills online. It was not a full transaction banking service; however, it paved the way for the more comprehensive and sophisticated e-banking services that we see today (Shannak, 2013) [4].

ii) The Nineties: Modern Internet Banking In the 1990's, the use of internet evolved when more people owned computers and were connected to the dial-up home internet. The first bank to offer the most comprehensive e-Banking services was the Stanford Federal Credit Union bank in 1994. This technological evolution and the spread of home internet usage meant customers enjoyed 24/7 e-Banking services. On the other hand, many customers during the 1990's didn't trust the concept enough to make serious and substantial monetary transactions and did not think the internet banking is safe enough. This triggered a massive effort and investment by the offering banks to develop more security features for their online banking services and promoting them in the market (Shannak, 2013) [4].

iii) The 2000's: The growth and acceptance the first bank to reach three million online banking customers was the Bank of America in 2001. Throughout the 2000's on-line banking started to grow and become more acceptable

by customers. It covered most of the banking services range. We also had our first “on-line only” banking firms that offered better interest rates and more features to their clients taking advantage of the cost savings achieved by the “Digital Firm” business model (Shannak, 2013) [4].

iv) The 2010's: The emergence of online Banking Models: In this phase online banks and banking firms emerge and virtual money or digital banking or money with bit coin and other virtual currencies, transactions and banking gaining grounds in the world including Africa and Cameroon. Also a notable achievement in the phase is that some banks start offering e-loans typically in Turkey and in the USA.

1.3 Evolution of E- Banking in Cameroon

Though e-banking started in the eighties, the first sign of e-banking services in Cameroon started in the early 2000s despite the ongoing usage of electronic funds transfers mode like the SWIFT to effect international transfers in the nineties by international banks and some domestic owed banks. In the early 2000s Standard Chartered Bank Cameroon started offering premium services banking to financially rich and able firms like CAA (Caisse Autonome Amortissement) and a good number of International NGOs and Embassies. This service was offered with the help of a dedicated service fixed telephone line where customers can call and inquire the situation and balances of their accounts and whether some particular deposits or cheques have been paid. The service also permitted for banking transaction forms to be picked up, and thereafter process the transactions. Not long from then with the growth and general acceptance of internet a good number of banks started taking advantage of it and start offering a limited range of e-banking services in between 2007 to 2010 with banks like United Bank for Africa (UBA), ECOBANK Cameroon, SGC, Standard Chartered Bank, and BICEC. The main services offered by these banks were e-alerts of account transactions (withdrawals, deposits and account balances) on mobile phones and emails. Later there was the gradual introduction of ATMs and cards particularly debit cards with one or two banks offering Credit cards. Also around this period an electronic clearing system called SYSTAC and SIGMA was introduced and put into usage by the Central Bank and in 2007 mobile money services emerged with MTN Cameroon, a South African owned mobile telecommunication company leading the race.

In 2010's with the emergence of mobile money services and a host lot of international and local money transfers like Western Union and Moneygram with other domestic firms and bank owed services, a good number of commercial banks start to rollout ATMs and broaden the scope of e-banking services they offer. Now almost all the 14 commercial banks in Cameroon have ATMs and offer e-banking services. Now virtual and digital banking firms and individual co-exist in the e-banking services

niche alongside mobile firms, Microfinance Institutions and some specialised firms.

1.4 Reasons for the Evolution of E-Banking

One survey conducted by the TechWeb News in 2005 (TechWeb News, 2005) [14] found e-banking to be the fastest growing commercial activity on the Internet. In its survey of Internet users, it found that 13 million Americans carry out some banking activity online on a typical day, a 58 percent jump from late 2002. The reasons for the rapid evolution of e-banking include;

i) Financial deregulation: Following the wave of deregulation and harmonization of financial services sector laws in the world to better served customers, modern financial services become available and inclusive to a good categories of users.

ii) Increasingly important role of information and communication technologies: Technology and ICT have cause the world to change drastically and banking firms and financial services providers have taken advantage of time to offer services that are not time and space bound.

iii) Competition and banks and firms survival: competition and survival are change drivers. In modern age e-banking provides the opportunity for banks to broaden and expand their fees and services income if they hope to survive competition from numerous financial services competitors.

iv) Availability and low cost of internet: The bursting of the Internet bubble in early 2001 caused speculation that the opportunities for Internet services firms had vanished. On the other hand banking services that were time and space bound could now be offer with the help of available internet.

v) Acceptance of electronic banking transactions: The bursting of the Internet bubble in early 2001 caused speculation that the opportunities for Internet services firms had vanished as people in particular in some developing countries as a scam. Now with the generally acceptance of electronic banking transaction, trust and confidence has increase while confidentiality and privacy have prompted a good number of people to prefer e-banking to traditionally contact banking (face to face banking).

vi) Increase internet, mobile phones and computer users population: Nearly every (if not all if age permit) persons in the world have access to either internet, mobile phones or a computer. Thus the availability of these equipments make e-banking accessible at all times without geographical limitation.

vii) The enormous benefits of e-banking: despite the associated risks involved in e-banking, the enormous benefits of e-banking ;- time and cost savings have pave

away for the wild, rapid growth of e-banking and its adaptation (Chavan, 2013 and Edet, 2008) [22 and 24].

viii) The level of literacy: education levels have increase all round in the world with most youths becoming quite adventurous couple with the fact that the old and less adventurous population notably in Europe are aging.

ix) Industry benefits: e-banking has saved a lot of labour cost to commercial banks that have the technological lead, knowhow and advantage. ECOBANK Cameroon in late 2017 closed down a good number of its branches and sacked staff that were performing jobs that their newly introduced ECOBANK Mobile App can do for and by the customers themselves. E-banking also help both bank staff and customers to acquaint themselves with new technological skills and have a stress free life (Chavan, 2013) [22].

2. AVAILABLE TECHNOLOGY USED IN E-BANKING

Generally e-banking history and evolution has been based on the available technology for financial players to make use of. Nso (2016) [5] points that the world of tele communication technology has products that are yet to be discovered. E-banking technological instruments revolution started with fixed telephones to ATMs and cards to Internet (emails) to Personal computers (pcs) to laptops to mobile phones to i-instruments (i-Pads, iPhone etc.), to websites, to television and finally to block chain technology such as distributed ledger technology(ECB, 2016) [6]. Below is the discussion of the various technologies used in e-banking;

i) Distributed ledger technology: A distributed ledger is essentially a record of information, or database that is shared across a network (ECB, 2016) [6]. It may be an open, publicly accessible database or access may be restricted to a specified group of users. From a technical perspective it can be used, for example, to record transactions across different locations. The technology that makes this possible is often referred to as "block chain". The name comes from the fact that some DLT solutions store all individual transactions in groups, or blocks, which are attached to each other in chronological order to create a long chain. This long chain is put together using a mathematical formula – complex cryptography – which ensures the security and integrity of the data. This chain then forms a register of transactions that its users consider to be the official record. In addition to block chains, consensus ledgers are another type of DLT whereby, instead of grouping and chaining transactions, only the balance of members' accounts is updated after each validation round. Who can be member of a network depends on whether the ledger is a restricted or unrestricted ledger. In unrestricted ledgers, anyone can become a member, whereas in restricted ledgers, membership is limited. In both types, each member in the

network may have access either to the entire ledger or only to part of it and in all cases can contribute with data.

ii) SWIFT: SWIFT stands for Society for Worldwide Interbank Financial Telecommunication and mainly it is important for international fund transfer through electronic messaging system which offers banks to exchange data. Financial data like account debit, account credit, data regarding money transfer and account status can be easily exchanged in banks. SWIFT Codes are unique for every bank and they are standard format of The Bank Identifier Codes (BIC). The SWIFT Code comprised of 8-11 alphanumeric characters. International Organization of Standardization (IOS) was the authoritative body that approved the creation of SWIFT codes.

iii) Phones: Phones have evolved from fixed to mobile and to iPhone. Through a sim card that reads a telephone number or line and or internet connection banking services are offered and access electronically between clients and banks. Some mobile phones have the ability to accommodate pdf and scan apps and are capable of connecting to a fax / printer machine, with an assemble of these equipments banking services are conducted virtually to any desirable extend (Abu-Shanab. & Haddad, 2015) [15].

iv) Faxes: Although today's version of fax technology was invented at about the same time as email, the fax machine is a piece of technology that has moved towards being obsolete much quicker. In many cases, people have forgotten or no longer use a fax machine regularly, and therefore need a reminder. Note that a fax machine (or a printer / multi-function unit with fax) *will need an operational land-line phone line* for it to work. Users who are trying to use a fax machine without a phone line could only do so with the help of internet connection and a computer or a mobile phone. With the help of this technological equipment banking services would be offer electronically.

v) Internet and Web: The Internet is a global system of interconnected computer networks that use the standard Internet Protocol Suite (TCP/IP) to serve billions of users worldwide. It is a network of networks that consists of millions of private, public academic, business, and government networks. The World Wide Web, abbreviated as WWW, commonly known as the Web, is a system of interlinked hypertext documents accessed via the Internet. With a web browser, one can view web pages that may contain text, images, videos, and other multimedia (Tunmibi and Falayi, 2013) [7] and navigate between them via hyperlinks. As such with the help of internet and web customers can access banking services, send financial information and documents electronically.

vi) ATM and Cards: EMV stands for Europay, MasterCard and Visa, a global standard for chip cards and chip card capable POS terminals and automated teller machines (ATMs) for authenticating credit and debit card

transactions (Abu-Shanab., Pearson, & Setterstrom 2010) [16].

vii) Banking Software's: Most and current banking software's are web and e-banking services enabled and compatible to facilitate e-payments, e-transfers and e-collect. Software's that facilitates e-collection could be used for electronic clearing and settlement between commercial banks and the central bank. Technology has helped the central bank in Cameroon and CEMAC to introduce and maintain a central electronic clearing and payment system called SYSTAC and SIGMA and now the newly introduce SPECTRA. This help commercial banks in Cameroon to process customers' transfers and interbank cheques electronically.

viii) Point of Sale (POS) Terminals: POS terminals and automated teller machines (ATMs) for authenticating credit and debit card transactions Ayodele (2015) [8].

ix) Backend systems: Banking is a complex business and the ICT systems supporting it are becoming increasingly complex. These backend or so called core systems can be divided in several sub-categories and this section will cover some of the most common banking related systems;

x) Product applications: Most banks have several different computer applications for their products. In most cases these systems were developed decades ago so they are often labelled 'Legacy Systems'. There are many problems associated with such systems such as difficulties in integrating them with each other and with newer systems, inflexibility in terms of expansion or scaling down, and rising costs of maintenance.

xi) Data Warehousing: Information has always been a cornerstone of good business decision making. Its importance however is growing all the time as the amount of data which can be collected from customer interaction is increasing at a faster pace than ever. It is important for businesses to seek ways to access, store, maintain, and utilize the enormous data efficiently. This data, if collected and processed in the right way, can provide a meaningful insight into the purchasing behaviour and needs of individual customers. To do this organizations need modern technological tools such as data warehousing systems.

xii) Knowledge Management Systems: Not all knowledge can be codified and maintained in data or information management systems. Much of the knowledge we use on a daily basis is part of what we do as social beings – in KM terms, it is implicit rather than explicit. The knowledge Management system is similar to content management system use for holding and storing unmodified information that can be read and the content can be updated by the user at any time and space.

xiii) Customer Relationship Management Systems (CRM): CRM systems are technology enabled

management tools which help manage an organization's relationship with its customers. CRM systems help gather / store customer data, analyze this data to enable customized marketing, and are often used to semi-automate customer services. The main purpose of CRM is often stated as 'enriching relationships' with customers to gain greater loyalty, but at times they are used to cut the costs of customer services processes. In an e-banking context, CRM software can help move customers from expensive branch or phone-based services to self-help services over the internet. There have been numerous CRM successes and failures reported in the literature. As with other new technology and other type of change, success depends on how an organization manages the change process and implements the required processes.

xiv) Middleware: Lack of integration with other systems is one of the most common reason for the failures of the above discussed technologies. There are many ways of tackling the problem of integration, such as re-coding parts of existing systems or replacing them altogether, but one method, the use of middleware technologies, has attracted a lot of attention and widespread implementation. These technologies enable different types of systems to interact with each other, and make it easier to integrate new systems which a company may implement in the future to into the existing infrastructure. There are many types of middleware technologies but one which is becoming increasing dominant is Services Oriented Architecture (SOA). Potential benefits, such as reduced IT costs, systems integration and greater business agility have persuaded many organizations to adopt SOA (Knorr & Rist, 2005) [10].

xv) Website development Issues: In e-banking, a bank's website acts as a bank branch or front end. The main difference is that when customers login they do most of the work themselves without any assistance. Therefore creating a positive customer experience is more critical in the e-banking environment. There are many different types of website, E-banking websites and other related systems, without the benefit of human guidance, are expected to communicate effectively and enhance knowledge and understanding of the sometimes voluminous, and often technical, information involved in financial transactions (Tan & Teo, 2000) [9].

3. IMPACT OF TECHNOLOGY ON E-BANKING

The impact of Technology in E-Banking are as follows;

i) Reduction in Cyber-attacks and e-crimes: With the help of technology to direct e-alerts Cyber-attacks and e-crimes are more likely to reduce

ii) Automated payments: Payments are possible to be automatically generated with the aid of an ATM card.

iii) Issue of Automated Receipts: ATMs and e-transfer and e-pay terminals are programmed to issue instant e-receipts.

iv) Automated contracts: with the help of digital signatures, contracts could be signed automatically.

v) Time and cost savings: You can assess your bank at any location and time, saving transportation cost and queuing cost and physical stress.

vi) Tracking of payments and expenditures: with the help of, mobile banking, e-statement and alerts customers' access, view their accounts and track payments and spending thus an improvement in personal finance management and account reconciliation.

vii) Streamlining of complex market and transactions processes: Technology and ICT could help in restructuring transactions (Devlin, 1995) [32] and help clients to plan and budget well for their financial transactions and expenses.

viii) Services Availability and Quality service Assurance: financial services are available 24/7 and service delivery is available all round with the help of reliable and constant supply of internet thus quality services are assured.

ix) Increase in Transparency: tracking your transactions and payments ensures transparency.

x) Enhance Regulatory Reporting: Commercial banks can send their monthly reports electronically. In Cameroon Commercial banks are required to send e-reports on monthly basis to the central on their deposits and loans situations alongside with any specific area the central bank need to investigate. This process enhances regulatory reporting.

xi) Facilitate Reconciliation processes: e-banking has reduced the bulky papers that carries banking transaction and information can easily be exported and used for reconciling accounts.

xii) Improve Error and Transaction traceability: e-alerts make it easy to identify error and trace transactions immediately they are recorded or posted (Devlin, 1995) [23].

xiii) Fraud and crime prevention: e-banking technology are developed in such a way that banking, staff and customer fraud and crimes could be prevented (Abu-Shanab and Matalqa, 2015) [2] and (Wei, Li, Cao, Ou, & Chen, 2012) [31].

xiv) Improve Security: Personalised passwords and pin codes improves account security. This is possible since even the bank staff can't have access to a customer personalized password and pin code. Also the sending of

encrypt mails ensures that information exchange is secured (Jassal & Sehgal, 2013, Kovach & Ruggiero, 2011, Omariba, Masese, & Wanyembi, 2012) [25, 26 and 28].

xv) Confidentiality and Integrity: using a personalised e-banking equipment and instrument without anyone assistance confidentiality and integrity is maintained (Brar, Sharma, & Khurmi, 2012 and Chakrabarty, 2013) [20 and 21].

3.1 E- Banking Products and Services

E-banking products and services are;

i) Internet Banking, Online Banking and Web Banking: Electronic web collection-This enables the bank to partner with Universities and higher institutions of learning handle admission, registration, examination management, fees collection needs and results publication management.

ii) Home Banking: In the early 1970's home banking was offered through touch-tone telephones for very basic banking transactions. During that era, it was considered "home banking" and not phone-banking. In mid-1980's banks offered more advanced home banking services to customers by installing software in customer's Personal Computers (PC) that enabled them to connect to the bank through a dial up connection. It was a sufficient enough secure channel; however, it provided a limited range of services. After 1985, this service was not popular anymore and was not widely spread because it required proprietary systems and huge technology investments, so very few banks managed to provide it. In addition to that, the PC was still not widely spread.

iii) Telephone Banking: This is a medium through which a customer of a bank can assess and link the banks computer Centre through telephone lines. Services rendered through telephone banking include account balance, funds transfer, change of pin, phone recharge and bill payment.

iv) Mobile Banking: This is a system that offers customers of banks to access bank services at a distant with the help of a mobile device such as a mobile phone. With this, customers can make their transactions anywhere such as account balance, transaction enquiries, stop checks, account verification, bill payment and electronic fund transfer.

v) ATM (Automatic Teller Machine): In 1969, the first ATM was offered in the public dispensing cash to customers at Chemical Bank in Rockville Center, New York. It revolutionized the banking industry by eliminating the need to visit a bank to conduct basic financial transactions. In the 1980's the machines provided many banking transactions and became widely acceptable and even popular amongst the clients. They provided many services provided by bank tellers on 24/7 basis, such

as: deposits, withdrawals, transfer, account balances inquiries, requests for cheque books, account statements, etc. Using an ATM requires an ATM card and a personal identification number (PIN) (Balino, Thomas, Omotunde, Johnson and Sundarajan, 1996) [19].

vi) E-Transfer and E-pay: Is a payment device that allows credit/ debit cardholders make payments at sales/ purchase outlets. It allows customers to perform services inquiry, airtime vending, loyalty redemption, and printing of mini statement. ENEO the electricity supply corporation in Cameroon accepts e-payment of electricity bills through mobile money services.

vii) Point of sales (POS) system: a point of sales machines is a payment device that allows credit/ debit cardholders make payments at sales/ purchase outlets. It allows customers to perform services inquiry, airtime vending, loyalty redemption, and printing of mini statement (Ojo, 1998) [29].

viii) Digital Television Banking: this is interactive banking with the help of a television.

ix) Virtual Banking: the use of web site and wireless application protocol technologies to deliver banking services. It is with the aid of such technological products that virtual currencies such as bitcoin are being traded.

3.2 Types of E-Banking Services

Electronic Banking services contributes to customer satisfaction (Offei and Nuamah-Gyambrah (2016) [11], and according to Shah M., Clarke S. (2009, P.23) [12] and Nigudge, & Pathan (2014)[27], the following are types of e-banking services;

i) Account Access: Access online to all of one's account information (usually checking, savings, and money market), which is either updated in real time or on a daily bath basis.

ii) Balance Transfer: Transfer funds between accounts

iii) Bill Payment: Pay any designated bill based on instructions one proves including whether to pay automatically or manually each month.

iv) Bill Presentment: View billing statements as presented electronically, which allows interactive capabilities such as sorting, drill-down details, or advertising, in addition to on-click payments.

v) Mortgage/Credit Card/ other Lending: Search, apply, and receive approval online for various types of loans and then review your statements using online bill presentment.

vi) Business Banking Services: In addition to all of the basic payment and account access services, merchant can

manage their electronic lock box for received payment, accounts receivable posing, as well as initiative payment via networks.

vii) Customer Service & Administration: While the Web will eventually enable live communication, it is most optimally designed to facilitate interaction with information so that customers can more easily service themselves. In the process, customers receive as good, if not better, service while the bank saves money with each additional transaction as it realises the scale economies of its largely fixed online investment. Advanced e-Mail systems with automated replies and intelligent routing are also helping to improve the online customer service experience.

viii) Cross-selling: Just as visitors to a branch are being offered new products by tellers and simple signage, so can Web bank customers. In most cases today, banks perform this function online with standard, broadly targeted text offers or by just making their product literature available online. In the future, banks will be able to harness the true power of the Internet by providing targeted offers to Web customers based on a combination of their indicated interests and financial situation. Not only will banks be able to sell banks products, but non-financial products as well.

ix) Personalised Content and Tools: As one visits the Web branch, one is instantly recognised and content displayed is oriented toward one's interests including weather, investment, and hobbies. More importantly, by using the Web, bank customers could use online financial planning tools to better manage their finances.

x) Accounts Aggregation: Accounts aggregation enables a consumer to be presented with all his or her account details (current account, saving account, mortgage account etc.) on a single page. For access to external (to their first choice bank) financial data consumers to provide their account passwords to the aggregator (usually a bank). The aggregator uses the passwords to access automatically the consumer's accounts. The information is then provided to the consumer on a consolidated basis on a single page so the customer has a full view of his/her financial portfolio. In most cases funds can be transferred from one account to another.

xi) Electronic Funds Transfer: Electronic Funds Transfer (EFT) is a system of transferring money from one bank account directly to another without any paper money changing hands (Fatima, 2011) [13]. One of the most widely-used EFT programs is Direct Deposit, in which payroll is deposited straight into an employee's bank account. This system may also be used for debit transfers, such as mortgage payments.

4. REASONS FOR THE GROWTH OF E-BANKING USAGE IN CAMEROON

Reason for the growth of e-banking usage in Cameroon are;

- Very convenient, comfortable, and easy way to do whatever monetary transaction you wish to do with your bank (Al-Majali, Malek Mohammad, 2011) [17]

- Provides 24/7 services as the e-bank never closes and has no cutoff time

- Smart and interactive with auto solutions and troubleshooting functionalities.

- Higher interest rate enabled through the cost savings achieved by digital firm capabilities.

- Speed and easiness of conducting the digital transactions compared to paper-based dealings with walk-in customers

- Enabled offering more than banking services on the websites; such as tax services, where customers can fill out the tax application online, calculating the taxes, etc.

- Customers benefiting from the time and place shifting 24/7 services.

- Allows customers to be alerted via email and phone of updates and changes in their banking dealings.

- Cost efficiencies passed on to customers with lesser fees and charges than traditional banking (Salhie, Loay, Abu-Doleh, Jamal and Hijazi, Nada, 2011) [30]. Banks to the banks but they vary such as cars, gold, mortgage, land, silver etc.

- Acceptance by and convenience for customers

- Increase Image and Reputation of the bank, service provider and the customer (Salhie, Loay, Abu-Doleh, Jamal and Hijazi, Nada, 2011) [30].

- Easy Implantation, implementation and expansion

- Easy marketability of E-Banking: E-Banking is self-marketable

- Availability of Technology

- Youthful and adventurous population

4.1 E-Banking Market in Cameroon

The providers of e-banking services in Cameroon are:

i) Commercial Banks: With the exception of 2 banks out of the 14 commercial banks in Cameroon are now with ATMs and Cards and are offering a good range of e-banking services.

ii) Telecommunication Operators: All the three mobile telecommunication operators in Cameroon now offer Mobile money services. These mobile telecom operators are; MTN Cameroon, Orange Cameroon, and the newest in the list is Nexttel Cameroon

iii) Micro Finance Institutions (MFIs): In Cameroon there are at least 500 licensed MFIs and some (Credit du Sahel, Express Union, CCA, UNICS etc.) are offering e-banking services.

iv) Commercial Firms: These are firms offering virtual currency such as bit coin. These type of specialized firms are the newest in the niche and are relatively the fewest in number and without sufficient experience in e-banking.

v) Shops and Super Markets: shops and shopping centers accepting electronic money as means of payments for goods and services.

vi) Mobile Money and Call Center Operators: examples include; mobile call centers, boxes dotted in city and town areas offer mobile money services (in particular pay and send money)

vii) International Instant Money firms: This market is made up of international instant money transfer agencies such as Western Union and Money Gram.

4.2 Findings

Almost all commercial banks (with the exception of one “Citi Bank” due to its over investment, emphasis, reliance and preference on corporate and investment banking models to retail banking) in Cameroon are with ATMs and cards. Through e-reporting commercial banks in Cameroon can send their bank credit (loans) and deposit reports electronically to the Central Bank thus saving time, cost and paper work. On the part of the Central Bank this report called CERBER increases and facilitates regulatory reporting. Thirdly, ENEO the national electricity supply corporation in Cameroon accepts e-payment for electricity bills through mobile money and issues an instant confirmation message for the payment with an e-receipt issued in less than 24 hours from the payment time. And finally on findings, commercial banks are not the only providers of e-banking services in Cameroon, there exist other strong competitors such as Mobile Telecommunication companies and a good number of MFIs.

5 CONCLUSION

To conclude e-banking technologies have revolutionised e-banking services in the world just as in Cameroon and could even do more if both bankers and IT engineers work constructively in a team to develop new leading edge technologies that are cost effective and efficient in providing e-banking services. There are enormous cost, time and stress savings in offering e-banking services and the impact of technology in e-banking are manifold.

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