

The extent of technological use in some selected commercial banks in Central Uganda: an empirical survey of bank customers

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Key Words

Technological use, commercial banks, Central Uganda

Abstract

The use of technology in banks has now greatly improved from ATMs to CRB. This has faced several challenges and has affected the service quality. This study therefore was aimed to establish the Extent of technological use in commercial banks in Central Uganda. The objectives of the study included to determine the (i) demographic characteristics of the respondents (ii) extent of technological use and (iii) to distinguish whether there are significant differences in the Extent of technological use.

The study adopted cross sectional survey, correlation design and quantitative paradigm. The population was 600 respondents; using Slovene's formula a minimum of 240 respondents were sampled. Data was collected using Self Administered Questionnaires with a CVI = 0.85 and using Cronbach alpha $r = 0.95$. Data was analyzed using descriptive statistics and t-test.

The findings on the Extent of technological use included benefits of ATM use being satisfactory, customers not facing problems from ATM use, rare use of ATM for items depositing currencies, paying routine bills, accessing mini statements. ATM use abroad for items being satisfactory, ATM being reliable and CRBs not benefiting the customers. There is significant difference between the selected commercial banks in terms of extent technological use with its t- value = 4.231 and sig value = 0.000. Recommendations made included Commercial Banks, Bank of Uganda and Government should review the policy; rate of charges on the use of ATM points in Uganda, the mentioned institutions should also educate customers about the benefits of Credit Reference Bureaus and others.

Introduction

Prior to Uganda's independence in 1962, Government-owned institutions dominated most banking in Uganda. In 1966 the Bank of Uganda, which controlled the issue of currency and managed foreign exchange reserves, became the Central Bank. Uganda Commercial Bank (UCB), which had 50 branches throughout the country, dominated commercial banking and was wholly owned by the government (Ating - Ego 2001). In the late 1990s and early 2000, the Ugandan banking industry underwent significant restructuring. Several indigenous commercial banks were declared insolvent, taken over by the Central Bank and eventually sold or liquidated. These included Cooperative Bank, Green Land Bank and others (Kalunji, Olanyo & Odyek 1999, Juko & Tolit, 1999) .

One factor that has led to improved services offered by the banks is attributed to technology. By 1997 standard chartered bank had already deployed the first ATM machines. Today the level of technology has risen in the country to include Credit Reference Bureaus (Mutebile, 2008). Use of the technologies has faced challenges such as cost of operating the service provider, lack of availability of constant and adequate power to run the technology and fraud (Muwanga 2004 & 2011, Kasambira 2008 & Ndawula, 2010). This study therefore was aimed to establish the relationship between level of technological use and service quality. The objectives of the study included (i) to determine the demographic characteristics of the respondents (ii) to determine the Extent of technological use (iii) to distinguish whether there are significant differences in the Extent technological use.

Literature Review

Solomon and Elnora (2003) argue that new era firms see technology as an investment they cannot afford not to make. That is why today there are very few companies that do not have websites. But technology goes much further from improved manufacturing processes using robotics to the use of satellite communication technology to track the movement of goods to sophisticated e-commerce programs: technology provides many firms with important competitive advantages. Many technological developments profoundly affect marketing activities. Toll free telephone numbers, easy computer access to customer data base and of course the internet. Pezullo (1998) holds the view that level of technological use is a product of the wealth of technical knowledge and advances in our society genetic mapping, spacing and oceanographic exploration, fiber optics, and personal communication systems are few positive examples.

The other side of technology is seen in Ndawula (2010) that there staff attempted to temper with internal financial transactions and crediting fake accounts with money purportedly for loan recovery facility in a fraud case in Uganda. Muwanga (2002) has expressed concerns regarding the security of the transaction, confidence and integrity of the system and legal frame work governing these transactions. Peter (2008), pointed out that despite the banking sector using information technology we see the problem of lack of accessibility of banking services, fear of high banking charges a customer is required to pay, long queues and poor banking systems.

Automated Teller Machines

Technology has given consumers a greater number of choices in the way they access their banking services. ATMs enable customers not only to get cash, make deposits and inquire about their balance but also cash checks, obtain accounts statements and more funds among deposits and investment accounts. Automation in banks is helping to reduce amount of paper work including changing addresses on the existing accounts (Pezullo, 1998). The ICT products in banks include e- banking programs (deposit taking, lending, and accounts management, provisional of financial advice, e- bill payments, ATMs, telephone banking, smartcards and others (Mulira, 2003 & Muwanga, 2002). The level of technological use represents the applications to marketing of knowledge in science, innovations and inventions. New technology results in new goods and services for consumers, it also improves the existing products, offer better customer services, often reduces process through new, cost efficient production and distribution methods. Mulira (2003) analyses the role of ATM as improving the time spend and space occupation compared to human tellers.

According to Henry and Lucas (1997) Information technology refers to all forms of technology applied to processing, storing and transmitting information in electronic form. The physical equipment used for this purpose includes computers, communications equipment and networks as cited Musiime and Biyaki (2010). Information technology is a medium that has revolutionized banking and everyday operations at the click of a button thus enabling sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and reaching geographically distant and diversified markets (Marion, 2008).

The study carried out by Mulira (2003) on Information Technology, its role in a challenging banking environment defined ICT as all equipment and related systems that are utilized in the storage, processing and transmission of information. These are tools used for managing information and aiding in the management of resources. They include computer systems (both hard ware and soft ware), communication (telephones, intercom, fax machines, emails among others). Muwanga (2002) linked these facilities and transmission to channels of delivery including Automated Teller Machines (ATM), tel-banking, personal computer banking and home banking in addition to e- banking and mobile phone banking. Mulira (2003) continues to state that the impact of IT in an organization is a function of the investment and the quality of its use. In industrialized countries the investment in IT is enormous compared to the developing countries, however the developing countries have also realized the importance of investing in IT. They need to keep up with the immense speed and efficiency with which

information has to be managed. In the service industry the benefits of the IT often goes to the customer as service levels have improved.

The introduction of ICT in any organization always invariably results in to a series of changes in any dimension. These include changes in operations, procedures, organizational structure and attitudes to mention but a few. Kamulegeya (2002) continues to add to the list of changes including enhanced efficiency in marketing, sales, customer management, financial and cost management, managing of products or services, introducing and selling of new products and so on. These changes affect job description, de- skilling, re- skilling, making experience acquired irrelevant, salary earnings, recruiting new staff and others.

Benefits of ATM use

The immediate benefit to businesses could be inform of customer satisfaction, transaction cycle time reduction, optimizing effectiveness, reduced transaction and over head costs, improved return on investment and increased competitiveness. This view was in line with Akinlolu (2010), while looking at Information and Communication Technology (ICT) in Banking Operations in Nigeria – An Evaluation of Recent Experiences, a comprehensive evaluation of the response of Nigerian banks to the adoption of ICT realized that the period between 1990 and 2005 was characterized by fundamental changes in the content and quality of banking business in the country. Technology has been discovered to be the main driving force of competition in the banking industry during the period of study. Whereas only one bank had ATM in 1998 by 2004, 14 of the studied banks had acquired the technology.

Moya, Balunywa and Nanyuma (2010) while carrying out a study on Technological Innovations in Bank of Africa (Uganda): An Evaluation of Customers' Perception realized that generally technological innovation or electronic delivery channels have contributed positively to the provision of banking services in Bank of Africa; particularly ATMs and internet banking. Rose (1999) continues to argue that ATMs continue to work when human tellers have stopped, hence there is continual productivity for the banks even after banking hours. Al Hawari and Ward (2006) while looking at the effects of automated service quality on Australian banks' service performance and mediating role of customer satisfaction realized that firms would reap benefits such as cost savings, efficiency, greater consumer involvement, customer satisfaction and loyalty and improved financial performance if they provide quality electronic banking channels.

Problems of ATM use

Despite the enormous benefits of e- banking, Muwanga (2004), advanced the challenges e-banking is facing in Uganda include in adequate legal frame work, poor systems protections, lack of ready and reliable internet, lack of knowledge of use among customers, in adequate geographical coverage of the services, cost of operating e-banking, lack of availability of constant and adequate power to run the technology. Kisambira (2008) continues to lament that Uganda has been hit by a new wave of crime - electronic fraud - but there are no laws and monitoring systems to protect citizens' money, from fraudulent hands. According to police, an increasing number of Ugandans have mysteriously lost money electronically through their ATM cards, money transfers and even through e-mail hacking.

Common use of ATM

ATM or Automatic Teller Machine is a computerized telecommunication device that links a customer of a given financial institution to his/her bank account with the help of a PIN or Personal Identification Number. ATMs are normally placed in public places and the idea is to carry out your transaction without the help of a teller or banking officer. ATMs in Uganda can allow you make cash withdraws, access mini statements, check on account balances and in some cases make deposits. Those that accept deposit transactions in most cases the deposit is not instant because a human being at some point has to verify the deposit and make a complete entry on your account. It normally takes up to 2 working days for that kind of deposit to be reflected on your account (Khan, 2010). According to Agboola (2001) while discussing the dimensions in which automation in the banking industry was manifested in

Nigeria, it included (i) Bankers Automated Clearing Services: This involves the use of Magnetic Ink Character Reader (MICR) for cheque processing. It is capable of encoding, reading and sorting cheques. (ii) Automated Payment Systems: Devices used here include Automatic Teller Machine (ATM), Plastic Cards and Electronic Funds Transfer.(iii) Automated Delivery Channels: These include interactive television and the Internet. Angumya (2011) report some of the uses of ATM as cash withdrawals and balance inquiries.

Reliability of ATMs

According to Mboma (2006) in order to operate ATM successfully, the bank needs a computer hard ware and soft ware, internet service provider, adequate band width, qualified ICT employees, reliable electric power supply and ATM machines. It is widely viewed and accepted from business point of view that convenient, fast electronic support in transactions management helps reduce costs and enhance service delivery. Also it helps solidify the relationship with customer ultimately leading to business growth as well because there is an increase in the volume of transaction and product penetration.

Reliability is about the ability to perform the promised service dependably and accurately Parasuraman et al. (1988) as cited in Mukesh et al (2009).The technology-based service is able to perform the required task effectively and efficiently with error-free performance. Functionality presents the reliability dimension in traditional services (Parasuraman et al., 1988), the reliability dimension in technology-based self-services (Dabholkar, 1996), the performance dimension in Internet services (Yen, 2005), and the system availability in electronic services (E-S-QUAL; Parasuraman et al., 2005). The synthesis is accuracy of outcomes (Dabholkar, 1996, p. 34).The functionality dimension is similar to the technical quality defined by Gronroos (1984) and Rust and Oliver (1994). Gronroos defined the technical quality factor of service quality as –what the customer is left with when the production process is finished as cited in Mboma (2010).

Credit Reference Bureaus (CRB)

Credit Reference Bureaus (CRBs) complement the central role played by banks and other financial institutions in extending financial services within an economy. CRBs help lenders make faster and more accurate credit decisions. They collect, manage and disseminate customer information to lenders within a provided regulatory framework – in Kenya, the Banking (Credit Reference Bureau) Regulations, 2008 which was operationalised effective 2nd February 2009 is one that guides the operations of CRBs . Credit histories not only provide necessary input for credit underwriting, but also allow borrowers to take their credit history from one financial institution to another, thereby making lending markets more competitive and, in the end, more affordable. Credit bureaus assist in making credit accessible to more people and enabling lenders and businesses reduce risk and fraud. Sharing of information between financial institutions in respect of customer credit behavior, therefore, has positive economic impact.

Mutebile (2008) observed that Credit Reference Bureau (CRB) and the associated Financial Card System (FCS) are major initiatives by Bank of Uganda and Government of Uganda through the Ministry of Finance Planning and Economic Development towards improvement of credit risk management in the financial sector. The establishment of the CRB is an important milestone in the development of Uganda’s financial sector. The absence of a CRB in Uganda has been a major bottleneck to the expansion of the volume of private sector credit. Indeed, Ugandan firms - large, small and medium enterprises consistently cite limited access to credit as one of the greatest barriers to their operations. Up to now, the infrastructure for information sharing and unique borrower identification has been non-existent. The Participating Institutions (PIs) like Commercial Banks, Credit Institutions and Microfinance Deposit-taking Institutions had no way of checking and sharing information on the credit history of borrowers. Therefore, PIs have continuously been exposed to high credit risk on account of inadequate information on borrowers’ creditworthiness. This has inevitably resulted in increased cost of borrowing, thereby making credit more expensive than it would otherwise have been.

Methodology

The study employed cross-sectional survey and correlation design and quantitative paradigm was also used since the study dealt with numerical data and statistical tools for analysis (Mugenda & Mugenda, 2003). The population of the study comprised a total of 600 respondents. Using Slovene's formula the minimum sample size of 240 respondents was computed. Self Administered Questionnaires were used for collecting data, a Content Validity of 0.85 was obtained and a reliability test result of 0.95 was obtained using Cronbach alpha coefficient as provided in SPSS. The Extent of technological use was conceptualized in to ATM and CRBs. Data was analyzed using descriptive statistics and students t-test, the mean and an item analysis for the Extent of technological use was based on numerical values and were interpreted as: (3.26-4.00 as very satisfactory, 2.51-3.25 as satisfactory, 1.76-2.50 as fair and 1.00-1.75 as poor). The analysis of student's t- test was used to test for the significant differences in the level of level of technological use between the selected banks.

Findings and Discussion

Demographic Characteristics of the Respondents

The objective on demographic characteristic of the respondents was intended to analyze the background of the respondents involved in the study. These included the respondents' gender, age groupings, educational level and bank.

Table 1

Category	Frequency	Percentage(%)
Gender		
Male	124	51.7
Female	116	48.3
Total	240	100
Age		
20-39 (Early adult hood)	193	81.3
40-59 (Middle adult hood)	38	15.8
60 and above (Late adult hood)	7	2.9
Total	240	100
Highest Educational Qualifications		
Certificate	23	9.6
Diploma	77	32.1
Bachelors	70	29.2
Masters	67	27.9
PhD	3	1.2
Total	240	100
Bank		
Global Trust Bank (GTB)	100	42
United Bank of Africa (UBA)	140	58
Total	240	100

Demographic Characteristics of the Respondents

From table 1 the survey results indicated that the male obtained almost 52% (51.7%) and female hardly 48% (48.3%). The majority of the respondents were in the age group of 20-39 which obtained 81.3%, followed by the age group of 40-59 which obtained 15.8% and lastly the age group which was above 60 obtained 2.9%. The survey results also indicated that the majority of the respondents attained diploma in educational level about 32%, followed by those who attained bachelor's degree which obtained 29%. The respondents who attained Masters Degree were the third with about 28%, fourthly were the respondents who attained certificates in education and scored about 10%, lastly were the respondents who attained Ph.D in educational level and scored 1%. In terms of response by bank Global Trust Bank score 42% and United Bank of Africa 58% as presented in table 1.

Extent of technological use

The mean and an item analysis were used for technological use. The Extent of technological use was categorized as ATM and Credit reference bureaus. ATM was further re-conceptualized as benefits of ATM use, problems with ATM use, common use of ATM, use of ATM abroad, reliability of ATM and the benefits of credit reference bureau. A total of 40 items were raised based on 4 point Likert scaled rating represented by numerical figures 1- 4 representing strongly disagree, disagree, agree and strongly agree respectively. Table 2 presents the results of the survey.

Table 2

Indicators	Mean	Interpretation
Benefits of ATM use	2.63	Satisfactory
Problems with ATM use	2.41	Fair
Common use of ATM	2.35	Satisfactory
When am abroad I transact using:	2.53	Satisfactory
Statements on reliability of ATM	2.56	Satisfactory
Benefits of CRBs to Borrowers	2.45	Fair

Extent of technological use

From table 2 the mean scores of benefit of ATM use was 2.63 which were denoted as satisfactory. The benefits of ATM was conceptualized in to ATM enabling customers to access currency which was satisfactory (with a mean = 2.70). This means that customers agree that ATM enables them to easily access money compared to the traditional method. The respondents agree that easy access to money was one of the benefits of ATM. This view was in congruency with Bankom report (2009). Provision of accurate service as a benefit to the customers (mean = 2.66) was satisfactory, suggesting that the respondents agree that they benefit from the accurate services provided by ATMs and this view was in line with Akinlolu (2010), time saving for customers as benefit of ATM use scored mean = 2.69 which were satisfactory the result was consistent with the study carried out by Moya, Balunywa and Nanyuma (2010) and Ross (1999).

Easy with drawing using ATM scored a mean of 2.66 which was interpreted as satisfactory suggesting that card holders can easily access with draws. On the issue of paying charges like withdrawal or general transaction costs in relation to use of ATM, the respondents' views disagreed with the item with mean = 2.45 which denoted fair meaning that the respondents were not much bothered about the charges of the service provider. It means that the charges were not much to the respondents compared to the charges on traditional banking transactions over the counter which view was in line with Kamau (2009). Easy access to ATM point, ATM being simple and convenient and ATM machines working through out and satisfying the needs or requirements of customers as benefit scored a mean of 2.66, 2.64 and 2.63 respectively. These three means were all rated satisfactory meaning that customer would easily access their ATM point and their requests like depositing services, withdrawal services, accessing mini statements were met by the use of ATM technology as asserted by Angumya (2011). The study further revealed that ATM cards having bank's logo and name was satisfactory with a mean = 2.63. The study suggested that the customers of the selected commercial banks in central Uganda agree that they are proud to move with logo and name of their bank on the ATM cards. In relation to ATM cards providing the customer with security since the customer only moves with the card and PIN in mind, the response mean score was 2.55 which implied that the respondents agree that the ATM card provides them with security.

The mean score for problems customers face when using ATMs was 2.41 which was denoted as fair. The problems identified included forgetting Personal Identification Numbers which scored a mean of 2.41 which was denoted as fair suggesting that the customers disagree with the item as problem, the loss of ATM cards scored a mean of 2.52 which was scaled satisfactory meaning that the respondents agree that the loss of cards is a problem which customers face, lack of knowledge of use of ATM, scored a mean of 2.30 which were rated as fair suggesting that the respondents agree that lack of knowledge of use is a

problem. The problem of ATM cards being captured by the ATM machine scored a mean of 2.47 which was fair suggesting that the respondents disagree that the capturing of the ATM cards is not a problem faced by the customers in the selected commercial banks. The mis- recording of transaction as a problem faced by the customers scored a mean = 2.32 suggesting that the mis-recording of transactions is not much and not a problem to the customers. The delayed transaction at ATM point as a problem scored a mean of 2.43 which denoted fair. This suggests that there is no delay at the ATM point when customers are transacting in the selected commercial banks.

The common use of ATM as a construct included use of ATM for depositing which scored a mean of 2.43 which suggested the customers do not frequently use their ATM for depositing, payment of routine bills like utilities, fees and taxes, the study realized that the respondents disagree using ATM for paying bills (mean = 2.42) which was denoted as fair suggesting that most of the customers of the selected commercial banks do rarely use ATM to pay their bills through the selected commercial banks, accessing mini statement was satisfactory with mean = 2.53 suggesting that the customers of the selected commercial banks agree that they use the ATM card to access mini statements from the selected banks. The use of ATM card to purchase items (e.g in shopping malls, stamps and tickets), donating to charity and cheque processing scored a mean of 2.28, 2.21 and 2.23 (also ranked as 4, 6 and 5) respectively. These were denoted as fair. The results suggest that the customers of the selected international banks rarely use their ATM cards to purchase items, donating to charity and process their cheques using ATM. This view was in contrast with Davies, Moutinho and Curry (1996) and Maxwell (1990) as cited in Musiime and Biyaki (2010) who noted that, automated Teller Machines (ATMs) are the most frequently used electronic distribution channel that allows bank clients to perform their main banking transactions, such as accessing their bank accounts in order to make cash deposits and withdrawals, as well as purchasing mobile cell phone prepaid credit 24 hours a day.

The use of ATM cards to transact when a customer is abroad scored a mean of 2.53 which was denoted as satisfactory suggesting that the customer frequently use their ATM cards for transacting when the customer is outside the country. For example the study revealed that visa cards had a mean score of 2.48, master cards a mean score of 2.38 and credit cards have a mean score of 2.44. All these were denoted as fair. The study therefore suggests that the customers of the selected international banks rarely use visa cards. While, electronic fund transfers scored a mean of 2.82, this was denoted as satisfactory. This suggests that the customers of the selected commercial banks in central Uganda often use electronic fund transfer to transact business when out side Uganda.

From table 2 in relation to reliability of the ATM machine, the study revealed that on the issue of the bank's ATM always work scored a mean of 2.45 which was denoted as fair. This means that the customer disagree with the view that the ATM always works. This means that there are times when the ATM machines of the selected commercial banks do not work. The views of the respondents on the ATM machine failing to give advice slip after transaction is common scored a mean of 2.43 which was also denoted as fair in this study. This meant that the ATM machines of the selected commercial banks give advice slip after transactions. On the issue of customers using their ATM card 24 hours, the survey results indicated a mean score of 2.45 which was also denoted as fair. This suggests that the view of the customers of selected commercial banks on the bank's ATM machines always working was not satisfactory. This means that the customers feel that some times the ATM machines go off. In relation to customers always experiencing error free transactions scored a mean of 2.53, which was denoted as satisfactory. This means that ATM machines were reliable and customers of the selected commercial banks would experience error free transactions, easy access to ATM point scored a mean of 2.66, which was satisfactory meaning the customers of the selected commercial banks can easily access their ATM points. Regarding personnel being ready to give help to customers in case of ATM card problem scored mean of 2.52, which was satisfactory suggesting that when customers are in problems with ATM facilities, the bank personnel are ready to offer help. In relation to ATM use saving the customers from the queuing in the banking hall scored a mean of 2.77 which was denoted as satisfactory. This means that the customers agree that the ATM saves them the time they would spend in the queue in the banking hall.

This means that the customer agree that it is reliable to use ATM to avoid queues in the banking halls. On the issue of ATM cards being easy to use by customers scored 2.64 which was rated as satisfactory suggesting that customers agree that it is easy to use ATM cards.

The benefits of CRB to borrower scored a mean of 2.45 which was denoted as fair. For example the survey on constructed of benefits of CRB included results CRB easing the process of borrowing for borrower with mean score 2.48, borrowers being guided on getting the loans that they are able to repay scored mean of 2.47, good reputational collateral to be used by borrowers to get better terms scored mean of 2.45 , borrowers being able to negotiate for low interests or larger loans as lenders know them scored mean of 2.39 , borrowing becoming easier as no big security may be required scored a mean of 2.42. All these benefits of CRB to borrower were rated fair. This suggests that the views of the customers disagreed with the benefits of CRB for the borrowers in the terms of accessing credit facilities like loans from the selected commercial banks in central Uganda.

On the other hand, CRB lowering credit facilities like loans as banks compete for the limited credit worth borrowers scored a mean of 2.50 which was denoted as satisfactory. This suggests that customers are satisfied that CRB will benefit customers by lowering the credit facilities as the banks compete for the limited credit worth borrowers. This view concurred in agreement with Oketch (2008) and Mutebile (2008) who observed that Bank of Uganda anticipates that commercial lending rates to the private sector will gradually reduce when the Credit Reference Bureau (CRB) becomes operational in June this 2008.

Significant difference between commercial banks in terms of extent of technological use

On the issue of analyzing the significant differences between commercial banks in terms of Extent of technological use, the commercial banks were conceptualized as GTB and UBA (binary categorical independent variable) coded as 1 and 2 respectively. The mean scores of items on Extent of technological use were used as numerical scores permitting the use of student t- test as a statistical tool for analysis (Afifi & Clerk, 1997).

Table 3

Extent of technological use	Category	Mean	SD	Critical t-value	Sig value	Interpreta on	Decision on H ₀
	GTB	2.7487	0.33743	4.231	0.000	Significant Difference	Rejection of H ₀
	UBA	2.3362	0.94058				

Significant Difference between Commercial Banks In Terms of Extent of Technological used

Table 3 indicates that the views of the respondents in terms of Extent of technological use in UBA (mean = 0.94058) is higher than in GTB (mean = 0.33743), suggesting a difference in the Extent of technological use. The significance of this difference was supported by the t value (t = 4.231) which was small since its sig or p value (0.000) was less than $\alpha = 0.05$ resulting in to rejection of the null hypothesis and acceptance of the alternative hypothesis to the effect that there is a significant difference in terms of Extent of technological use between the selected commercial banks in central Uganda at five percent level of significance ($p > 0.05$). This view was in congruent with the study done by Liebach and Flohr (2003) while looking at Customer-focused Technology and Performance in Small and Large banks realized that in terms of internal resources such as IT knowledge, large banks have adopted more Internet-banking applications and customer relationship management technology. On front-line support, which is based on a measure favoring formal reporting systems large banks also get a significantly higher score. However in terms of inter bank cooperation, although the authors expected small banks to be more involved in inter firm cooperation, this was hardly the case. The concluded that the connection was in significant, but this result did not exclude the possibility that banks of different sizes use inter firm cooperation for different

purposes. The study therefore concludes that the Extent of technological use varies within selected commercial banks in central Uganda.

Recommendations

The following recommendations were made based on the findings:

1. The Commercial banks, Bank of Uganda and Ministry of Finance and Economic Planning should review the policy, rate of charges on the use of ATM in Uganda. This could encourage the customers to use the ATM for transactions and makes the ATMs affordable for the customers.
2. The customer care offices of the selected Commercial banks should encourage the customers about the safety of their cards and inform them of the danger of losing their ATM cards.
3. The selected commercial banks should encourage and educate their customers about the various uses of their cards. These will ease payments for utilities for the customers and ease work on human tellers who keep receiving customers at counters to pay for other transactions.
4. The administration of the selected commercial banks should maintain their ATM points to enable them to work 24 hours. This can also be by having alternative sources of power like solar systems which can be used in case load/power shading of electricity at these ATM points.
5. Commercial banks and Bank of Uganda should educate the customers of banks on the benefits of CRBs in Uganda. This will help customers understand the importance of CRBs.

Limitation of the study and areas for further studies

One of the limitations of faced by the researcher was the unwilling behavior of the respondents in giving information. This study was carried on customers; it did not cater for the views of the employees of commercial banks to get balanced views. Since this study looked at customers, the study therefore recommends that a similar study can be done to collect the responses of commercial bank staff or workers.

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