ADOPTION OF TECHNOLOGY-DRIVEN BANK TELLER SERVICES AND INVESTIGATION ON CUSTOMER SATISFACTION

A. R. Ajiboye[1]*, F. E. Usman-Hamza[1] A. O. Ameen[1] and I. T. Ishola[2]
[1]Department of Computer Science, University of Ilorin, Kwara State, Nigeria
Department of Information Technology, National Open University of Nigeria, Ilorin Study Centre, Nigeria
*Corresponding author: ajibabdulraheem@gmail.com

Abstract: The integration of Information and Communication Technology (ICT) into the banking system and service provisions in recent times has contributed significantly to the overall growth of the banking sector. The adoption of technology has indeed changed many conventional approaches used in the system several decades ago and in particular, the way banks and their customers transact businesses. This study investigates the level of customer satisfaction as a result of integration of technology into the bank teller services. In order to achieve this central goal, a survey was carried out, which involve the use of questionnaire as the major instrument for data collection. This study was guided by the Diffusion of Innovation Theory and the questionnaire administered was carefully designed and distributed to some bank customers of 8 different banks within the Ilorin metropolis, Nigeria. Specifically, a sample population size of about 800 people took part in the survey. The data collected from the respondents were analyzed using Statistical Package for Social Sciences (SPSS). Hypotheses were formulated and tested using T-test, ANOVA and Duncan Multiple Range Test (DMRT). Findings from this study reveal some useful information which can further add an insight into the nature of awareness about the satisfaction and challenges being experienced by bank customers. Also, based on the findings from this study, some suggestions are recommended for sustainable development of banking system most especially in bank teller services.

Keywords: ATM, ICT, bank tellers, technology integration, customer satisfaction

Introduction

Information and Communication Technology (ICT) has become the heart of banking sector, while banking industry is the heart of every robust economy (Abubakar & Tasmin, 2012). Most banks have therefore adopted the use of ICT for virtually all their basic transactions in order to catch up with the service improvements expected in their daily operations. Bank customers most times measure the services of their bank on timely completion of transactions and their record keeping strategy. There are several instances where the adoption of some Information Technology applications, most especially in the banking sector has greatly helped in fuelling the economy; one of such technology is the Automated Teller Machine (ATM). The adoption of the machine has greatly increased the community efficiency, which led to a reduction in costs, improvement of quality, and increase in the added value to customers (Kamel, 2005). A related study shows that the use of ATM relieves the workload of bank tellers as reported in (Sanda & Arhin, 2011).

Similarly, the use of this machine equally reduces the gridlock of bank customers usually experienced towards the end of each month when workers do visit their bank to withdraw their monthly salary. In particular, the banking industry in the early '80s in Nigeria render banking services that mainly characterized by manual approach; ledger keepers at back office, cashiers providing front desk service, bulk ledger cards, and cash registers among others. In most cases, customers were given tallies for the purpose of communication and attendance monitoring during the withdrawals or other services that may be required by the customers. This is not only tedious, but also very strenuous, slow and most often leads to inaccurate and unreliable records.

There are several ways by which information technology is transforming the banking sector and this has been bringing positive impacts on the economy and fosters development. The information Technology is used in the banking industry to achieve this by enabling access to loans, relevant information and microcredit for poor farmers that lives in the rural communities (Kamel, 2005). The limitations of manual banking highlighted above in most cases results to customer complaints, slowness in service provision, long queue and high operational costs, etc. These limitations reduce reliability of financial services as regards to accuracy and completeness. Relying on such information results into managers making poor decisions, this led to costs and administration problems, as evidenced in the closure of many banks in the '90s. The drawbacks in manual bank teller service provisions gave rise to technological means, which is more efficient and a fast way of serving customers.

The introduction of ATM which is an electronic banking outlet that allows bank customers to complete basic transactions without the aid of a bank representative or teller is simplifying banking operations. Also in Nigeria, the advent of computerization in the banking sector in the late '80s turned around the conventional approach of record keeping. The automation at the time makes the book of ledgers and cash registers to be gradually replaced, as the use of personal computers becomes the popular device used by the tellers for transaction processing. Subsequently, the emergence of several useful application software especially web applications and many other new inventions being deployed to banking operations has greatly helped the e- transactions. This has really reduced the physical presence of customers around the bank premises as transacting businesses with bank become realistic irrespective of locations.

Automated Teller Machines are placed not only near or inside the premises of banks, but also in locations such as shopping centers/malls, airports, grocery stores, petrol/gas stations, restaurants, or any place where large numbers of people may gather and transact business. The basic services of Automated Teller Machine today include functions such as: cash deposit and withdrawals, balance inquiry, bill payment, money transfer, airtime purchase and others on a 24 h basis. Thus, with the appearance of ATM, some limitations of time wastage have been resolved.

There are a number of technologies used by banks to authenticate the customers' account in the course of using e-banking system. The idea is to provide optimum security for the transactions being performed. Some of the popular ones among them are One Time Passwords (OTP), digital certificates using a Public Key Infrastructure (PKI), physical devices such as smart cards, biometric identification, and others. The introduction of tokens, especially for e-banking is one of the authenticating approaches aimed at ensuring a secured transaction. A token device mainly generates few

FUW Trends in Science & Technology Journal, www.ftstjournal.com
e-ISSN: 24085162; p-ISSN: 20485170; April, 2020: Vol. 5 No. 1 pp. 184 – 189

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numeric characters to be used within a few seconds; it is capable of performing at least one payment transaction.

The degree of customer satisfaction is a key factor and important element in business strategies. Researchers have carried out some empirical studies with a view to unveiling some findings in this area of research but in a different dimension. According to a study reported in (Akanni *et al*., 2014), the issue of customer satisfaction is of great importance to organizations such that, the services of consultants are often employed in order to achieve a comprehensive characteristics of organizations that consistently please their customers.

The main objective of the study reported in (Kumbhar, 2011), was to investigate some key factors that have influenced bank customers as regards the ATM services provided by public and private sector banks. This and similar other studies have been able to reveal some useful findings that can further improve banking operations and services.

The focus of the present study was to build on these existing findings for a better and promising service provision in the banking sector, most especially within the Ilorin metropolis, Nigeria. Also, this study aims at unveiling the challenges being encountered by bank customers as a result of some technologies adoption in recent times and to make some useful recommendations based on findings of this study for improved services.

Technology-driven bank teller services

Information technology in recent times has become an invaluable and a powerful tool that is rapidly driving development, supporting growth, promoting innovation, and enhancing competitiveness (Kamel, 2005). The use of human bank teller services is becoming obsolete, very slow and prone to some avoidable errors. Recently, online banking has taken over most of the transactions that would necessitate customer physical presence in the bank. Even when customer choose to be physically present, Automated Teller Machines (ATM) is always preferable for both cash deposit and withdrawals.

ATMs are the first well-known machines to provide electronic access to customers (Hota, 2012). The introduction of the machine has brought a substantial reduction in the inflow of customers within the banking hall in recent times. The machine is designed to perform the most important function of banking operations and operated using valid plastic card that has in-built microchips. The card replaces the use of cheque, human bank teller, and it also solves the problem of paper based verification. It removes restrictions on specific time the customers can be allowed to access their account for normal transactions. Apart from the common deposit/withdrawal services, the machine also allows a number of other transactions such as making balance inquiries, transferring money from one account to the third party, purchase of airtime, payment of bills, etc.

The use of online banking system is another convenient way of making payment without the need to interact with the bank tellers or an option of visiting the bank for physical withdrawal of cash. Since the mid-1990s, there has been a fundamental shift in banking delivery channels toward using self-service channels such as online banking services. Online banking can be defined as an Internet portal, through which customers can use different kinds of banking services (Pikkarainen *et al*., 2004). Several studies reported in the literature show that online bankers are the most profitable and wealthiest segment to banks (Mols, 1998; Robinson, 2000; Sheshunoff, 2000), and for this singular reason, it is impossible for any bank today to underestimate the power of the online channel.

Without the usage of technology the banking sector cannot provide customers with effective services (Patrício *et al*., 2003). The adoption of ICT in banks has resulted in an effective service delivery which has significantly improved service concept. Customer expectations concerning service encounter experiences and service delivery mechanisms as well as the entire concept of what constitutes quality service are therefore key issues that need to be considered prior to the implementation of any structural change (Patrício *et al*., 2003). Combination of several technologies has being implemented in the banking sector and this has made good impact in the economy and making meaningful progress in service products and delivery to achieve a better level of customer satisfaction.

Effective service delivery can be referred to as a service product or service process that is based on some technology or systematic method. Such technological method can be a new customer interaction channel, a distribution system, a technological concept or a combination of all these concepts (Kelley *et al*., 1990). The adoption of both ATM and online banking system has made banking transactions faster, seamless and convenient. However, they are not without some challenges; banks keep investing heavily to abate those challenges which mainly hinge on security. Many cases of impersonation have resulted in huge loss of money from the customer's account. But relatively, the adoption of the technology is achieving desired results across banks.

This section reviews some studies on the customer attitudes and the general implications of technology integration in banking operations, most especially in the areas of teller services. One of the studies that related to the present work is the study reported in Moutinho & Smith (2000). The study introduced a linear structural relations approach that posits a crucial role for the evaluation of bank customers' attitudes towards both human tellers and automated banking in mediating the ease of banking factor/perceived satisfaction linkage. Also in the study, the model explicitly considered the effects of bank customer attitudes towards human tellers and automation. The present study provides additional explanatory power regarding how the perceived trend towards ease of banking influences bank customer overall satisfaction, switching and loyalty behaviour.

In a study reported in Akanni *et al*. (2014), the study examined the influence of customer care services on customer satisfaction among undergraduates in selected banks at Obafemi Awolowo University, Ile-Ife, Nigeria. The study established the significance of gender on customer satisfaction. Primary data were collected through a self-designed questionnaire which was administered on a sample size of 200 students consisting of 116 males and 84 females. Analysis of these data showed a significant relationship between customer services and customer satisfaction. Also, a significant difference between gender and customer satisfaction was reported.

The study in Chiemeke *et al*. (2006), examines the level of adoption of e-banking in Nigeria. The study carried out empirical investigations on 12 banks based on the functionality and interactivity of their websites. The study revealed a low level of security and further showed that internet banking was being offered at what they referred to as the basic level of Interactivity. The study therefore, recommends improvements on security and provision of key infrastructural requirements of Internet banking in order to achieve confidentiality, and effective communication integrity for customer satisfactions.

The test result in Leblanc (1990), presented an exploratory study on customer motivations towards the use and non-use of an automated teller machine. The study collected primary data of 208 customers in a financial institution. The analysis of the

FUW Trends in Science & Technology Journal, www.ftstjournal.com
e-ISSN: 24085162; p-ISSN: 20485170; April, 2020: Vol. 5 No. 1 pp. 184 – 189

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data collected based on demographic variables reveals significant differences between users and non-users in terms of their level of education. Findings from the study showed that, convenient accessibility of a financial institution and avoidance of waiting lines are the principal reasons for using the automated teller. This study further reveals that, in comparison with non-users, the user group is more likely to believe that the automated teller improves service quality, reduces the financial institution's operating costs, presents no personal or financial risks, and very simple to use. However, the non-user group prefers dealing with human tellers, the clusters of respondents in that category finds the machine complex to use, and associates personal and financial risks with the use of the automated teller machine.

The research work reported in Davies *et al*. (1996), showed how data collected from a sample of ATM users on how their perceptions of ATM services can be modeled and analyzed using neural networks approach. The study brought together psychometric and econometric approaches with a view to measuring the attitudes and customers perceptions. The use of neural network technique essentially based on fitting a curve through the data, which mainly involve finding a relationship from the predictors (input variables) to the predicted (output variables). The study defined four user types that have the following characteristics: disaffected youth, technophobes, the pro technology segment, and the cost conscious segment. The study recommends some ideas on how banks could address the needs of each segment.

The study in Al-Jabri & Sohail (2012), examines a number of factors affecting the mobile banking adoption. The author found the study necessary as a result of influx of mobile applications designed for banks and been installed on the mobile phones. Findings from the study suggests that, banks that falls within the study domain should offer mobile banking services that are compatible with various current user requirements, past experiences, lifestyle and beliefs in order to fulfil customer expectations.

Also in a related study reported in (Aderonke, 2010), the study investigates the level of acceptability of e-banking in Nigeria. The study further examines those factors that determine the behavioural intentions of the users to use e-banking systems in Nigeria. The study used survey approach as a method of data collection. A total of 500 questionnaires were administered within Lagos and its environs. The study specifically investigated perceived credibility, computer self-efficacy, perceived usefulness, and perceived ease of use on customer attitude and customer adaptation. The result of the study revealed that, ATM is well accepted by bank customers and it is the most widely used form of e-Banking service. The study further showed that, Banks' customers who are active users of e-Banking system prefer to use the system due to convenience and its simplicity; it also saves time and very appropriate for customer's transaction needs.

The present study aimed at building on the existing findings as reviewed in order to unveil the level of customer satisfaction as a result of ICT integration and adoption in the bank teller services within the Ilorin metropolis, Nigeria. Although, banking transaction s through the use of automated teller machine has been in existence for years, a survey such as this is inevitable in order to bring about necessary improvements and to suggest other new features that may be beneficial to the stakeholders if introduced.

Material and Methods
Data collection procedures and theoretical scope
In the process of collecting the required data for the purpose of this research, primary data were sought from a number of bank customers in Ilorin, Kwara state, Nigeria. The researchers applied the use of self-administered questionnaires

and with the cooperation of some bank staff, 800 questionnaires were distributed to the bank customers. Although the number of customers that holds ATM card could not be established at the time of this study; however, our choice of the sample size conforms to the information provided on minimum returned sample size for a given population size when dealing with categorical data with a margin error of 0.05 as reported in Bartlett *et al*. (2001). Therefore, the sample size of 800 customers used in this study is a good representation of the frequent users of the smart card in the study domain. After the collection of the questionnaire from the respondents, the researcher collated them, assembled the ones that are completely filled. The captured data was subsequently analyzed using SPSS as shown in the analysis of data section.

This study was guided by the Diffusion of Innovation Theory (DIT). There are a number of theories that are particularly relevant to this study but DIT goes in-depth in exploring those variables that affect individuals in one way or another for adoption of new technology or any form of innovation. The concept of DIT seeks to explain how, why, and at what rate the new ideas and technology spread (Al-Jabri & Sohail, 2012).

Research questions and hypothesis
A number of questions were asked from the bank customers that took part in the survey. The questions directed to the customers were targeted at finding out their level of satisfaction in using the ICT-integrated bank teller services in lieu of the human bank tellers. The questions were organized into parts. Part I (Bio-data), Part II (Background information). Questions in parts I and II basically comprised of two point rating scale: 'Yes' or 'No'. Others are Parts III, IV and V which comprised of the mixed mode – open ended questions, two point and four point rating scale.

There are general questions in each part and each of these general questions has some specific questions. The bank customers specifically respond to some general questions on the effectiveness of ATM services, how frequently they use the different services offered by the ATM and their level of satisfaction on the use of ATM. Hypotheses are formulated and tested to determine whether the null hypotheses should be rejected or accepted (see the section for Analysis of data collected and Discussion of Findings).

Sampling design techniques and population of the study
A sample design can be defined as a definite plan for obtaining a sample from the sampling frame (Kothari, 2004). The design takes care of the selection procedure, which involves some sampling units from which inferences as regards the population under the present study is eventually drawn. This research was carried out in Ilorin, Nigeria between the periods of April and October, 2017. Some banks were visited and questionnaires were personally distributed to customers, while some bank staff volunteered to assist in the distributions. The respondents to the questionnaires were mainly those into businesses, public servants and students. Although, a total number of 800 questionnaires were distributed, only 665 were returned and captured for analysis. However, the sample data analyzed consists of the data that covers the sampling frames from the three local government areas within the Ilorin metropolis. The selection approaches adopted in the course of this research ensure sample data that reflect the makeup of the data from different occupations and background.

Results and Discussion
The results of the data collected and analyzed are presented in this section. Out of the total number of 665 bank customers that returned the questionnaire given to them, the breakdown of the transactions they perform with the ATM on a regular

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e-ISSN: 24085162; p-ISSN: 20485170; April, 2020: Vol. 5 No. 1 pp. 184 – 189

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basis is shown in Table 1. Also, the respondent's reactions to the level of their satisfaction in using an ATM services are represented also in Table 1. As shown in this table, the majority of ATM users that responded in this study use the machine mainly to withdraw cash from their account. The ATM users also indicate that, they use the machine for other purposes.

On the level of satisfaction of the services offered through an ATM, their responses show that the majority of the respondents feel very satisfied and only 55 out of the 665 respondents indicates otherwise. Further comments why some users feel unsatisfied included trapping of their card in the machine, a sudden network failure that can make the machine to be out of service for several hours, insufficient cash loaded into the machine most times and very limited type of languages the machine supports.

This study inquires about the usage of technology-driven bank teller services from selected bank customers. Emphases were placed on the use of ATM because of its frequent use by virtually all the customers in the study domain. Typically, bank customers access their account through the ATM for various reasons; apart from using an ATM to confirm the account balances, the machine also allows the customers to withdraw cash. Customers can also perform other transactions such as purchase of airtime, transfer of money to the third party, payment of bills, etc. The descriptive statistics represented in Table 1 shows the withdrawal services that are available through an ATM. Also contained in Table 1, is the level of satisfaction of the services being rendered through the use of an ATM within the areas under study.

Table 1: Information on ATM services and customer satisfaction

Services offered by ATM	Descriptive statistics	
Withdrawal services	**Frequency**	**Percentage (%)**
GSM Airtime Purchase	305	45.86
Money transfer	315	47.37
Checking of account balances	445	66.92
Payment of bills	28	4.21
Cash withdrawal	600	90.23
Level of satisfaction of the services		
Very satisfied	409	61.50
Satisfied	201	30.23
Not satisfied	55	8.27
Total	**665**	**100.0**

This study did not limits its analysis to descriptive statistics, other statistical analysis approaches such as *t-test*, *ANOVA*, *Correlation*, *Duncan Multiple Range Test* were also determined and illustrated in subsequent tables. The analyzed data reveals information from the customers as regards the

security locations where the ATMs are installed. The security in this sense is not only for the machine, but also for the customers that are accessing the machine. Out of a total number of 665 respondents, 530 customers (79.7%) indicated that the environment where the machines are installed are secured for both the machine and the users, while 50 of the respondents (7.5%) feels otherwise as shown in Table 2.

Table 2: The level of security at the locations where the ATMs are installed

Variables	Frequency	Percentage (%)
Very insecure	5	0.8
Insecure	50	7.5
Secure	530	79.7
Very Secure	80	12.0
Total	**665**	**100.0**

Table 3: The time it takes the customers on queue before accessing the ATM

Variables	Frequency	Percentage (%)
1-5 min	160	24.1
6-10 min	120	18.0
11-15 min	115	17.3
More than 15 min	270	40.6
Total	**665**	**100.0**

Also, one of the factors that usually frustrate customers while accessing ATM is time wastage in the course of performing transactions on the machine. This study made some findings from the respondents on how long it takes them to remain on queue before accessing the ATM within the study domain. The feedback by the respondents on this indicates that, in most cases, it takes majority of bank customers more than 15 minutes on queue before they have the opportunity to access the ATM. Numerically, 160 respondents (24.1%), indicates that it takes them between 1 to 5 min on queue before having the opportunity of accessing the ATM. This study further reveals that 270 of the respondents (40.6%), indicates that it takes them more than 15 min on queue before it gets to their turn to access the ATM. The analysis of the average time it takes to access the ATM by the bank customers is shown in Table 3.

The data collected was subjected to further analysis in order to reveal some basic descriptive statistics in respect of ATM services and the customer satisfaction as illustrated in Table 4. The correlation between the two variables was determined and the results are shown in Table 5.

Table 4: The descriptive statistics showing the mean and the standard deviation

Variable	Mean	Std Deviation	Sample size (N)
ATM Services	2.7594	1.10687	665
Customer satisfaction on the use of ATM	24.8812	3.57822	665

Table 5: Determination of the level of correlations between the two variables

Variable	Correlations	ATM services	Customer satisfaction on the use of ATM
ATM services	Pearson Correlation	1	.924**
	Sig. (2–tailed)		.000
	N	665	.665
Customer satisfaction on the use of ATM	Pearson Correlation	.924**	1
	Sig. (2–tailed)	.000	
	N	665	665
**Correlation is significant at the 0.01 level (2–tailed)			

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e-ISSN: 24085162; p-ISSN: 20485170; April, 2020: Vol. 5 No. 1 pp. 184 – 189

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The responses to some questions on customers' personal information are analyzed and represented in Table 6.

Table 6: Information on bank customers

Sex	Frequency	Percentage (%)
Male	505	75.9
Female	160	24.1
Total	**665**	**100.0**
Occupation		
Employed	455	68.4
Business	75	11.3
Student	120	18.1
None	15	2.3
Total	**665**	**100.0**
Do you hold an account with any bank?		
Yes	665	100.0
No	0	0
Total	**665**	**100.0**
If yes, do you possess an ATM card?		
Yes	665	100.0
No	0	0
Total	**665**	**100.0**

Hypothesis Testing

The three hypotheses formulated in this study are tested and the results are represented in Tables 7, 8, 9 and 10.

Hypothesis 1: There is no significant difference in the customer satisfaction in using an ATM based on gender

The result of the *t-test* on the Customer Satisfaction in the use of an ATM based on gender is represented in Table 7.

From Table 7, it can be deduced that the calculated *t-value* of 43.38 is greater than the Critical Value of 1.96 at the 0.05 level of significance. The null hypothesis of no significant difference in the customer satisfaction in using an ATM based on gender is therefore rejected. This implies that there is a significant difference in the customer satisfaction in using an ATM based on gender. This agrees with the study reported in (Akanni *et al*., 2014). The study's hypothesis revealed that there is a significant difference between gender and customer satisfaction from the result of their hypothesis tested using the Chi-Square analysis. Consequently, the null hypothesis was rejected and the alternative hypothesis was accepted.

The result is also in agreement with the results of other related work reported in the literature. For instance (Ross *et al*., 1999), administered a customer satisfaction survey yielding 1,393 responses from individuals who applied for employment and training services in the New Jersey Employment Services. It was found that women generally have higher expectations regarding the importance of service delivery issues than their male counterparts. However, no differences were found between men and women reporting their actual satisfaction of the services received.

Table 7: The result of *t-test* on the customer satisfaction in the use of an ATM based on gender

Gender	No of Cases	Average	Standard Deviation	DF	Calculated T-Value	Critical Value	Decision
Male	505	23.1505	1.969				Hypothesis
Female	160	30.3438	1.278	663	43.38	1.96	Rejected

Pr< 0.05

Table 8: ANOVA result on the customer satisfaction on the use of ATM based on occupation

Source	DF	Sum of Square	Mean Square	Calculated F-Value	Critical Value
Between Group	3	7204.128	2401.376		
Within Group	661	1297.487	1.983	1.223	3.00
Total	**664**	**8501.851**			

Pr< 0.05

Hypothesis 2: There is no significant difference in using an ATM based on occupation

The results of the ANOVA and DMRT on the Customer Satisfaction in using an ATM based on occupation are represented in Tables 8 and 9, respectively.

The result in Table 8 shows that, there is no significant difference in the customer satisfaction in using an ATM on the basis of occupation, because the calculated f-value of 1.223 was less than the Critical Value of 3.00. Therefore, the null hypothesis is not accepted; F[df 3, 661] = 1.223, Pr< 0.05.

In order to find the source of the significant difference observed in Table 8, a Duncan Multiple Range Test (MRT) was carried out as a post-hoc test. Duncan's MRT belongs to the general class of multiple comparison procedures as represented in Table 9.

Table 9: Duncan multiple range test on occupation

Occupation	Mean	Group	Duncan Grouping
Student	30.3333	4	A*
None	30.7667	3	A*
Business	27.4400	2	B
Employed	22.7275	1	C

*Means with the same letters are not significantly different

This result shows that the mean scores of the customer satisfaction in using an ATM by the two occupational groups (Student and None) are similar, but significantly different from the third and fourth (Business and Employed). Employed in Group 1 has a mean score of 22.7275, Group 2 Business has a mean score of 27.4400. The Group 3 None has a mean score of 30.7667, while the Student has a mean score of 30.3333.

This result agrees with the hypothesis testing reported in (Premlatha & Sharma, 2012);where the study showed that there is no significant relationship between the occupation of respondents and the services provided by an ATM.

Hypothesis 3: There is no significant relationship between ATM Services and Customer Satisfaction

The result of the Correlation Analysis between ATM Services and Customer Satisfaction is as shown in Table 10.

Table 10: Correlation analysis between ATM services and customer satisfaction

Variables	N	Mean	SD	DF	Calculated R-Value	Table Value	Decision
ATM Services	665	2.7594	1.1068				

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e-ISSN: 24085162; p-ISSN: 20485170; April, 2020: Vol. 5 No. 1 pp. 184 – 189

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Customer Satisfaction	665	24.8812	3.578	665	0.924	0.052	Hypothesis Rejected

Table 10 indicates that the calculated r-value of 0.924 is greater than the tabulated r-value of 0.052 at 665 degrees of freedom, using the value 0.05 level of significance. The null hypothesis which states that there is no significant relationship between the ATM services and the customer satisfaction was rejected. This implies that there is a significant relationship between ATM services and the customer satisfaction. This tends to agree with the study reported in (Patrício *et al*., 2003). The study revealed that customer uses different service delivery systems and this depends on their assessment of each channel and how it contributes to the overall service offering. Hence, service satisfaction should not merely be based on isolated service encounters and experiences but rather, on the overall feelings of the satisfaction.

Conclusions

This paper presents the findings on customer satisfaction as a result of technology adoption in bank teller services within the sampling frame in Ilorin metropolis, Nigeria. The motive of a gradual replacement of human bank teller with the IT integrated bank teller services was to bring about some improvements in the banking operations. So far, the introduction of automated teller and online banking services has really achieved this key objective to a large extent. Banks, most especially in the cities have witnessed a crowd of customers in a certain period of time. This study has shown that there is an improvement as a result of the IT integration in bank teller services within the geographical scope under investigation. It can be inferred from this study that, most of the customers feel satisfied with the integration of ICT adoption but findings further reveals a number of challenges that are still facing some bank customers in the course of making transactions.

Although, this study was initially intended to capture information regarding the use of ATM and online banking services, however, preliminary study within the study domain showed that, majority of the populates uses only ATM, hence, the reason this study focused more on the machine usage. The data collected in the course of this study has revealed the need to raise the level of customers' satisfaction as some customers still feel discouraged due to incessant failures of the automated teller machine. Customers were found to be facing problems such as trapping of their card in the machine, insufficient cash in the machine, and network challenges that usually leads to a prolong out of service. These problems are enough to scare the prospective customers; as such customers may prefer to close their account in order to look for a bank that offers a much better services and reliable network.

In view of the above, it is recommended that all the identified problems and potential barriers to proper functioning of ATM should be addressed in order to bring about the desires effectiveness of the machine. Also, it is necessary to have an expanded view into those factors that lead to the low/poor performance of the ATMs and the need to double the current existing number of the machine in all the locations where they are presently installed.

Conflict of Interest

Authors declare that there is no conflict of interest related to this paper.

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e-ISSN: 24085162; p-ISSN: 20485170; April, 2020: Vol. 5 No. 1 pp. 184 – 189

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e-ISSN: 24085162; p-ISSN: 20485170; April, 2020: Vol. 5 No. 1 pp. 184 – 189

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