

THE USE OF ATMS IN IMPROVING PERFORMANCE IN COMMERCIAL BANKS

Sumaya M Kagoya¹ and Dev Jani²

Abstract

Much as the ATMs are the machines currently making any bank client happy, Centenary still has a few ATM access points across the country. This study therefore seeks to determine the impact of ATMs on the performance of Centenary Bank. Using a cross-sectional strategy, the relationship between ATM Technology and service delivery (customer care), and banks' performance was studied. The findings show that customers were dissatisfied with the long queues, frequent ATMs failure, and poor connectivity of the Internet leading to poor service delivery and poor bank performance thus low profitability. Conclusively, if Centenary bank is to survive the taste of time in this ICT era and achieve a competitive advantage over its competitors, it should improve its performance through adopting/ embracing fully to the use of new ICTs/ATMs, improve service delivery, just in time while ensuring customer care hence profitability and sustainable growth. This study helps the commercial banks to improve on the level of online banking services in Uganda and what the potential issues or services are, which the bank should introduce to the customers to facilitate the customer in a better way and to compete with their rivals in banking industry as a whole.

Key words: Bank Performance, ATMS, Service Delivery and Customer care.

Introduction

According to Brynjolfsson and Hitt (2006), the use of ICT can help to cut down the costs of coordination, communication, and information processing, and to enable efficient service provision at lower cost. ICT is a strategic tool that enables users to be efficient and effective. ICT promotes the dual objective of finance institutions (centenary bank), which is the sustainability and outreach to the poor people. In Uganda, commonly used Information and Communication Technologies (ICTs) include Management Information Systems (MIS), Personal Digital Assistants (PDA), Automated Teller Machines (ATMs), Mobile Phones, and Smart Cards (Ssewanyana, 2009). MIS is important to Financial Institutions as it is the back office and backbone of any ICT innovation for finance sector services, as it can effectively support loan portfolio, transactions, operational growth, decision making, transparent and quality services to the client, time management, and increased outreach (Turaga, 2004). PDAs also can help banks to save time on micro lending, lower operational costs, reduce human errors, allow loan officers to increase outreach, reduce paper work, and standardize credit processes (Turaga, 2004). Despite the high diffusion of ICTs, there are challenges that are facing financial institutions. To begin with are the limited infrastructure in terms of mobile network and Internet bandwidth in most of the countries, which limits outreach to rural areas; secondly, illiterate clients not having personal identification nor credit history requires FIs to invest in more sophisticated technologies to serve them; thirdly, computer illiteracy of the borrowers; fourthly, limited funding to invest in the infrastructure, human resources and the ICT; and lastly, the high costs of administering small

¹ Makerere University Business School

Email: thumakago@gmail.com/skagoya@mubs.ac.ug

² University of Dar es Salaam Business School

Email: dev@udbs.udsm.ac.tz OR yogi_dev@hotmail.com

transactions on savings accounts, money transfer and loans to poor people provide low profit margins (Amin, 2007; Hishigsuren, 2006; & Mathison, 2005). With these challenges, there is a lot to be done for ICT to enable FIs meet their dual objectives of outreach and sustainability.

Take for example in Uganda Internet connectivity which is used by all banks and institutions is at level 1.5 given a scale of 0 to 4 according to Minges *et al.* (2001) Take for example in Uganda internet connectivity is at level 1.5 given a scale of 0 to 4 according to Minges *et al.* (2001) Thus with the diffusion of mobile telephone taking the case of Uganda cellular subscribers have increased from 3000 in 1996 to over 2.3 million by 2006. This has led to the development of short messaging service (SMS) as a mobile banking conduit by banking institutions take for example the centenary Bank in Uganda. SMS is considered a globally accepted wireless service initially adopted and developed for use in the GSM system. It enables transmission of alphanumeric messages between mobile subscribers and external systems. However questions about data confidentiality, user authentication and data integrity Arise, which affects customer satisfaction due to uncertainty surrounding the usage. According to Ashish (2002), the major attributes of customer satisfaction are product quality, product packaging, keeping delivery commitments, price, responsiveness and ability to resolve complaints, overall communication, accessibility and attitude. Studies have shown that 70% of customers change service providers due to poor service quality, 15% due to product quality and another 15% due to price.

While ATMs are being rolled out by a number of banks, their major limitation is cost and rural outreach. Mobile phone technologies have great potential although the ‘cash part’ of the operation presents a challenge. Although the level of e-readiness of developing countries is still uneven, the awareness of ICTs to their development prospects is growing rapidly (Ssewayana, 2008).

The cost of delivering financial services in both developing and developed countries has always been an aspect of concern to financial institutions. Financial institutions incur exorbitant operating costs in the course of providing services to their clients (Barts, 2007). ATM technology requires for banks to take advantage of ATM, it is important to understand whether the net contribution of ATM can cater for the future investment requirements for the ATM to remain operational.

According to centenary bank annual report, 2006, the average ATM bank charge per transaction is UGX 2000. Given the initial cost of the ATM of UGX 60,000,000 an average ATM machine should serve 30,000 items before paying back. Centenary bank has 340,000 clients and if 10% of these clients embrace ICT technology, the bank can operate about 10 ATM machines this makes installation of the machine very expensive. This is worsen by the fact that Majority of the Uganda population (i.e. more than 80%) lives in rural areas and 34.2% live below the absolute poverty line meaning they cannot afford banking services. In the urban areas, the people living below the poverty line form 13.7% (Ssewanyana and Okidi, 2007). This affects performance of the bank in terms of profitability. For example according to centenary bank, the bank has operational expenses of 2010 went to 31.5 b from 26b in 2009 which was due to raise in impairment cost , losses and advances which more than doubled to 6.4 b from 2.7 b in 2008. "The turbulence in the financial markets observed through 2009 is envisaged to continue in the year 2010 thereby extending pressure on consumers, thus affecting customer satisfaction" (Jukko, 2010).

The introduction of the ICT technology was anticipated to make banks leaner, profitable and competitive due to the resultant convenience, reliability, suitability and accuracy (Phillip, 1994)

thereby aiding banks to retain and attract clients, provide additional innovative products/services to meet consumer – oriented banking needs and solve the congestion in the banking halls. However, the Post ICT era has continually been characterized by client dissatisfaction, queues have continued to occur in banks and there still is a need for a customer service by the banking officer (Juuko, 2010). Some banks like post bank Uganda and Diamond trust bank Uganda(January, 2019), took long to embrace the ATM visa cards because of the costs associated with the acquisition, installation, maintenance and upgrade the benefits of ICT technology should be isolated in order to determine its contribution. This study geographical scope was limited to Centenary Bank-Uganda, which was the ideal choice dealing with the majority of people at lower levels including rural farmers and majority low income earners. This was in line with the target study population. More so, given the time and financial constraints, this study could not cover all other banks in Uganda, hence leaving room for other future researchers to consider other banks to see whether the findings can be generalized and if not, to find the causes of the differences. This study aimed at examining the impact of ATM usage on the performance of Centenary Bank. Using a cross-sectional strategy, the relationship between ATM Technology and service delivery (customer care), and banks' performance was studied.

Research Gap

The introduction of ATMs in the banking sector was meant to improve service delivery as assign of customer care in Financial Institutions; however, in the centenary bank this has not been the case as there are still long queues, poor Internet connectivity which has resulted to failure of ICT, poor service delivery, customer dissatisfaction, poor bank performance as regards profitability hence provoking a number of clients to leave the bank as seek alternative means (Jukko, 2010). In a report by Okwi (2014), Centenary bank has joined the Inter-switch East Africa network in Uganda adding yet another innovation in enhancing their customer service; however, most of their customers have little knowledge about this and cannot afford the inter-switch charges. More so, other new innovations like QR payments, ATMs that allow customer to deposit money, agent banking and so many others, which the commercial banks are trying to adopt, are in their infancy stage, most customers are not aware of these service, others have little trust in them especially Internet banking, which is also affected which by the poor IT infrastructure, power shortages and high Internet charges. It should be recalled that in some branches where they are used, the queues still exists to a certain extent in the commercial banks in Uganda. Therefore, this study is aimed at investigating the use of ATMs in improving Centenary Bank Performance in terms of customer care and service delivery so as to reduce the gap.

Conceptual Frame Work

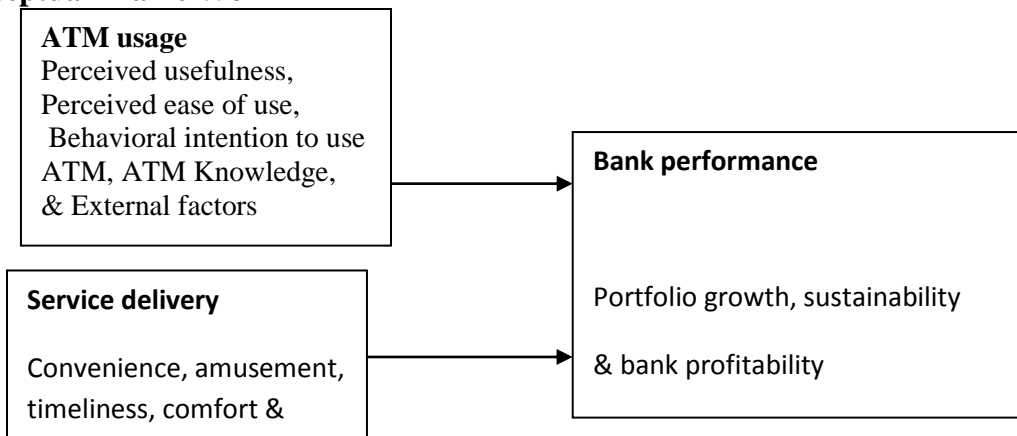


Figure 1: Conceptual frame work compiled from empirical and theoretical literature review

Literature

ICT Adoption in Commercial Banks

The impact of ICT in banking is categorized into three categories: Globalization, deregulation, and consolidation (Berger & Mester, 2009). First, commercial banks can outreach remote clients via electronic communications devices to the extent that foreign customers are able to process transactions across national borders. Thus, the banking markets are marching toward globalization. Second, accompanying globalization, deregulation in the banking industry prevails in many countries in order to improve the competitive strength of the financial industry of a nation. Third, new technologies also enlarge the capacities of financial institutions and thus improve their cost efficiency. Therefore, more and more commercial banks have merged together to attain a higher level of efficiency than before (Berger & Mester, 2009). These issues on e-banking are international. Since the consolidation of financial institutions may take place across countries with different regulatory rules, the international supervision on the banking regulation is urgent. In other words, we must set up proper international banking regulations in order to satisfy the needs of the international e-banking. Via the efforts of international regulations such as the Basel Accord, customers can be securely protected, transactions can be smoothly processed, and operations are tightly monitored by the supervisory bodies who join this Accord. The Basel Accord requires commercial banks in member countries to maintain adequate capitals and disclose related information to the public. Consequently, commercial banks become more transparent across countries and thus, more efficient than ever before (Wang & Schmidt, 2002).

ICT and Finance Institution in Developing Countries

Studies have established that small depositors and small businesses are good savers, and they always want to leave their money intact, unless they have a serious need for money (Asian Development Bank, 2000; Sanchez, 2003). They are also generally diligent in paying off their obligations. The loan recovery is usually more than 95% (Feiner, 2003). These developments have spurred the growth of financial institutions. The microfinance sector has grown exponentially in the last decade with a turnover estimated at US\$2.5 billion worldwide, and it is expected to grow further with the introduction of mobile banking. The World Bank has estimated 7000 FIs globally serving 16 million people in developing countries; and 13 million are micro creditors with US\$7 billion in outstanding loans with a repayment rate of more than 95% (Kashyap, 2009). The impediments to the success of FIs in developing countries are the

scalability, sustainability, outreach, and the impact of the various microfinance initiatives (Kashyap, 2009). These impediments can only be overcome through the usage of ICT to maximize outreach and sustainability (Kashyap, 2009; Gibson and Meehan, 2002). ICT is an enabler of affordable solutions to FIs. It can enable FIs to reach remote rural based clients in an effective low cost manner. Rao (2003) observed that for an FI, transaction costs are one of the crucial bottlenecks to increase profits and to achieve long-term sustainability. ICT has been found to alleviate some of the problems faced by FIs through provision of secure, low cost, and reliable means of transactional data capture and successful transfer FIs (Filpo, 2006).

ICT usage and Service Delivery in centenary Bank

Dramatic changes are happening in financial products and services. Other than the traditional banking business of liquidity provision, banks have acquired competencies to perform variety of other financial and non-financial activities. Deregulation and innovation have opened up the financial sector. Bankers must ensure that they are ready for this technological change (Rajan, 1996). Advancement in technology prompts banks to drop the use of traditional branches and form new partnerships and delivery channels.

The Internet and ATM seems to be the most popular delivery channel. Factors such as security of personal data, reliability and difficulties in using the Internet have been identified as the determinants of electronic banking adoption (Needle, 2006). Most banks in Nigeria do provide e-banking facilities to retail customers, particularly overseas banks and a few local banks. Preliminary observations indicate that, while some customers use these e-Banking facilities on the Internet, it has still not grown to a significant level. In this context, one could see some factors that limit the ICT usage. One of them is the issue of people not having access to the Internet. For example, many people in developing countries do not have access to computers. Also there is a limitation as to how many people can use the services that organizations can provide through their websites (Robinson & Mahony, 2003). The discussions are going on over the concept of a minimum computing skill level as an important outcome of education. Numerous terms are being used to describe this set of skills. The more familiar descriptions have included such terms as, computer awareness, computer literacy, information literacy, and information and communications technologies (ICT) literacy. There is a need to develop some form of benchmark that could be used to assess levels of ICT literacy (Oliver & Towers, 2000). The drive towards self-service and automated customer care has allowed organizations to reduce costs and handle an ever-increasing number of consumer transactions efficiently.

Impact of ICT on Centenary Bank Performance

There are many factors governing the performance of decision-making units that are to be considered in benchmarking (Wainwright & Yarrow, 2005). Some of them can be listed as customer attitude towards ICT usage scope of ICT applications used, level of ICT service quality, ICT security level, complexity of ICT, unreliability of ICT job satisfaction of the staff, profitability, considering ICT as a strategic tool, level of customer relationship management, customer satisfaction, cost reduction, operational efficiency and operating efficiency. Arasli (2005), comparison of service quality states that the ICT usage on branch performance can be measured using the Internet as a marketing intelligence tool, perceived usefulness and perceived ease of use, system quality (information quality), attitudes towards web retailing, compatibility, personality, working experience, educational level, Internet access availability, training received and frequency of use and trust Davis (1989).

ICT adoption and service delivery in Centenary Bank

Customer care ideally is a service; Services are deeds, processes and performances (Zeithaml & Bitner, 2003). Broadly speaking, services include all economic activities whose output is not a physical product or construction is generally consumed at the time it is produced and provides added value in forms (convenience, amusement, timeliness, comfort or health) that are essentially intangible concerns of its first purchaser (Quinn, Baruch & Paquette, 1987). Service has been entering every part of life from the most essential demands (such as eating, sleeping) to other entertainment needs (such as sport, traveling, cooking, and telecommunication). In other words, we readily define bank, hotel, restaurants, and beauty salon as being service-based business. Similarly said by Hung (2004) service is an activity that impacts all parts of our life. Since we were born, our lives have relied on services (such as hospital service, education service, retail service etc. Technology is invented by man to manipulate his social and physical environments. The sociology of science and technology made us to understand that, technology came with both manifest and latent intents. The manipulation of computer and other information and communication technology (ICT) to defraud banks gives more insight into the latent function of technological revolution (Wang & Schmidt, 2002). Folami (2002) said that majority of frauds committed in the banking sector are usually committed through the use of cheque, while few others are by cash theft and electronics transfer, and lately through computer manipulation. Negotiable securities was stored magnetically and electronically as data inside computer and transmitted over communication circuits from one computer to another.

ATM usage and profitability

Online banking is the emerging issue, which is expanding rapidly in banking industry especially in Asian countries. Extant literature on E-banking or online banking normally focused on the customers' perception about IB services their advantages or flaws and the areas of further improvement. Some of them are given below. Gikandi and Bloor (2010) investigate the factors that influence the adoption and effectiveness of e-commerce in retail businesses in Kenya. Two surveys were carried out (Initial and follow-up) in the years 2005 and 2009, respectively, which involved banks controlling approximately 90% of formal retail banking in Kenya. The purpose of the follow-up surveys is to monitor the trends in 4 years (2005–2009). The result shows that there was a drastic shift in the importance attached to some e-banking drivers between years 2005 and 2009. They concludes that e-banking has matured in developed countries, it would be expected that banks in developing countries would learn some lessons from the developed countries and be spared some of the uncertainties undergone by their counterparts in technological development. Akinci *et al.* (2004) conducted the study to develop an understanding of consumers' attitudes and adoption of Internet banking among sophisticated consumers. Users and non-users of Internet Banking (IB) were examined based on a random sample differ with respect to academicians, demographic, attitudinal, and behavioral characteristics. The analyses revealed significant differences between the demographic profiles and attitudes of users and non-users. They further investigated the IB users and three sub-segments were defined according to a set of bank selection criteria. Finally, based on the similarities between various Web-based bank services, four homogeneous categories of services were defined by the researcher.

Machauer and Morgner (2001) conclude four clusters of German bank consumers. These were “transaction oriented”, “generally interested”, “service oriented”, and “technology opposed” groups. In the USA, Barczak *et al.* (1997) underlined the consumer motives for use of technologically based banking services and distribution channels and found that customers could

be clustered on their money management philosophies. Their results describing four motivational clusters including “security conscious”, “maximizers”, “instant gratification”, and “hassle avoiders” indicated that the four motivational segments had different attitudes and behaviors towards different banking technologies.

Malhotra and Singh (2010) conduct an exploratory study and make effort to present the current status of Internet banking in India and the extent of Internet banking services offered by Internet banks. In addition, it seeks to examine the factors affecting the extent of Internet banking services. The results reveal that the private and foreign Internet banks have performed well in offering a wider range and more advanced services of Internet banking in comparison with public sector banks. The study also highlighted the determinants affecting the extent of Internet banking services, size of the bank, experience of the bank in offering Internet banking, financing pattern and ownership of the bank are found to be significant.

Methodology

The study adopted a cross-sectional research design strategy. Using both Qualitative and Quantitative methods, data was gathered from the respondents. The sample frame was mainly the employees and the customers at Centenary Bank Uganda. The population targeted was 34548 in which the researcher sampled 380, 48 of which were employees and 332 clients respectively. The researcher used simple random sampling.

Measurement of variables

Standard questionnaire on four-likert scale, ranging from “strongly agree to strongly disagree” was used to get quantifiable primary data from respondents.

Reliability and validity of the instrument

The questionnaire was designed and pilot tested to establish validity and reliability. The reliability and validity of the instrument was established by cornbachs co-efficient alpha variable Cronbach alpha coefficient test (1946). Variables with corn-bachs co-efficient alpha valve for less than .5 were not used.

Variable	Cronbach's Alpha	Number of items
Perceived usefulness	.710	11
Perceived ease of use	.744	8
Behavioral intention to use	.817	4
Knowledge to use the system	.709	5
External factors	.750	7
Adoption ATM	.728	4

Validity: The developed questionnaire was given to three experts for independent review. Their comments were adopted.

Reliability of instrument: After collecting data from the pilot test, it was entered using SPSS and computed using the Cronbach Alpha co-efficiency.

Population distribution.

Stakeholders	Target sample Size	Target sample Size
Commercial Bank	Staff	Clients
Centenary Banks Jinja	24	232
Main branch Kampala	24	100
Total	48	332

Table 1: Envisaging population distribution.**Presentation Of The Findings****Relationships Between Variables**

The results in the table below indicate the Pearson (r) relationships between variables. If two variables are negatively related, then an increment in one causes a decrease in the other. Finally, positive relationships are where an increment in one causes an increment in the other.

	<i>Service Delivery</i>	<i>ATM Usage</i>	<i>Bank Performance</i>
<i>Service Delivery</i>	1.000		
<i>ATM Usage</i>	.331**	1.000	
<i>Bank Performance</i>	.279*	.761**	1.000
** Correlation is significant at the 0.01 level (2-tailed).			
* Correlation is significant at the 0.05 level (2-tailed).			

Table 2: Showing the relationship between the study variable**The impact of Service delivery and Bank performance**

A positive relationship was observed to exist between Service delivery and Bank performance ($r = .279^*$, $p < .05$). If the bank delivers the right kind of service to the customers, the bank performance was enhanced for instance in terms of profitability.

ATM usage and Bank performance

A positive relationship between ATM usage and Bank performance ($r = .761^{**}$, $p < .05$) an indicator that presence of good and reliable ATM in the bank performance of the bank increases.

ATM usage and SERVICE Delivery

A positive relationship was observed to exist between Service delivery and Bank performance ($r = .331^*$, $p < .05$). If the bank has good ATM, the bank service delivery was enhanced for instance in terms of customer satisfaction.

Customer Quality Perceptions

Customer Quality Perceptions findings were as indicated in the table below

	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Deviation</i>
Please rate the quality of our ATM services:	61	1.00	4.00	2.60	0.88
Please rate the quality of our customer care services:	61	1.00	4.00	2.90	0.88

Please rate the quality of our information and customer services:	61	1.00	4.00	2.53	0.85
How would you describe the banking charges?	61	1.00	4.00	2.48	0.99
How would you describe the services of the bank offers?	61	1.00	4.00	2.65	0.92
Please describe the best feature of the bank:	61	1.00	4.00	2.78	0.98
Please describe the worst feature of the bank:	61	1.00	4.00	2.10	1.00

Table 3: Showing Customer Quality Perceptions**Source: Primary data**

The results in the table above indicated that the quality of ATM services, the quality of our customer care services and the quality of our information and customer services were all lacking since they were assigned a rating of less than 3.00 yet the maximum rating was 4.00 which would indicate that the service attribute was ranked as “best”.

Customer Perceptions**Customer Perceptions Results**

	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Deviation</i>
How do you rate our responsiveness in dealing with you and your problem	61	1.00	4.00	2.81	0.83
How do you rate our professionalism in dealing with you and ATM management	61	1.00	4.00	2.59	0.95
Do you receive any technical support when ATM breaks down.	61	1.00	4.00	2.57	1.01
How do you rate the technical competence of IT section and their response time	61	1.00	4.00	2.56	0.96
How do you rate our ATM services	61	1.00	4.00	2.53	0.93
Do they meet your needs and expectations regarding quality and performance of ATM	61	1.00	4.00	2.80	0.91
How do you rate our delivery on time performance and our commitment to meet your delivery expectations	61	1.00	4.00	2.73	0.86
How do you rate the competitiveness of ATM service	61	1.00	4.00	2.55	0.96
Do they represent best value for total cost of lifetime ownership	61	1.00	4.00	2.74	0.95
How do you rate our approach to quality management to ensure complete customer satisfaction	61	1.00	4.00	2.52	0.98

Table 4: Showing Customer perceptions results. Source: Primary data

The results in the table above indicated that Customer Perceptions, relating to responsiveness, professionalism and technical support are all lacking (Means < 3.000). Something has to be done by the bank to improve these stated service attributes.

Regression analysis of adoption of ATM in Centenary Bank

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.244	.308		7.274	.000
Perceived usefulness	-.033	.083	-.023	-.398	.691
Perceived ease of use	.393	.091	.283	4.339	.000
Behavioral intention to use	.279	.072	.253	3.889	.000
Knowledge about the system	-.057	.076	-.046	-.755	.451
External factors	-.115	.069	-.081	-1.676	.095
<i>R Square</i>	.0194		<i>F Statistic</i>		18.21
<i>Adjusted R Square</i>	.183		<i>Sig.</i>		.000

Table 5: Showing regression analysis of adoption of ATM in Centenary Bank (source: primary data)

The findings showed that **adoption of ATM** for service delivery was significantly influenced by Perceived ease of use (beta = .283, $p < .01$) and Behavioral intention to use (beta = .253, $p < .01$). On the other hand **adoption of ATM** service delivery was not found to be influenced by Perceived usefulness (beta = -.023, $p > .05$), Knowledge about the system (beta = -.046, $p > .05$), and External factors (beta = -.081, $p > .05$). This implies that perceived ease of use and behavioral intension greatly influence the ATM service delivery usage and should therefore be highly considered.

Discussion of Findings

The impact of Service delivery and Bank performance

There was a positive relationship between Service delivery and Bank performance. If the bank delivered the right kind of service to the customers, the bank performance would be enhanced in terms of profitability.

The relationship between ATM usage and Bank performance

There was a positive relationship between ATM usage and Bank performance. Further work have to be carried out to determine whether measures such as ATM usage , user satisfaction could be used as an indicator of business performance attributed to the use of ATM in a competent and innovative way (Wainwright and Yarrow, 2005).

A research carried out in the UK has used the “Growth Accounting Approach” to multi factor productivity estimation to estimate the impact of ATM on productivity (Robinson & Mahony, 2003; Mahony et al. 2005). Identification of suitable metrics to assess ATM impact on business performance is a difficult task. In this study, findings revealed that there was a positive relationship between ATM usage, Bank performance were by increase in bank deposits and withdraws by using ATMS by customers lead to bank profitability in a way that each transaction carried using the ATM carries a bank charge and the more the transaction performed, the more money the bank charge hence increased profitability.

The relationship between ATM usage and Service Delivery

There was a positive relationship observed to exist between Service delivery and Bank performance. If the bank has good ATM usage, the bank service delivery will be enhanced. For instance in terms of customer satisfaction .There is a need to develop some form of benchmark that could be used to assess levels of ATM literacy (Oliver & Towers, 2000).Customer care ideally is a service; Services are deeds, processes and performances (Zeithaml & Bitner, 2009). Broadly speaking, services include all economic activities whose output is not a physical product or construction is generally consumed at the time it is produced and provides added value in forms (convenience, amusement, timeliness, comfort or health) that are essentially intangible concerns of its first purchaser (Quinn,Baruch & Paquette, 1987). Service has been entering every part of life from the most essential demands (such as eating, sleeping) to other entertainment needs (such as sport, traveling, cooking, and telecommunication). In other words, we readily define bank, hotel, restaurants, and beauty salon as being service-based business. Similarly said by Hung (2004), a service is an activity that impacts on all parts of our daily lives. Since we were born, our lives have relied on services (such as hospital service, education service, retail service, etc).

Study Implications

To the banking industry will be able to use these findings to improve on their service delivery via good customer care, which will increase on bank performance hence profitability. Also the banks will involve take the initiative to make customers aware of the new services they have and train them how use them efficiently hence increasing bank performance and profitability. **The policy makers.** The government will use the study findings to enact ICT laws, policies so as bank customers can build trust in the banking sector in regard to the information and ATM Usage. Additionally, they policy makers will improve on the IT infrastructure and offer free ICT training services Through ICT experts including ATM Usage, and awareness and proper usage of new innovations like Internet banking, QR payments and other e-cash payment systems so as to increase its tax base from revenue collections. **To the Internet service providers.** These should use these findings to improve on the Broad Band, and ensure that there is Internet service 24/7 throughout the year. **To the academia.** The future researchers will use these findings and incorporate other variables not included in this study like mediation and moderation effects which may influence ATM usage and bank performance, ATM usage and Bank Profitability, mediated by bank management support.

Conclusion

The bank should deliver the right kind of service to the customers; the bank performance would be enhanced in terms of profitability. The bank should provide the right kind of ATM service to the customers; the bank performance would be enhanced for instance in terms of profitability. If

the bank has good ATM services, the bank service delivery would be enhanced in terms of customer satisfaction and loyalty.

Recommendations

Considering that there is a significant positive relationship between bank performance and service delivered by ATMs. Centenary should invest more in their ATM for them to cope with the changes in the business environment. This should also help the bank know that simply increasing access to ICT like ATM is not enough without equipping those responsible for using and passing on the knowledge will not help improve performance but if the bank delivers the right kind of service to the customers, the bank performance will be enhanced in terms of profitability. This should also help the bank know that simply increasing access to ICT like ATM is not enough without equipping those responsible for using passing on the knowledge will not help improve performance. This study recommends the commercial banks in general and centenary bank in particular to apply the operation research models like the queuing models to reduce on the waiting time hence solving the queuing problem. The queue in the bank in this study, findings was not caused by the bank policy but by lack of ICT Skills and lack of awareness of new banking innovations like Internet banking by the customers, most of whom, were rural farmers with low levels of education.

References

- Akinci, S., Aksoy, S & Atilgan, E. (2004). Adoption of Internet banking among sophisticated consumer segments in an advanced developing country. *The International Journal of Bank Marketing*. Vol. (22). No. 3, pp. 212-232.
- Amin, N. (2007). Enabling the expansion of microfinance using information and communication. *Applied Corporate Finance*, 9(2): 114-128.
- Arasli, H. (2005) *A Comparison of Service Quality in the Banking Industry*. Some Evidence from Turkish- and Greek speaking areas in Cyprus.
- Asian Development Bank. (2003). Finance for the Poor: *Microfinance Development strategy*.
- Davis F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of Information Technologies, *MIS Quarterly*, 13(3): 319-40.
- Feiner S.F. (2003). *Microcredit and Women Poverty*. Retrieved on 26/6/2015. Accessed from: <http://www.stwr.net/content/view/1378/37/>
- Gikandi W.J & Bloor.C. (2010). Adoption and effectiveness of electronic banking in Kenya. *Elsevier Science Publishers B. V. Volume 9 Issue 4, July, 2010, Pages 277-282*.
- Hitt, L.M. & Brynjolfsson, E. (2006). *Productivity, Business Profitability, and Consumer*
- Hung N. Bui & Loan T. Q. Nguyen (2004), *Quality Management*, Ho Chi Minh City- National University Public House
- Kashyap, S. (2009), *Microfinance: Leveraging Information Communication Technology*. Retrieved on 12/10/2009 from Web site: <http://www.indiamicrofinance.com/microfinance/microfinance-technology/microfinanceleveraging-informationcommunication-technologyict-part-i.html>
- Mahony, O. M, Robinson, C. & Zwick, T. (2005). Productivity, workplace performance and ICT: Industry and firm-level evidence for Europe and the US. *Scottish Journal of Political Economy* 52, 359–86.
- Malhotra, P. & Singh, B. (2010). An analysis of Internet banking offerings and its determinants in India. *Internet Research* Vol. 20 No. (1), 2010 pp. 87-106

- Minges, M. (2001) Forthcoming. *“Exploring the Relationship Between Broadband and Economic.”*
- Needle, D. (2006). *Business in Context: An introduction to business and its environment*, 4th edition,
- Okwi, D. (2014). *“Centenary Bank joins Inter-switch, gives customers access to 280 ATMs”*. Accessed on 20/10/2009 from <http://www.adb.org/Documents/Policies/Microfinance/financepolicy.pdf>
- Oliver, R & Towers, S. (2000). *Benchmarking ICT Literacy in Tertiary Learning Settings*, ASCILITE Quinn J.B., Baruch J. J. & Paquette P. (1987). *‘Technology in Services’ Scientific American: Vol.*
- Robinson. C & Mahony M.O. (2003). The Growth of ICT and Industry Performance, National Institute Economic Review, 184(60). Competence and Performance in Small Firms, *The International Journal for Library and Information Services*, 6(1): 39-52.
- Rajan R.G. (1996), Why banks have a future?: *Towards a new theory of commercial banking.*
- Ssewanyana, J.K. & Busler, M. (2007). Adoption and usage of ICT in developing countries: A case of Ugandan firms.
- Ssewanyana, J. K. (2009) "ICT Usage in Microfinance Institutions in Uganda," *The African Journal of Information Systems: Vol. 1: Iss. 3, Article 3. Three Different Measures of Information Technology Value. MIS Quarterly*, 20:121-142. Accessed on <http://digitalcommons.kennesaw.edu/ajis/vol1/iss3/3> *Surplus.*
- Turaga, J. (2004). *Opportunities and challenges in India “Kuch Apru Sock aur Kuch Jugaad”*: Crafting
- Wainwright D.G.G.M. & Yarrow, D. (2005). *Towards a Framework for Benchmarking ICT Practice.*
- Wang, Hung-jen & Schmidt, P. (2002). *“One step and two step estimation of the effects of exogenous variables on technical efficiency levels,” MPRA Paper 31075*, University Library of Munich, Germany, revised Mar 2002. York: McGraw-Hill Higher Education.
- Zeithaml E, & Bitner. (2003). *Customers’ Expectations and Perceptions Of Service Quality.*
- Zeithaml, V, A. & Bitner, M, J. (2009) *Service Marketing: Integrating Customer Focus across the Firm*, New