

# Assessment of Challenges Facing Customers in Automated Teller Machines in the Banking Industry in Tanzania: A Case of Some Selected Banks in Tanzania

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**Abstract-***This study presents an assessment of the challenges facing banks' customers when using Automated Teller Machines (ATMs) in the banking industry in Tanzania, a case of some selected banks in Tanzania. Specifically, the study examined the contribution of Automated Teller Machines towards customer satisfaction, challenges facing customers when using ATM in Tanzania, and strategies which banks in Tanzania can use in improving ATM services in Tanzania. The study employed descriptive research design to explain the extent to which bank customers in Tanzania are satisfied and dissatisfied with ATMs in Tanzania. Data were sourced mainly from bank customers of Barclays bank, National Microfinance Bank (NMB), CRDB bank, National Bank of Commerce, Tanzania Posta Bank, Exim Bank, and Diamond Trust Bank in Iringa region in Tanzania. Data were collected only to customers who had ATM cards. In all banks, 100 ATM card bearers were accessed. Structured questionnaire were administered to each customer. Data analysis was done using software programs such as Statistical Package for Social Scientists (SPSS) and Microsoft excel. Descriptive and inferential statistics were the pivot of the analysis. The findings of the study revealed that card locking, insecurity, machine breakdown, machine out of cash, and long time in cash dispensing have a positive relationship with the challenges that face bank customers in using ATMs in Tanzania. The study concluded that these factors (card locking, insecurity, machine breakdown, machine out of cash, and long time in cash dispensing) hinder the convenience, speed, security, reliability and cost for more customers to use ATM and get customer satisfaction in banks in Tanzania. Thus, the study recommends that those challenges attributed in the study should be given priority by banks in improving ATM services to customers.*

**Key Words-***Challenges facing Bank Customers; ATMs in Tanzania*

## 1. INTRODUCTION

### 1.1 Background of the Study

In 2008, Bill Gates announced that “banking is essential, but banks are not”. This challenging statement from Bill Gates implies that the traditional bank branches are going to vanish and replaced by electronic banking system which continues to attract new customers (Baten and Kamil, 2010). Thus, the development of Information Communication and Technology (ICT) has enhanced banks in the world including Tanzania to provide improved services for customer satisfaction (Surjadjaja et al, 2003). In this regard, through the growth of Information Communication and Technology (ICT), the banking industry in Tanzania has gone through substantial changes; these changes have transformed the dimensions of financial services that are delivered to their customers. Nowadays in Tanzania, there are number of alternative models available for services delivery. These models of services include Automated Teller Machine (ATM), mobile money services or Tele- banking, and internet banking. However, the most common dimension of service delivery in the banking industry in Tanzania is the

introduction of Automated Teller Machines (ATMs) and mobile money services.

As described by Curran and King (2012), ATMs are known by various casual names in the world including automated banking machines, money machines, bank machines, cash machines, hole-in-the-wall and cash point or Bancomat [in Europe and Asia]. ATMs are now a way of life in Tanzania, and many banks in Tanzania have made ATMs compulsory with some transactions like money withdrawal but normally the amount of withdrawal is limited. Thus, ATM is a self-service banking terminal that accepts deposits and dispenses cash. Most ATM's also let users carry out other banking transactions (e.g. check balance, statement ordering, balance enquiries, cheque ordering, instructions for transfer between the cardholder's accounts, and depositing cash and other payments). In Tanzania for example, there are some services which are connected to ATMs by agreement between the bank and the service issuing company for example, energy recharge services [LUKU services], and phone recharge services using ATMs.

ATM's are activated by inserting a bank card (cash or credit card) into the card reader slot. The card will contain

the customer's account number and PIN (Personal Identification Number) on the cards magnetic stripe. When a customer is trying to withdraw cash for example, the ATM calls up the banks computers to verify the balance, dispenses the cash and then transmits a completed transaction notice (Kumar and Sing, 2011).

According to Mohammed (2012), Automated Teller Machine is a cash rending teller machine. This machine helps a bank customer to withdraw money from his/her account without having to go to the bank. A totally menu-driven system, it displays easy-to-follow, step-by-step instructions for the customers. Thus, ATM is a user friendly, computer driven system, which operates 24 hours a day, and 7 days a week. The service of ATM can be accessed using an ATM card that gives an entry into ATM booth. The Personal Identification Number (PIN), exclusive to each customer, has to be keyed-in for carrying out desired transactions (Mohammed, 2012).

Also, as observed by Dhungel, Acharya, and Dhungel (2012), an ATM is a computerized telecommunication device that provides the customer of a financial institution with financial transaction facility without the need for a human clerk or bank teller. This implies that ATM makes the delivery of financial service easier to access, faster, and brings autonomy to customers.

Other scholars such as Davies et al (1996), Mcandrews (2003), and Komal and Singh (2009) have defined the same concept as one type of innovation that can mechanically accept deposits, issue withdrawals, transfer funds between accounts, and collect bills. It has altered the relationship between banks and their depositors, as well as the level of service quality of banking services. ATMs are offering 24 hours banking services to bank customers such as cash withdrawal, fund transfer from one financial institution to another, balance inquiry, card to card transfer, bill payment, accept deposits, etc.

Therefore, deducing from the definitions provided, an Automated Teller Machine (ATM) is cash dispensing teller machine. These machines help bank customer to withdraw money from his/her account without having to go inside the banking hall. In recent times, deposit taking ATMs are being used elsewhere in the world. ATM is a user friendly, computer driven system, which operates 24 hours a day, and 7 days a week. Being a totally menu driven system, the ATM displays easy-to-follow, step-by-step instructions for customers. It can be accessed using an ATM card that gives entry into an ATM room. The Personal Identification Number (PIN), exclusive to each customer, has to be keyed-in before any transactions can be made. Many banks have opened off-site ATMs at airports, railway stations, petrol stations, market centers, universities, hospitals, etc.

The notion for an ATM invention was simply to replace or reduce the workload of bank tellers (i.e. those people in the banks who give out money to the bank customers). Also, it was hypothesized that ATMs would help to reduce banks overheads as the wages bank tellers would be decreased. Also, it was thought that ATMs would complement the

human service in banks especially when bank workers are not available (Kurran and King, 2012).

The idea of having a bank machine which automatically dispensed cash to customers can be traced back in the 1930's. It has been reported that a Turkish born inventor working in America called George Simijan started building an earlier and not-so-successful version of an ATM in the late 1930's ( Berris (2008), Nyamaka (2009), and Kuran and King ( 2012). George Simijan registered the related patents in 1930s. Simijan came up with the idea of a 'hole-in-the-wall' machine which would allow customers to make financial transactions. However, at the time this idea was well ahead of its time and was met with great doubt. Simijan registered 20 patents related to the device and persuaded an American bank to make a trial of it. However, after six months the bank reported little demand in the service and hence it was withdrawn. It was until the 1960's that the idea of the ATM was revived again by John Shepherd-Barron from United Kingdom. At the time John Shepherd-Barron was the managing director of a company called De La Rue Instruments which today still manufactures cash dispensers. People who believe John Shepherd-Barron invented the ATM argue that the world's first ATM was installed outside a north London branch of Barclays in 1967 Berris (2008), and Kuran et al. (2012).

In 1965 a Scottish man called James Goodfellow was given a project to develop an automatic cash dispenser. Goodfellow was a development engineer with a UK company called Smiths Industries Ltd. He designed a more modernized system which accepted a machine readable encrypted card and had a numerical keypad used to enter a PIN. This design is covered in patents in both the UK and USA among other countries. This patent still describes the basic ATM function 40 years later (i.e. the design was patented in 1966). Goodfellow's machines were marketed by Chubb Ltd and installed throughout the UK during the late 1960's and early 1970's. Another inventor called Don Wetzel, then the Vice President of Product Planning of the American Corporation Docutel, reported that he applied for a patent on an ATM in 1968. In fact some people believe Wetzel to be the inventor of the ATM. However, an ATM design patented in 1973, stating the Docutel Corporation as the assignee, states that John D White as the inventor. White has claimed that he started working on ATM system in 1968 and thus he installed the first ATM in 1973. This machine was called the 'Credit Card Automatic Currency Dispenser'. Many reports suggest that it was White who received the patent and not Wetzel. There is also another statement in the patent which supports the idea of the modern ATM. ATMs have security keys programmed into them. The code changes and is scrambled to prevent access to credit and ATM card numbers between the ATM, the bank and the network processor. In this regard, it has to be understood that the topic of ATM invention is very debatable. However, the combined effort of all the inventors starting from George Simijan, James Goodfellow, Don Wetzel and John D. White; surely have helped in one way or another to create

the ATMs which are being used today. Thus, anyone who has worked on the design of ATM from the 1930's until today to large extent has contributed something to the design of modern ATM.

Until December, 2013, Tanzania had 52 banks. The Standard Chartered Bank Tanzania (SCBT) was the first Bank in Tanzania to introduce the Automated Teller Machine (ATM) in 1997 thus creating for itself a niche as a Bank that creates convenience and accessibility for its customers. The Bank has continued to lead the way in Tanzania in financial performance, service, innovation and sustainability and thus receiving many awards and accolades (BoT, 2009). The Investment Act of 1990 and the Banking and Financial Institutions Act of 1991 were among the earliest reforms which removed the state monopoly on banking services. According to Gill (2009), in 2006 two Acts of the parliament were passed namely, the Bank of Tanzania Act and the Banking and Financial Institutions Act, in order to keep control of the booming Tanzanian banking sector. Thus, many banks introduced ATMs in Tanzania as a result of these two Acts of parliament of 2006 (Gill, 2009).

According to the Bank of Tanzania reports (BoT, 2009), almost all banks in Tanzania are providing ATM facilities to their customers so as to remain sustainable in this competitive and fast moving world because customers in this global world are more influenced by reliability, ease access, and faster services. Thus customers nowadays, prefer autonomy and self-service delivery services such as ATMs so as get satisfaction (Khan, 2010).

In this regard, Automated Teller Machines have gained quality influences and prominence as a delivery channel for banking transactions in the world, and have influenced even banks in developing world such as Tanzania to move towards the pace. Banks have continuously deploying ATMs so as to increase their reach to their customers. As far as the customer satisfaction is concerned with regard to e-banking services. ATM services play an important role as they make easy of banking transactions for customers.

Also, based on the prior studies on ATMs and customer satisfaction, Khan (2010) has described that that the key dimensions of automated banking service quality include reliability, ease of use, privacy, convenience and responsiveness. In connection to that, Al-Hawari et al. (2006), and Natch (2013) compiled a list of five major items about ATM service quality that include convenient and secured locations, functions of ATM, adequate number of machines and user-friendliness of the systems and procedures. Linking to what Khan (2010) and Al-Hawari et al (2006) have described, Anderson et al. (1976) and Laroche (1988), have describes that the bank's ability to deliver the factors like convenience and accessibility have impacted the perception of customer satisfaction. In addition to that, Lovelock (2000) has also noted that secured and convenient location, adequate number of ATMs, user-friendly system, and functionality of ATM are the important factors for the customer satisfaction.

Lymberopoulos and Chaniotakis (2003), have summarized the impact of ATMs under a number of headings: Cost reduction whereby through ATMs there has been reduced transaction costs to customers. Bank image whereby through ATMs there has been an enhanced organization's reputation for innovation, customers trust, and proven innovators. Innovators' advantage whereby through ATMs the competitive advantage is established by being among the first to master e-banking. Queue minimization whereby through ATMs queuing in bricks and mortar facilities to large extent has been decreased. Increased sales whereby through ATMs there has been an alternative distribution channels which increase sales in banks. Improved customer service and satisfaction whereby through e-banking users tend to be more satisfied and loyal than non-users. ATMs in developed countries (such as USA and Japan) tend to offer advanced services which include cash deposits, cheque deposits, paying bills, purchasing tickets (e.g. train, concert) and purchasing stamps.

## 1.2 Statement of the Problem

It should be noted that ATMs in the banking industry has contributed towards customer satisfaction through reliability and accessibility of services, customer autonomous and privacy, convenience, user friendly services, etc; as various studies on ATMs and customer satisfaction have described (Al-Hawari et al. (2006), Islam et al. (2007), Pahwa et al. (2012), etc.). According to Curran et al (2012), Mohammed et al (2012), and Issahaku (2013) although ATMs provide an extremely significant service to banks customers, however; sometimes they are very frustrating to use and therefore there is a lot of room for improvement so as to bring fully customer satisfaction. Some of the challenges include poor network quality, card locking, machine breakdown, withdraw limit, ATMs running out of cash, insufficient number of ATMs in cities and town, long time in cash dispensing, etc. Research on challenges which face bank customers when using ATMs is very rarely in Tanzania as many studies in Tanzania on customer satisfaction and ATMs, have described only the positive side of ATMs. Therefore, this study aims to fill that knowledge gap through assessing the challenges facing customers when using ATMs in Tanzania, a case of some selected banks operating in Tanzania.

## 1.3 Research Objectives

Specifically, this study attempted to:

- a) Examine the contribution of Automated Teller Machines towards customer satisfaction in Tanzania.
- b) Assess challenges facing customers when using ATM in Tanzania.
- c) Describe strategies which banks in Tanzania can use in improving ATM services in Tanzania.

## 1.4 Hypotheses of the Study

The following hypotheses were formulated so as to meet the above research objectives.

Ha1: There is a significant relationship between poor network quality and customer dissatisfaction.

Ha2: There is a significant relationship between ATM running out of cash and customer dissatisfaction.

Ha3: There is a significant relationship between card locking and customer dissatisfaction.

Ha4: There is a significant relationship between withdraw limit and customer satisfaction.

Ha5: There is a significant relationship between long time in cash dispensing and customer dissatisfaction.

Ha6: There is a significant relationship between machine breakdown and customer dissatisfaction.

### 1.5 Significance of the Study

Little attention has been made to generate information regarding challenges facing customers when using ATMs in Tanzania. This study may therefore assist through its findings and recommendations to enhance banks reverse those attributed challenges. Also the results of this study may be used to develop better service delivery on ATMs which may attract many customers to use the service in Tanzania. The study may also give feedback to banks and other financial institutions in promoting the use of ATMs as new competitive strategy in promoting the performance banks in building institutional capacity of banks in Tanzania and other developing countries in the world. Besides, the study may be a basis for dialogue between policy makers and banks' stakeholders on the role of ATMs in enhancing the empowerment and sustainability of banks, which play a vital role in improving peoples' livelihoods.

## 2. LITERATURE REVIEW

### 2.1 Review of Empirical Studies

Various studies have done on the challenges which face bank customers when using ATMs. Some of the researches on ATMs' challenges include of Ilssahaku (2013) who did a research on ATMs and customer satisfaction in Ghana. His study investigated the experiences of Ghana Commercial Bank (GCB) and Barclays bank customers with Automatic Teller Machines (ATMs) in the Tamale Metropolis. Primary data were collected in 2011 from a randomly sampled 80 ATM users by means of a semi-structured questionnaire. The data were analysed using descriptive statistics and multiple regression analysis. The findings of the study revealed that, the main reasons why customers prefer ATM to other e-banking services include convenience, speed, security, reliability and cost effectiveness of ATM services. While machine running out of cash, link failure and long time in dispensing cash were found to be the most occurring ATMs' challenges. This study of Issahaku is relevant to this study because both are trying to assess the challenges which face banks' customers when using ATMs in Africa. Besides, the complaints which banks customers face when using ATMs in Ghana can be similar to those which banks customers feel in Tanzania.

Oko and Oruh (2012) did a study in Nigeria on the use of ATMs. The findings of the study pointed out that the concern of customers about security and privacy, while

using this service, is a major cause of their dissatisfaction. Also, Oko et al. (2012) expressed concern about the lack of cooperation among banks in the fight to stem the incidence of ATM frauds now plaguing the industry. They expressed that the silence among banks on ATM frauds makes it difficult for banks to share vital information that will help curb the menace. Thus, they blamed the menace of ATM frauds on indiscriminate issue of ATM card without regard to the customer's literacy level. According to them, one of the frequent causes of fraud is when customers are careless with their cards and PIN numbers as well as their response to unsolicited e-mail and text messages to provide their card details. This study also is parallel to the study under investigation because ATMs' frauds are among the challenges which have been experienced by bank customers in Tanzania when using ATMs. Machine (ATM) fraudster is threatening electronic payment system in the nation's banking sector with users threatening massive dumping of the cards if the unwholesome act is not checked. Adeloje (2008) identified security as well as power outage as major challenges facing the ATM users in Nigeria. Brunner et al. (2004) in their study concluded that the location of ATM is a high determinant to fraud or crime carried out at ATM point. ATM within the banking premises is more secure than ATMs outside the bank premises. Also, it is obvious that the location of ATM in attractive place does not make it prone for fraud. Diebold (2002) in his view states that the major form of ATM fraud is PIN theft which is carried out by various means; skimming, shoulder surfing, camera, key pad recorder etc.

Curran et al. (2012) did a study on banks service delivery through ATMs in UK. The findings of the study revealed that apart from the fact that ATMs provide an extremely useful service to banks customers, at times they have numerous challenges when using ATMs. Some of the challenges include: Waiting in the queue to use the ATM. If users ahead of you in the queue experience difficulties in using the machine, this will increase the time waiting in the queue. Customers' inability to see the ATM screen well depending on the location of the ATM in relation to the position of the sun. At times it can be difficult to view the contents of the ATM menu. Wrongly inserting the ATM card whereby this problem is more common with new ATM users who are not familiar with their new card and the ATM. Getting the required amount of money as some ATM's may not offer to the user the required amount of money they want on the initial cash withdrawal screen. The user will then have to use a few more key strokes to select the required amount Understanding how to perform operations as some ATM users find the instructions on how to perform operations quite difficult to understand. Often the ATM card is returned to the user while further operations are required (e.g. the card is returned once the user requests a sum of cash. However, the user may want to do further transactions; such as check balance or top-up a mobile phone). This will lead to the customer having to re-insert their ATM card, further increasing their time

spent at the ATM. Also on some ATM machines the menu options are not aligned with their corresponding menu key. This study is significant to this research because it has broadened the understanding of challenges that face banks customers when using ATMs. Although this study conducted in Europe, but the challenges are just similar to those which Issahaku (2012) and Oku et al. (2012) have described in their study done in Nigeria and Ghana in Africa where Tanzania also is located.

Shamsuddoha, Chowdhury, and Ahsan (2005) did a study on Automated Teller Machines, a new dimension in the bank service of Bangladesh. The study revealed that lack of privacy in executing the transaction; security concerns and the complexity of the machine were the major concerns for ATM customers in Bangladesh. Thus, it was evident that convenience, efficient operation, security and privacy, reliability and responsiveness are not the only characteristics that influence customers' satisfaction. The other factors that contribute to customer satisfaction include trust, value, and image of the bank. This study of Shamsuddoha et al. (2005), although was done in Bangladesh; but is has helped a lot this research undertaken to broaden the base of challenges which face bank customers when using ATMs.

Islam, Kumar, and Biswas (2008) did a study on customer satisfaction of ATM, a case study of HSBC ATM whereby they examined the satisfaction level of ATM card holders of a leading bank (HBSC) in Bangladesh. The study found significant relationship between ATM service quality and customers' satisfaction. The study identified that location, personnel response, quality of currency notes, promptness of card delivery and performance of ATM were positively and significantly related to customers' satisfaction. While, security, frequent breakdown of machine, and insufficient number of ATM were major contributors to customers' dissatisfaction. This study is similar to the study of Shamsuddoha et al (2005) which found out that 24 hours service, accuracy, and convenient locations were the main predictors of customer satisfaction. However, the study also indicated lack of privacy in executing the transaction, fear of safety and complexity of the machine as the major cause of concern for the customers dissatisfaction.

In addition, Rugimbana and Iversen (1994), studied the perceived attributes of ATM service quality and their marketing implications in Australia. They found out that convenience, reliability, and ease of use are important aspects, whereas complexity and unreliability (risk) were causes of dissatisfaction. This study also is related this study carried out because it offers as well some of the challenges which bank customers experience when using ATMs.

### 3. RESEARCH METHODOLOGY

The study employed descriptive research design to explain the extent to which bank customers in Tanzania are satisfied and dissatisfied with ATMs in Tanzania. This design has been used also by Khan (2010), Curran et al. (2012) and Issahaku (2012) on their studies on customer satisfaction on ATMs' service. Data were sourced mainly from bank customers of Barclays bank, National Microfinance Bank (NMB), CRDB bank, National Bank of Commerce, Tanzania Posta Bank, Exim Bank, and Diamond Trust Bank in Iringa region in Tanzania. Data were collected only to customers who had ATM cards. In all banks described above, 100 ATM card bearers were accessed. Structured questionnaire was administered to each customer. Data analysis was done through descriptive and inferential statistics through the help of software programmes such as Statistical Package for Social Scientists (SPSS) and Microsoft excel.

### 4. FINDINGS OF THE STUDY AND DISCUSSION

The first question was to what extent the following factors influence bank customers to use ATMs in Tanzania? From table 4.1, the findings of the study revealed that most of the respondents (70%) agreed that convenience is among the factors that influences bank customers to use Automated Teller Machines in Tanzania. Also, the variable has the mean of 8.75, standard deviation of 1.167, and significance value of 0.002 at 5% significance level and 95% confidence level. Thus, to large extent convenience influence bank customers to use Automated Teller Machines in Tanzania. Convenience is concerned about how customers avoid long queues in the banking halls.

**Table 4.1: The Extent to which Convenience Influences Bank Customers to Use ATMs**

	Percentages	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Not at all	10%	1.00	.	.	.	.	1	1
To some extent	5%	2.33	1.528	.882	-1.46	6.13	1	4
Somehow	15%	3.50	.707	.500	-2.85	9.85	3	4
Large extent	45%	4.00	.667	.211	3.52	4.48	3	5
To very large extent	25%	4.75	.500	.250	3.95	5.55	4	5
Total	100%	3.70	1.218	.272	3.13	4.27	1	5

From table 4.2, the findings of the study revealed that most of the respondents (70%) agreed that speed is among the factors that influences bank customers to use Automated Teller Machines in Tanzania. Also, the variable has the mean of 8.38, standard deviation of 1.1381, and significance value of 0.001 at 5% significance level and 95% confidence level. Thus, to large extent speed

influences bank customers to use Automated Teller Machines in Tanzania. Less time is spent in ATM transactions as compared to the human teller. The results indicate that most of the respondents representing 70% of the total respondents are influenced by the speed or fastness involved in the use of ATM service.

**Table 4.2: The Extent to which Speed Influences Bank Customers to Use ATMs**

	Percentages	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Not at all	5%	1.50	.707	.500	-4.85	7.85	1	2
To some extent	15%	2.00	.	.	.	.	2	2
Somehow	10%	3.67	.577	.333	2.23	5.10	3	4
Large extent	50%	3.78	.833	.278	3.14	4.42	2	5
To very large extent	20%	4.60	.548	.245	3.92	5.28	4	5
Total	100%	3.65	1.137	.254	3.12	4.18	1	5

From table 4.3, the findings of the study revealed that most of the respondents (75%) agreed that security is among the factors that influences bank customers to use Automated Teller Machines in Tanzania. Also, the variable has the mean of 8.38, standard deviation of 1.1381, and significance value of 0.001 at 5% significance level and 95% confidence level. Thus, to large extent security

influences bank customers to use Automated Teller Machines in Tanzania. Security talks about how customers feel secured in engaging in transactions. This also accounts for customers' use of the ATM services. Majority of respondents representing 75% mentioned security as part of the reasons why they use ATMs in Tanzania.

**Table 4.3: The Extent to which Security Influences Bank Customers to Use ATMs**

	Percentages	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Not at all	10%	1.00	.757	.432	2.54	.	1	1
To some extent	5%	2.00	1.000	.577	-.48	4.48	1	3
Somehow	10%	3.50	.707	.500	-2.85	9.85	3	4
Large extent	45%	4.20	.422	.133	3.90	4.50	4	5
To very large extent	30%	5.00	.000	.000	5.00	5.00	5	5
Total	100%	3.80	1.240	.277	3.22	4.38	1	5

From table 4.4, the findings of the study revealed that most of the respondents (75%) agreed that reliability is among the factors that influences bank customers to use Automated Teller Machines in Tanzania. Also, the variable has the mean of 8.80, standard deviation of 0.422, and significance value of 0.000 at 5% significance level and

95% confidence level. Thus, to large extent reliability influences bank customers to use Automated Teller Machines in Tanzania. Reliability is concerned with the provision of 24 hour service. As part of the reasons why customers use ATM, 75% of the respondents use ATM because of its reliability.

**Table 4.4: The Extent to which Reliability Influences bank Customers to use ATMs**

	Percentages	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Not at all	10%	1.50	.707	.500	-4.85	7.85	1	2
To some extent	5%	2.00	.000	.000	2.00	2.00	2	2
Somehow	10%	3.00	1.414	1.000	-9.71	15.71	2	4
Large extent	30%	4.63	.518	.183	4.19	5.06	4	5
To very large extent	45%	4.17	.408	.167	3.74	4.60	4	5
Total	100%	3.75	1.251	.280	3.16	4.34	1	5

**Table 4.5: The Extent to which cost Influences Bank Customers to use ATMs**

	Percentages	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Not at all	10%	1.00	.	.	.	.	1	1
To some extent	10%	2.00	.816	.408	.70	3.30	1	3
Somehow	10%	4.44	.726	.242	3.89	5.00	3	5
Large extent	40%	4.17	.408	.167	3.74	4.60	4	5
To very large extent	30%	3.70	1.302	.291	3.09	4.31	1	5
Total	100%	3.70	1.302	.291	3.09	4.31	1	5

From table 4.5, the findings of the study revealed that most of the respondents (75%) agreed that cost is among the factors that influences bank customers to use Automated Teller Machines in Tanzania. Also, the variable has the mean of 8.61, standard deviation of 1.132, and significance value of 0.000 at 5% significance level and 95%

confidence level. Thus, to large extent cost influences bank customers to use Automated Teller Machines in Tanzania. Cost explains the fee customers pay relative to the services enjoyed. Majority of respondents representing 75%, use ATM because of its cost effectiveness.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.970 <sup>a</sup>	.942	.921	.357

a. Predictors: (Constant), Long time in cash dispensing, Card locking, Machine out of cash, Insecurity, Machine breakdown.

b. Dependent Variable: Challenges of ATMs

The coefficient of determination ( $r^2$ ) had a value of 0.921. This implies that independent variables long time in cash dispensing, card locking, machine out of cash, insecurity and machine breakdown explain 92% of challenges that

face bank customers when using ATMs. This coefficient of determination is very significant because only 8% of variations are brought about by factors not captured in the independent variables.

**Regression Coefficient of Determination of the effect of independent variables on the dependent variable**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.442	.308		4.680	.000
Card locking	.916	.108	.949	8.514	.000
Insecurity	.933	.157	-.902	-5.961	.000
Machine breakdown	.579	.206	.616	2.806	.014
Machine out of cash	.684	.173	-.668	-3.949	.001
Long time in cash dispensing	.780	.153	.722	5.088	.000

a. Dependent Variable: Challenges of ATMs

The study conducted a multiple regression analysis so as to determine the relationship between the challenges of ATMs as dependent variables and predictors (card locking, insecurity, machine breakdown, machines out of cash, and long time in cash dispensing), the five attributes investigated in this study.

The regression equation ( $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \alpha$ ) was:

$$Y = 1.442 + 0.916X_1 + 0.933X_2 + 0.579X_3 + 0.684X_4 + 0.780X_5 + \alpha$$

Whereby Y = Challenges of ATMs

X1 = Card locking

X2 = Insecurity

X3 = Machine breakdown

X4 = Machine out of cash

X5 = Long time in cash dispensing

According to the regression equation established, taking all factors (card locking, insecurity, machine breakdown, machine out of cash, and long time in cash dispensing) constant at zero, the challenges of that face bank customers in using ATMs as a result of these independent factors will be 1.442. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in card locking will lead to a 0.916 increase in challenges of that face bank customers in using ATMs. A unit increase in insecurity will lead to a 0.933 increase in challenges of that face bank customers in using ATMs ; a unit increase in machine breakdown will lead to a 0.579 increase in the challenges of that face bank customers in using ATMs, a unit increase in machine out of cash will lead to a 0.684 increase in the challenges of that face bank customers in using ATMs, while a unit increase in long time in cash dispensing will lead to a 0.780 increase in the challenges of that face bank customers in using ATMs. This therefore, implies that all the five variables have a positive relationship with the challenges of that face bank customers in using ATMs in Tanzania. In this regard, the null hypotheses are rejected, while the alternative hypotheses are being accepted.

## 5. CONCLUSION & RECOMMENDATIONS

From the discussion of the findings as described above, the study concludes that card locking, Insecurity, Machine breakdown, machine out of cash, and long time in cash dispensing to large extent are among the factors that cause challenges for bank customers when using ATMs in Tanzania. These factors hinder the convenience, speed, security, reliability and cost for more customers to use ATM and get customer satisfaction in banks in Tanzania. Therefore, the study recommends that banks in Tanzania and elsewhere in the world should improve ATMs services in the aspects of card locking, machine break down, machines out of cash, and time used in dispensing cash to customers. Those challenges attributed in the study should be given priority by banks in delivering ATM services to customers.

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