

IMPACT OF ELECTRONIC BANKING ON CUSTOMER SATISFACTION IN BANK POPULAIRE OF RWANDA BETWEEN 2015-2017: NDERA BRANCH AS A CASE STUDY

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Abstract: The study in hand was on impact of E-banking on customer satisfaction in Bank populaire of Rwanda (BPR), the case of Ndera branch. The study assessed the effect of e-banking on customer satisfaction. It shed light of factors influencing customers' satisfaction such as reliability and accessibility of e-banking, the convenience of e-banking and their impact on customer satisfaction in BPR. The main objective for conducting this research is to assess the impact of e-banking services delivery on the satisfaction of customers in BPR. The target population was bank staff and customers. To select the sample, convenience sampling was used. Data were collected by self-administered questionnaire to customers using e-banking and interview given to bank staff. Data were analyzed using descriptive statistics. It was shown that ebanking services were reliable and accessible in BPR as the majority of respondents (52%) agreed with all indicators of ebanking reliability and accessibility. Moreover, ebanking was said to be convenient as the majority 70% agreed with all factors contributing to convenience. It was revealed that 17.9 % of respondents were dissatisfied, 41.1% satisfied, (28.6 highly satisfied) with using ebanking services due to a number of reasons(high charges, poor network, limited safety and security of their money). On the other hand, the majority(69.9%) of respondents reported to be happy with ebanking services in the BPR due to time saving, its convenience, working time etc). The findings implied that although a lot has been done to improve ebanking services in order to meet customers' expectations, there is a need to keep on improving to fully satisfy customers. Recommendations were formulated to different ebanking stakeholders such that customers should improve the way they keep the ATM pin, the bank should increase the limit amount withdrawn per day and ensure the security and safety of customers money. The bank should also reduce time taken to get refunded the bounced money etc.

Keywords: electronic banking, customer satisfaction.

1. INTRODUCTION

Banking institutions have always been a highly information intensive activity that relies heavily on IT to acquire, process and deliver the information to all relevant users. Not only IT is critical in the processing of information, it provides a way for banks to differentiate their products and services. It was found that banking institutions need not only to constantly innovate and update their products and services but also provide convenient, reliable and expedient services in order to retain their demanding and discerning customers (Braghai, 2007). In this respect, electronic has been one of the means used to deliver financial institution services. It was established in the mid-1990s and has become more important in bank service provision since then. Electronic banking is defined as the provision of information or services using a computer or telephone by a bank to its customers (Allen et al, 2001). Furthermore, the term "electronic banking" or "e-banking" refers to the use of information and communication technology by banks to provide services and manage customer relationship more quickly and most satisfactorily (Charity-Commission, 2003).

According to Vandermerwe and Rada (1988), electronic banking is the use of computer and telecommunication to enable banking transactions to be done by telephone or computer rather than through human interaction. Furthermore, Daniel (1999) defined electronic or internet banking services as major information services of a bank to serve its

customers via the internet. Internet banking permits consumers to carry out usual banking transactions on a computer which is equipped with internet connection (Fox, 2006). Among the most commonly used internet banking services include transferring funds between accounts, checking the balance in one’s bank account and bill paying (Fox, 2006).

2. STATEMENT OF THE PROBLEM

Today, all business industries have been rapidly changing toward using technology in delivering all services. In this respect, banking industry is focusing on shifting from traditional banking to electronic service delivery channels. This helps them to serve customers 24/7. Electronic banking is defined as the automated, smooth and efficient delivery of modern and traditional banking services through electronic and communicative channels. It includes the systems that customers use to access accounts, transact businesses and obtain information through networks, including the internet. These networks could be private or public. Electronic banking is, therefore, a general term describing the whole process of performing such transactions without the need to physically visit the financial institution. All of the following terms refer to different forms of electronic banking; personal computer (PC) banking, online banking, home banking, mobile banking and virtual banking (Shan, 2006)

Despite the adoption of e-banking by many banks in Rwanda to satisfy the banking needs and wants of their customers, limited research was conducted to identify its effect on customer satisfaction (Calisir ,2008) especially in Rwanda. Most of the studies conducted on service delivery and customer satisfaction looked at traditional service of service delivery and customer satisfaction. The relationship between ebanking and customer satisfaction has not received much attention. There is therefore the need to assess e-banking and its impact on customer satisfaction in BPR so as to have empirical evidence on it and to also provide feedback to the banking institutions on customers’ satisfaction with their e-banking services. This study will be conducted to assess the impact of ebanking on customer satisfaction in Rwanda banks, the case of BPR.

3. OBJECTIVES OF THE STUDY

The main objective for conducting this research was to assess the impact of e-banking services delivery on the satisfaction customers in BPR.

Its specific objectives were:

1. To assess e-banking service availability, convenience and reliability in BPR
2. To identify factors hindering customer satisfaction among customer-users of electronic banking in BPR.
3. To analyse the impact of e-banking service delivery on the satisfaction of customers in BPR.
4. To find out strategies to be adopted to improve customer satisfaction among Users of electronic banking for e-banking loyalty increment.

4. CONCEPTUAL FRAMEWORK

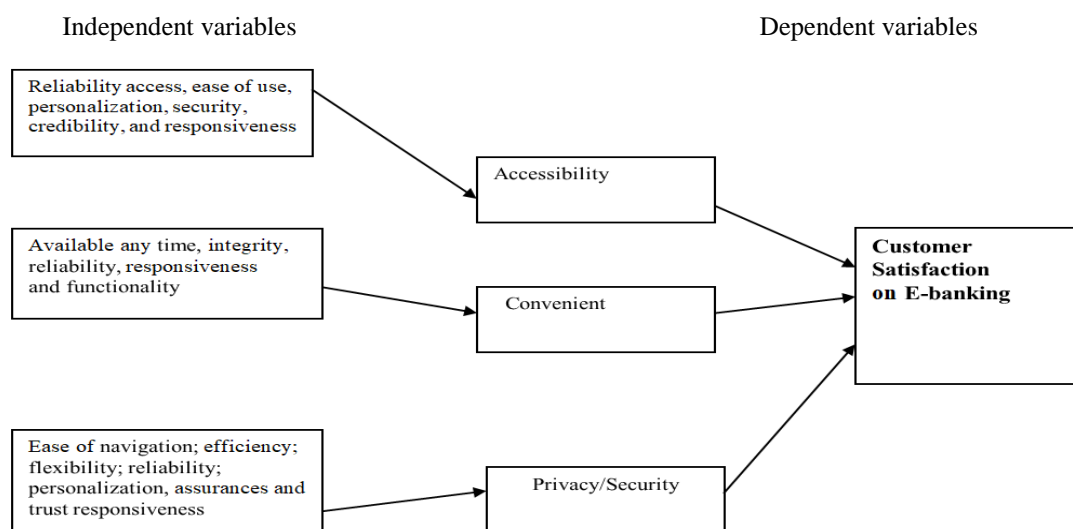


Figure1: Conceptual framework

5. RESEARCH METHODOLOGY

- **Research Design:** The design of the present study was a case study using a mixture of qualitative and quantitative approaches
- **Target Population:** The target population of this study was customers of BPR and its staff.
- **Data Collection Instruments:** The study used self-administered questionnaires to both customers and bank staff.

6. RESEARCH FINDINGS

6.1 Ebanking services delivered in BPR

Data analysis showed that the respondents mostly used the following ebanking services offered in BPR: Mobile banking, ATM, Transfer money, IZI cash, Online banking, POS Banking (Credit and Debit cards).

Table1: Time spend on Ebanking

Response	Number of Respondents	percentage
The time spent was relatively low comparing with their outcomes (1-5 minutes)	83	43.9
The time spent was relatively longer comparing with their outcomes (5-10 minutes and above minutes)	45	23.8
The service provision are in conformity of customer service satisfaction	61	32.3
Total	189	100

Results showed that the times spent by individual respondents with regards to the use of E-banking facilities were differing. The results indicated that 43.9% of respondents stated that they actually spent less time five minutes, using E-banking while 23.8% mentioned they rather spent more than 5 minutes using the E-banking system. According to the result, 32.3 % said they spend less time and the service provision using E- banking was satisfying in comparison with the other one. Customers do not require a lot of time using E-banking products.

Table 2: Convenience of ebanking services in BPR

Response	Strongly agree		Agree		Neutral		Disagree		Strongly agree	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Location/Access	34	18	76	40.2	26	13.8	31	16.4	22	11.6
Speed of services	71	37.6	98	51.9	11	5.8	7	3.7	2	1.1
Available any time	32	16.9	48	25.4	39	20.6	37	19.6	33	17.5
Associated price and competitiveness to environment	45	23.8	56	29.6	42	22.2	29	15.3	17	9
Ebanking is responsive	67	35.4	81	42.9	34	18	5	2.6	2	1.1
Ebanking is not expensive	23	12.2	34	18	16	8.5	70	32.3	55	29.1
Ebanking functions well	35	18.5	51	27	22	11.6	44	23.3	37	19.6

The table above showed that 58.2% agreed that ebanking was located not far from them. Location is obviously the key convenience success factor and for the customers the location must be close to where they live, where they work, or on their normal route to and from home or work. In addition, the location, to be really convenient, must have easy access and egress, and convenient parking spaces for customers who to get the money by also to and to get in and out quickly. The right location provides both convenience and value. Locations of most of ATM are close to the people and the Bank is continue trying to outlet more.

Concerning the speed of service, about 89% stated that ebanking is very quick. It does not take much time to use ebanking. In an environment where consumers are always pressed for time, convenience and value are both provided when the Bank is easy to get the money, where the customers can easily locate what they want to buy, and they can get fast, efficient and friendly service. The speed of the services where money can be taken is higher:

For ebanking availability, respondents agreed that the service is available (48%). Most of the time ebanking services are available 24/7. On the other hand, 36% disagree with the statement saying that the availability of money in ATM is limited. Customers were not allowed to withdraw more than the limit amount set by the bank. As far as the cost of ebanking is concerned, 75% agreed with price associated with the ebanking and that they were competitive to market environment while 25% disagreed with the statement. Price is a key component of value, but value for money spent is probably a more important consideration. Generally, most research on consumer attitudes on the convenience business has shown that consumers expect to spend a little more when they purchase products in a convenience store, and for the most part they do not mind. They can justify a small convenience premium because it is close, convenient, they are saving precious time, and if the store is clean, friendly and has the products they want. If however they feel that they are being gouged by high prices then they are turned off and value disappears. In this case the charges of E-banking must be reduced to copy with challenges facing customers on facing e-banking.

Environment; Increasingly today the store environment plays an important role in the consumer's perception of value, as more and more up-dated and modern convenience stores appear in the marketplace. If the store is clean, bright, uncluttered and easy to shop, the staff appears friendly and interested, and the store offers a wider range of convenience products and services, the consumer is more willing to patronize it more frequently. If however, the store is old, tired, dirty, cluttered, etc., the store will probably only be used for emergency purchases. For the case of ATM, there is a need to be in clean environment, situated in good environment and easy to reach. The reality is that convenience are tightly linked where convenience is more than just location, value is more than just price, and making the best use of precious time is a consumer imperative.

With an increasing number of consumers utilizing the global marketplace of the E-banking, convenience has become one of the primary factors for spending digitally. Shoppers are forsaking brick-and-mortar retailers where they have to scour through racks and shelves while often dealing with insolent salespeople in favor of just typing a few keywords and instantly having the ability to make purchases from anywhere in the world. When designing and developing e-commerce site, the assumption should be that the customers are online because they have limited time; they want to find items quickly and easily; and they often have a specific need for a certain product. Accept credit cards and as many other forms of payment as possible. There is little to be gained if they launch a great site and then ask for payments to be mailed to them in the form of a check or money order. It is better to wait for the merchant account to be approved before going live prematurely.

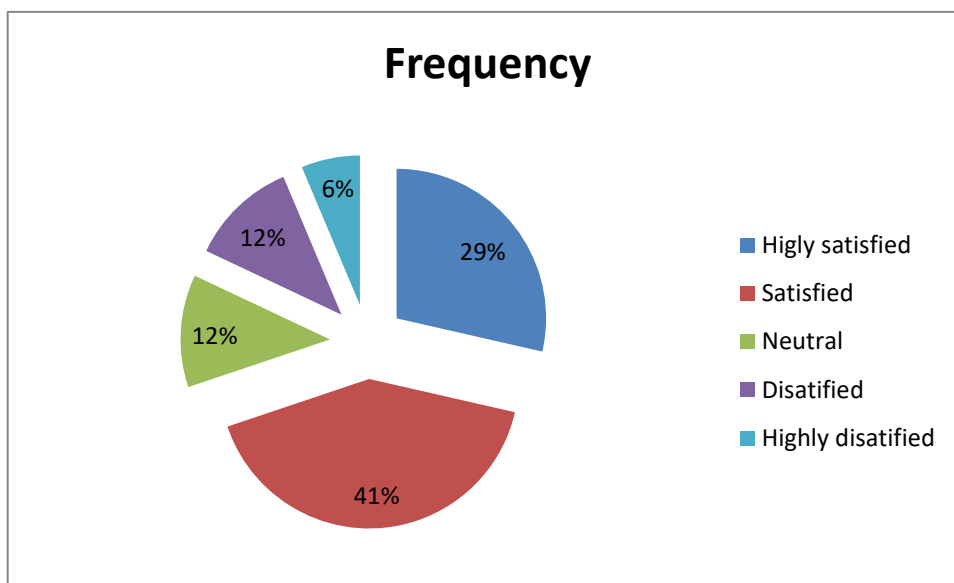


Figure 2: Customer satisfaction on E-banking in BPR

To assess how customers were satisfied with e-banking, respondents were asked to rate how satisfied they were. Results were presented in table above. Results revealed that respondents' satisfaction differ from one another. It was revealed that 17.9 % of respondents were dissatisfied, 41.1% satisfied, 28.6 highly satisfied. These findings showed more than 69.9% of customers were satisfied with e-banking system in the BPR. However, it was discovered that comfortability of customers is also another factor associated with the use of E-banking products. The comfortability derive from E-banking usage lessen time spend for banking. Customer satisfaction is a key to a development of a facility.

6.2 Impact of e-banking on customer satisfaction

The response of customers question which compare the satisfaction of customer between ordinary banking and e-banking respondents said that e-banking has given them (70%) more satisfaction than ordinary banking and only few people(30%) said they are dissatisfied. The interview responses support the results obtained from customers that is the bank said that the types of e-banking service delivery channels currently provided by them are ATM and POS and majority of the users use ATM to transact and from the oral feedback they got from customers the technology has given more satisfaction to customers. Some of the reasons mentioned that made respondents include many advantages provided by e-banking. One of them includes reduced waiting time: by using E-banking the waiting time is reduced compared with the tradition waiting time per transaction.

Another advantage is saving time and working time: respondents are satisfied with time saving as they cannot wait on queue . Besides it was revealed that the e-banking can be accessed 24 hours and seven days but the banks have a time limit of working. During evening and the week end the e-banking continue to be used while banks are closed.

It was stated that conventional banking happens to be slow and time intensive, a lot to ensure that sometimes have to wait several hours to process an easy transaction like clearing a cheque. But, e-banking banking has greatly reduced time needed to process banking transactions, therefore making banking faster and convenient. It was also noted that for those bankers this technique is cost-effective, since it has substantially reduced the administrative costs and documents associated with the transactions. Besides, banks may also focus on the requirements other clients simultaneously. Each one of these factors has considerably elevated the income of business banks by lowering their operating costs. It has enabled these phones offer acceptable rates of interest on checking account and charge cards.

It was further noted that by using e-banking, someone have access to any specifics of the bank account and transactions, whenever during the day; which means that they have no more need to rely on the work hours of the bank to acquire information. Therefore, they are able to regularly monitor the bank account in addition to keep an eye on financial transactions, which may be of immense assist in discovering any fraudulent transaction. Additionally for this, fund transfers, both national and worldwide, also have become faster and convenient with Internet banking.

Nowadays, they are able to transfer funds in one account to a different inside a couple of minutes. It is simple to execute stock buying and selling, swapping bonds along with other opportunities by using Internet banking. All of these features make e-banking ideal for those who make numerous financial transactions every day. Additionally to availing banking facilities for twenty-four hour each day, may also receive other information regarding banking guidelines, interest rates offered on various kinds of accounts and thank for needed in performing various transactions. With information they are able to compare the expertise of different banks and choose the one which satisfies the own needs and needs.

It was revealed e-banking is convenient and that is the advantage they derived from services such as the ATM prevent them from joining longer queues at the banking hall. Also, they reported that electronic banking in generally is fast. They gave instances where remaining balances are easily received on phones via text messages and electronic mails rather walking to the banking hall to request for it. Respondent indicated that electronic banking is always available in 24 hours daily. The ATM for example operates at weekends and nights when the banking gates are locked. E banking also plays a vital role in remittances, thus customers are able to electronically receive money from abroad. Remittances over the years have played a vital role in the socio- economic development of Rwanda.

On the other hand, some respondents are not satisfied with e-banking services due to a number of reasons as mentioned in the questionnaires. However, there might be some serious disadvantages of Internet banking, of that the safety of the money is an essential one. So while availing the facilities of Internet banking, they need to be careful to guarantee the security of the computer and private information such as the password, user title and flag of the money.

Otherwise, they might be a victim of computer hacking, be responsible for unauthorized utilization of the bank account by computer cyber-terrorist. Though banks have developed several safety measures, the clients will also be needed to become a little careful to make sure safety and security of Internet banking.

Another advantage stated is that you may not have access to a physical branch if you need to withdraw cash, ask an unusual question or otherwise get assistance, so banks are also effectively compensating you for giving up this luxury. But if your banking needs seldom require a physical interaction with a teller or manager, then you may be better off using an online bank. Online bank accounts also provide ATM withdraw charges, that are whenever you use it there are some charges associated with the transactions. Sometimes, when using ATM to withdraw some money, you may not get it and it takes 48 hours to get your money back. There may be hackers who might know the customer's pin and rob their money. Cyber crime can be also mentioned as one of the disadvantages. While availing the facilities of Internet banking, they need to be careful to guarantee the security of the computer and private information such as the password, user title and flag of the money. Otherwise, they might be a victim of computer hacking, be responsible for unauthorized utilization of the bank account by computer cyber-terrorist. Though banks have developed several safety measures, the clients will also be needed to become a little careful to make sure safety and security of Internet banking.

Respondents revealed that they are not satisfied with ebanking due to the following risks related to ebanking. They may be associated with some risks: operational, legal and reception risks..

Operational risk: e-banking has some special characteristics that lead to increased and changing risks considered traditional banking activities. These characteristics are extraordinary speed of change in technology; open and global nature of electronic networks; integration of electronic banking with the core of banking; increasing dependence of banks from third parties, which develops software applications necessary to run the e-banking. Due to rapid changes occurring in technology, banks are faced with specific risks of electronic banking and electronic money activities

Legal risks: Appears through the non compliances with the laws, rules, regulations or practices prescribed or where the rights and legal obligations of the parties participating in a transaction are not set correctly. Non divulgence or secrecy is the duty of the banker to his customers account; if electronic banking is misused by its agents or employees who are at the exposure of one's account status and disclose such information to the public or his competitors then the bank shall be liable. As such involvement of independent contractor who are equipped with ICT knowledge is the other legal challenge, such personnel at times tend to use such knowledge to steal from various accounts.

Reputation risks: Is the risk due to a significant and negative public opinion which consists of a critical loss of the funds or bank's customers. Reputation risk can occur when the bank fail to fulfill critical functions. Continuous loss of money by fraud via internet or through the use of the Automated Teller Machines may cause destruction of the banks reputation henceforth its demise, as customers would always wish for a secured place to trust for the deposit of their funds.

Security codes control challenges, it is argued that electronic banking ubiquitous thus anyone can transact at any time from any place, this in turn is a challenge on the whole question of protection of customers account or information, a mere knowledge of ones code which serves as ones identity transacting via electronic means entail if someone else has your codes, they can transact on your account as if they were you. Electronic Banking is challenged by cyber crimes, as one can maneuver the whole aspect from a distance and become unrecognized acts of phishing in which one creates an email in the name of the financial Institution and deliver it to customer, would cause a serious challenge by giving out information which are used to draw money from a person's account. The latter challenge is with individuals who would steal by creating website resembling that of ones bank and attain data that enable him take someone money as if he is the real owner.

A legislative Framework appropriate for electronic banking; the other challenge is with the current legal system on electronic banking, it does not provide for adequate safeguards to create an environment of trust for electronic banking. And consequently institutions cannot set up related provisions to support electronic transactions of their own.

Traditional Market Mechanism as a challenge; the continued use of traditional market mechanism such as the use of actual currency remains a challenge in the country on electronic banking, various literatures support that the promise of electronic commerce, banking swinging in has been recognized in BPR, but the fact is that it has not been realized at the rate which policy documents of the country claim.

Convertibility of electronic currency as challenge: Electronic banking is faced by the challenge on its payment mechanism, electronic payment system operation which suffers from lack of convertibility of electronic currency. The balance in any electronic cash account is not convertible like cash without the help of an intermediating third party. In BPR consumer's response on the use of e-banking is low as compared to the developed countries, transactions are still carried in terms of cash payment, at Institutional and large office cheques have continued to dominate payments. Much of risks associated with the use of electronic banking, lack of sufficient and guaranteed technology, absence of a great deal of statutory protection on these transaction such as electronic payments, electronic transfers have remained unreliable in the country, of a great impact is lack of enough knowledge on electronic banking as the largest part of the country's population cannot meet the costs of technology neither do they have the fundamental links to the use of the latter and how risk of spishing and spoofing could be avoided. To sum up, one can agree that ebanking has an impact on customer satisfaction as the majority(70%) agreed despite some shortcomings associated with the use of ebanking.

7. CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

7.1 Conclusions

The main findings were that the mostly used ebanking services offered in BPR: were Mobile banking, ATM, Transfer money, pay bills, IZI cash, Online banking, POS Banking (Credit and Debit cards). Respondents were both male; civil servants businesspeople. This implied that BPR customers occupation vary. It was shown that ebanking services were reliable and accessible in BPR as the majority of respondents (52%) agreed with all indicators of ebanking reliability and accessibility. Moreover, ebanking was said to be convenient. The majority said they were satisfied, with ebanking services in the BPR due to time saving, its convenience, working time etc).

Those who were dissatisfy with using ebanking services due to a number of reasons (high charges, poor network, limited safety and security of their money). Although a lot has been done to improve ebanking services in order to meet customers' expectations, there is a need to keep on improving to fully satisfy customers.

7.2 Recommendations

Based on the findings of this study, the following are the recommendations. As information and communication technology grow so rapidly and bear an impact on each aspect of life, to successfully implement electronic banking in Rwanda the following should be given significant attention ;

- customers should improve the way the keep the ATM pin,
- The bank should increase the limit amount withdrawn per day and ensure the security and safety of customers' money.
- The bank should also reduce time taken to get refunded the bounced money etc.
- education and marketing of E-banking products should be encouraged in the bank to attract more customers;
- Discouraging traditional mechanisms of payments, for efficient implementation of electronic banking and coin notes should be adopted and encourage customers to use of electronic cash, smart cards come in place for effecting various transactions.

REFERENCES

- [1] Addai et al.(2015): Electronic Banking and Customer Satisfaction: Empirical Evidence from Ghana. British Journal of Economics, Management & Trade.vol 9 (3): 1-8. ISSN: 2278-098X
- [2] Al-Ghamdi, A. (2009). Investigating Factors Affecting Customers of Using Internet Banking: A comparison study between Saudi Arabia and the UK. Brunel Business School, Doctoral Symposium, May 23 & 24, 2009.
- [3] Allen, F., McAndrews, J., and Strahan, P. (2001). E-finance: An Introduction, Working Paper No. 01-36. Financial Institutions Center, Wharto University, Philadelphia, PA.
- [4] Bahia, J. (2007), "A Valid and Reliable Measurement Scale for the Perceived ServiceQuality of Banks", International Journal of Bank Marketing, Vol. 18 No.2, pp.84-91.

- [5] Beh Yin Yee and T. M. Faziharudean. (2010). A Study on the Determinants of Customer Loyalty using Internet Banking Websites in Malaysia. *Journal of Electronic Banking Systems*, 2, 1-21.
- [6] Calisir F, Gumussoy CA. Internet banking versus other banking channels: Young consumers' view. *Int. J. Inf. Manage.* 2008;
- [7] Casaló LV, Flavián C, Guinalú M. The role of satisfaction and website usability in developing customer loyalty and positive word-of-mouth in the e-banking services. *International Journal of Bank Marketing*. 2008;
- [8] Devlin JF, Yeung M. Insights into customer motivations for switching to Internet banking. *The International Review of Retail, Distribution and Consumer Research*. 2003;
- [9] Hong W, Thong JYL, Wong W. Determinants of user acceptance of digital libraries : An empirical examination of individual differences and system characteristics. *J. Manag. Inf. Syst.* 2002
- [10] Jun M., and Cai S. 2001. The key determinants of Internet banking service quality: A content analysis. *International Journal of Bank Marketing*. 2001
- [11] Kawamala N. 2013 Investigating e-banking and customer satisfaction in tanzanian banks the case of azania bank ltd A dissertation submitted in partial fulfillment of the requirements for the degree of masters of business administration of the open university, 2013
- [12] Laforet, S & Li, X. (2015). Consumers' Attitudes Towards Online and mobile Banking in China. *International Journal of Bank Marketing*, 23 (5), 362- 380.
- [13] Ndubisi NO, Wah CK, Ndubisi GC. Supplier-customer relationship management and customer loyalty: The banking industry perspective. *Journal of Enterprise Information Management*. 2007;
- [14] Sadiq Sohail M, Shanmugham B. Ebanking and customer preferences in Malaysia: An empirical investigation. In *Information Sciences*. 2003;150(3-4): 207-217.
- [15] Shan, T. (2006). Building a service-oriented eBanking platform. *IEEE International Conference on Services Computing, 2004. (SCC 2004). Proceedings*. 2004.
- [16] Simon, V. T. & Thomas, A. S. R. (2016). Effect of electronic banking on customer satisfaction in selected commercial banks, Kenya. *International Academic Journal of Human Resource and Business Administration*, 2 (2), 41-63
- [17] Simpson, J. (2002) *The Impact of the Internet in Banking: Observations and Evidence from Developed and Emerging Markets*, *Telematics and Informatics*, Vol.19 No. 4, 2002, pp.315-330.
- [18] Thanika Devi Juwaheer, Sharmila Pudaruth, Priyasha Ramdin, (2012) "Factors influencing the adoption of internet banking: a case study of commercial banks in Mauritius", *World Journal of Science, Technology and Sustainable Development*, Vol. 9 Iss: 3, pp.204 - 234
- [19] Wang YS, Yu-Min Wang , Hsin-Hui Lin, Tzung-I Tang (2003). Determinants of user acceptance of Internet banking: An empirical study. *International Journal of Service Industry Management*. 2003;
- [20] Worku G1, Tilahun A1 and Tafa MA2*.2016..The Impact of Electronic Banking on Customers ' Satisfaction in Ethiopian Banking Industry (The Case of Customers of Dashen and
- [21] Wogagen Banks in Gondar City). *Journal of Business & Financial Affairs*. 5(2)pp1-18.