

# ANALYSIS OF THE ATTITUDE CUSTOMERS HOLD TOWARDS THE USE OF AUTOMATED TELLER MACHINES (ATMs)

## A CASE OF IRINGA MUNICIPAL, TANZANIA

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**Abstract— Automated Teller Machine (ATM) is a cash dispenser that enables bank customers to enjoy banking services without coming in-contact with bank tellers (cashier). Since the introduction of ATM in Tanzania, no bank has conducted research on the customer satisfaction towards the use of ATM services to its customers. So the aim of this study was to analyze the attitude customers hold towards the use of ATM services. A total of 110 customers holding ATM cards were surveyed regarding the services offered by bank's ATM and their satisfaction. Data collected after survey were analyzed using SPSS and excel tools, and then percentage analysis were done to find the key contributors towards customer attitude. The study revealed that, there is great connection between gender, age, marital status, occupation, and location of the ATM towards the attitude customers hold on the use of ATM services.**

**Keywords— Automated Teller Machine (ATM), ATM services, ATM cards, customers, M-banking, Information technology (IT).**

### I. INTRODUCTION

A bank is an institution authorized to receive money on current account subject to withdrawal by cheque. The emergency of new technology have prompted many banks to shift operations from manual works (paper based) to automated one including withdrawing money, cash deposit, balance check and money transfer. The use of M-banking through the use of telecommunication companies are growing considerably, services offered by M-pesa which is owned by Vodacom Tanzania Limited, Airtel money owned by Airtel Tanzania Limited, Tigo-pesa owned by Mic Tanzania Limited through Tigo and Ezy Pesa owned by Zantel have made some money movement to be simple task with the aim of saving time in all processes. But for cash withdraw, balance check, mini statements, money transfer and some other payments, customers can use Automated Teller Machine (ATM) to perform those transactions.

Payment cards are considered as the main drivers of the shift from paper-based towards electronic-based payment instruments, which is commonly

viewed as a significant socioeconomic and welfare improvement. Payments systems are going through a period of rapid change with paper-based instruments increasingly giving way to electronic forms of payment. A common feature in banking systems all over the world is the deployment, in parallel, of both automated teller machine (ATM) and point of sale (POS) devices [1].

Automated Teller Machine (ATM) is a cash dispenser that enables bank customers to enjoy banking services without coming in-contact with bank tellers (cashier). ATM helps to perform the duties of the cashier in term of payment services [2]. Automatic Teller Machines (ATMs) have been adopted and are still being adopted by banks. They offer considerable benefits to both banks and their depositors. The machines can enable depositors to withdraw cash at more convenient times and places than during banking hours at branches. In addition, by automating services that were previously completed manually, ATMs reduce the costs of servicing some depositor demands [3].

As per [4], Banks have become the principal deployers of ATMs. Two reasons for this are that they want to increase their market share, although due to the prevalence of ATMs, it is not likely to be the primary means by which ATMs increase profitability for most banks; or/and above a certain level of operations, the cost of a single transaction performed at an ATM is potentially less than the cost of a transaction conducted from a teller, as ATMs are capable of handling more transactions per unit of time than are tellers.

Though ATM industry is growing rapidly, there are many challenges related to security issues of the software, increase of rental costs by the day in major cities, housekeeping, and replenishment of cash. Few banks have introduced biometric ATMs in rural India, which are quite secure and easy to use by a common man [5].

In Tanzania, different banks are now offering ATM cards to their valuable customers. Different studies have been conducted by internal management of different banks operating in Iringa Municipal to have an idea about customer satisfaction and attitudes

towards various products which are offered by those banks but none have researched on attitudes customers hold towards the use of ATMs.

The main objective of this research paper was to analyze the attitude customers hold towards the use of ATMs in Iringa Municipality which up to the time the research was conducted there were only seven banks operating which all have ATMs, those banks namely are Cooperative Rural Development Bank (CRDB), National Microfinance Bank (NMB), National Bank of Commerce (NBC), Tanzania Postal Bank (TPB), Exim bank, Barclays bank and Diamond Trust Bank. There is a total of 21 ATMs located in different angles for different banks in Iringa Municipal, but most of them are located in the areas which are very busy with money movement.

Iringa Municipality is administratively divided into 16 wards namely Gangilonga, Ilala, Isakalilo, Kihesa, Kitanzini, Kitwiru, Kwakilosa, Makorongoni, Mivinjeni, Mkwawa, Mlandege, Mshindo, Mtwivila, Mwangata, Nduli, Ruaha. According to the 2012 census, the population of the Iringa Municipality was about 151,345.

## II. BACKGROUND AND LITERATURE SURVEY

The physical location of banks' delivery channels influence perception of customers about quality. Consistent delivery of services, physical dimensions and staff interaction with customers, trustworthy processes and procedures positively affect delivery of services quality. Pleasant customer interaction with staff significantly affects customers' perception of quality [6-8].

Study done by [9], deduced that ATM as a type of innovation that can mechanically accept deposits, issue withdrawals, transfer funds between accounts, collect bills and make small loans. A well-functioning ATM is a sure way of improving service quality in the banking industry.

As per [10], Empirical evidences indicates that customers perception about Efficiency, Security and Responsiveness, Cost Effectiveness, Problem Handling and Compensation and Contact service related to ATM service is low in both public and privates sector banks (ranging between 3.00 to 3.50). Therefore both types of banks should be aware about these aspects of ATM service to enhance customers' satisfaction.

The overall results shows that cost effectiveness of ATM service were core service quality dimension and it were significantly affecting on overall customer satisfaction in ATM service provided by commercial banks, this is according to [11]. Also according to [12], the study based on the findings concluded that respondents of the Vijayawada are satisfied from the ATM services of public and private sector banks. Respondents also prefer convenience and comfort of the ATM locations in the city.

According to [13], 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.

The research done by [14], indicated the significant dimensions of ATM service quality as convenience, efficient operation, security and privacy, reliability and responsiveness. The study done by [15], made an attempt to find out the perception of customers regarding various issues related to ATM/Debit cards. The study concludes that ATM is very convenient mode of electronic banking.

In their study titled "Analytical study of customer satisfaction at ICICI Bank with special reference to ATMs" [16] analyzed the satisfaction levels of the customers of ICICI Bank holding ATM cards in Udaipur city with respect to service quality of ATM, personnel, location, sufficient number of ATMs in city and found that customers are highly satisfied with ATM services provided by the ICIC bank in Udaipur city.

The review of the literature helped the researcher to come up with the following methodology in order to achieve the objective of the study.

## III. METHODOLOGY

Iringa municipal has a strong business movement because it is a pathway to Dar es Salaam, Arusha and Mwanza where most commodities from Southern highlands are taken to. Due to this many banks have invested and some others are considering to invest in order to win customers, so all of the current banks operating in the municipal have been selected for the purpose of study. Secondary information sources used for the present research include the journals, magazines and internet sources. A well-structured questionnaire was prepared and distributed to the customers of different banks in Iringa Municipal at the ATM terminals, banks and through emails to collect customer information. 110 customers from all banks have been surveyed for the purpose of data collection. The data was collected based on convenience methodology. Customers having strong experience of ATM have been considered as respondents to collect information. The data collected were analyzed through percentages and frequencies in which the data were presented in table formats, pie charts and histograms which were obtained using Excel and some using SPSS (Statistical Package for Social Science). The study was conducted during December 2014 to February 2015.

## IV. RESULTS AND DISCUSSIONS OF THE FINDINGS

The following are the results obtained from primary data which were collected through questionnaires and interviews.

Table 1: The following table shows the gender of the respondents using ATM

| Gender | Frequency | Percentage |
|--------|-----------|------------|
| Male   | 74        | 67         |
| Female | 36        | 33         |
| Total  | 110       | 100        |

The table above shows that male use ATM more than female do and this may be because most of the employee are male compared to female.

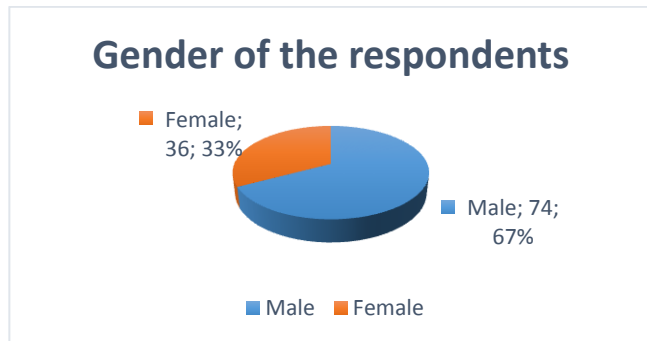


Figure 1: Shows that male tend to use ATM services more than female

Table 2: The following table shows the marital status of the respondents using ATM

| Marital status | Frequency | Percentage |
|----------------|-----------|------------|
| Married        | 49        | 45         |
| Not Married    | 55        | 50         |
| Divorced       | 6         | 5          |
| Total          | 110       | 100        |

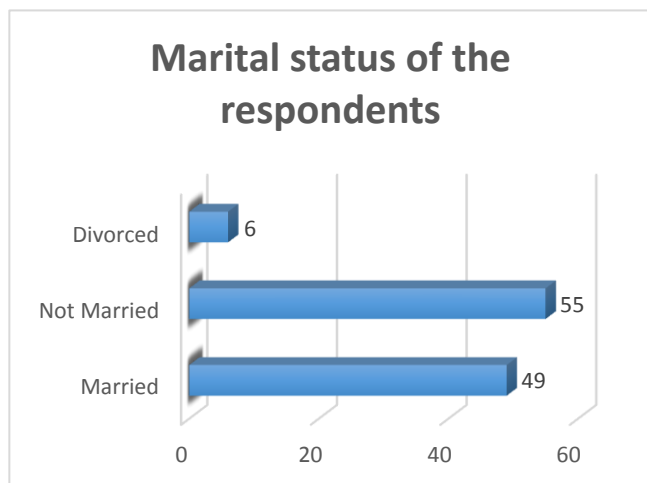


Figure 2: Marital status of the respondents

Figure 2 above shows that, the status of the respondents who used ATM services more frequently was the one who are not married because in Iringa Municipal, most users of the ATM are the one who are employed and the students who most of them are not married.

Table 3: The following table shows the age of the respondents using ATM services

| Age (years) | Frequency | Percentage |
|-------------|-----------|------------|
| Below 25    | 24        | 22         |
| 25-35       | 39        | 35         |
| 35-50       | 35        | 32         |
| Above 50    | 12        | 11         |
| Total       | 110       | 100        |

The above information are also displayed in the following pie chart

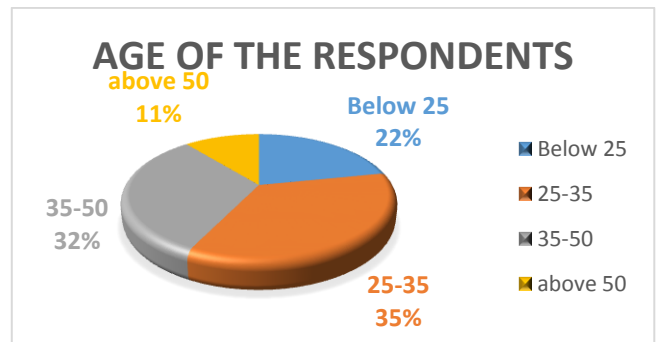


Figure 3: Shows the age of the respondents

From the figure above it can be easily depicted that the most users of the ATM services falls in the age group of the range 25-35 years of age which clearly indicates that the middle generation (Youth) are more aware of the technology service offered by ATMs. While the old generation of the age above 50 were not aware of the technology as only 11% of the respondents were of that category of age.

Table 4: Necessity of the use of ATM services

| Use of ATM    | Frequency | Percentage |
|---------------|-----------|------------|
| Necessary     | 93        | 84.5       |
| Not necessary | 17        | 15.5       |
| No need       | 0         | 0          |
| Total         | 110       | 100        |

The information above are also presented using histogram below

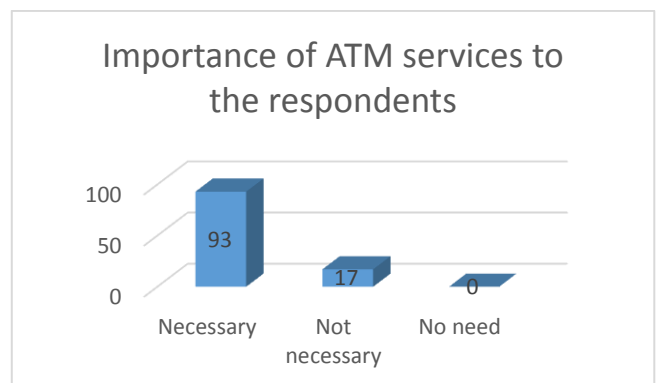


Figure 4: The chart showing the necessity of the use of ATM services

As shown above, most respondents shown faith on the use of ATM services compared to few (15.5%) who said that there is no any necessity of using ATM as they claimed that the introduction of M-banking and the use of mobile phone money services (like M-pesa, Ezy pesa, Airtel money, Tigo pesa, etc) have surpassed the use of ATM as you can withdraw cash anywhere provided mobile phone agents are available, but no one who ignored the importance of ATM as you can see in figure 4 above.

Table 5: Shows the frequent use of ATM

| Frequency use of ATM | Frequency | Percentage (%) |
|----------------------|-----------|----------------|
| Daily                | 0         | 0              |
| After 3 days         | 0         | 0              |
| Weekly               | 45        | 41             |
| Monthly              | 65        | 59             |
| Total                | 100       | 100            |

The information above are also presented in bar chart below

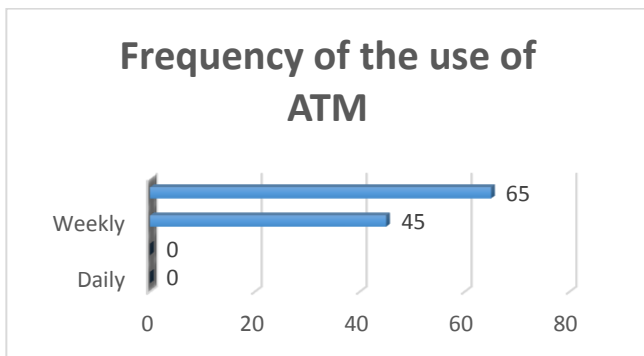


Figure 5: Shows the frequency of the use of ATM services

From the findings in figure 5 above, it can be clear that most of the transactions in ATM are taking place monthly (which means that most of the respondents were employee who are getting monthly salaries), for those who were using ATM services weekly were noted to be students.

Table 6: Showing the location where customers tends to get ATM services

| Location     | Frequency | Percentage |
|--------------|-----------|------------|
| On site ATM  | 30        | 27.4       |
| Off-site ATM | 10        | 9          |
| Any ATM      | 70        | 63.6       |
| Total        | 110       | 100        |

The information above can also be presented in the following chart form

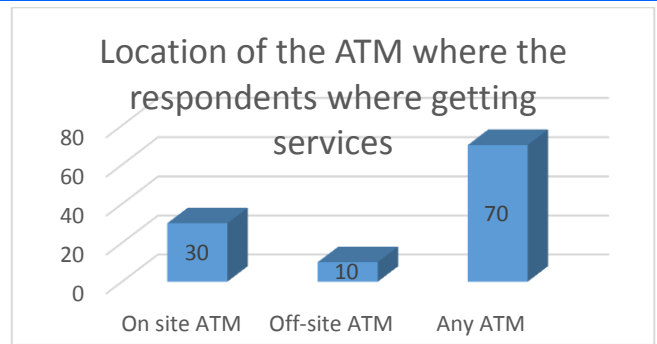


Figure 6: Shows the response from the respondents concerning the location of the ATM where customers were getting their services.

As per information above, most of the respondents preferred to get ATM services in any of the ATM whether they are on site (Near the bank) or off site (Outside the bank). So the location of the ATM is not the case for the customers to get services although some of the respondents during interview revealed that getting services on site ATM is safe because if the system of the ATM goes down then it is easier to get inside and face human teller for the same service which was supposed to be given by ATM.

Table 7: Showing the most common services customers prefers to perform in ATM

| Type of service | Frequency | Percentage |
|-----------------|-----------|------------|
| Cash withdrawal | 98        | 89.1       |
| Balance check   | 2         | 1.8        |
| Mini statement  | 0         | 0          |
| Cash transfer   | 0         | 0          |
| Pay bills       | 10        | 9.1        |
| Total           | 110       | 100        |

The information above can also be presented in the chart below

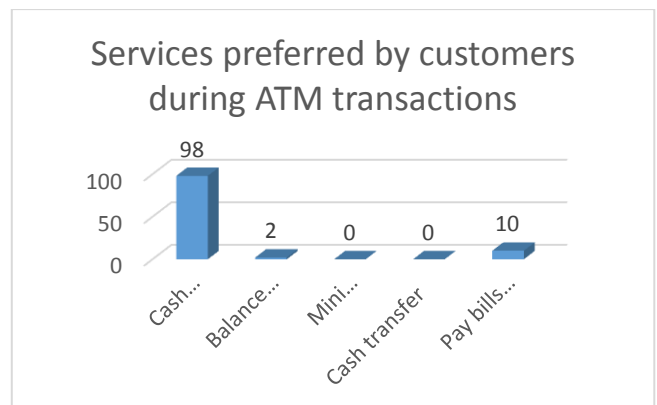


Figure 7: Responses showing the services most preferred by customers

The responses from customers showed that, most of the customers interviewed responded to the cash withdraw service as the most important among all other because 89.1% strongly agreed that they go for

ATM only to withdraw cash while 9.1% were going to the ATM only for payment of different bills like electricity, water, transport, betting and others.

Table 8: Problems associated with ATM services

| Problem faced                          | Frequency | Percentage |
|--|-----------|------------|
| Temporary out of service               | 49        | 44.5       |
| Receipt not issued                     | 6         | 5.5        |
| No cash                                | 20        | 18.2       |
| Long queue                             | 30        | 27.3       |
| Transaction takes too much time        | 0         | 0          |
| Account debited but cash not dispensed | 5         | 4.5        |
| Seizure of card                        | 0         | 0          |
| Total                                  | 110       | 100        |

The information in table 8 can also be presented in the chart below

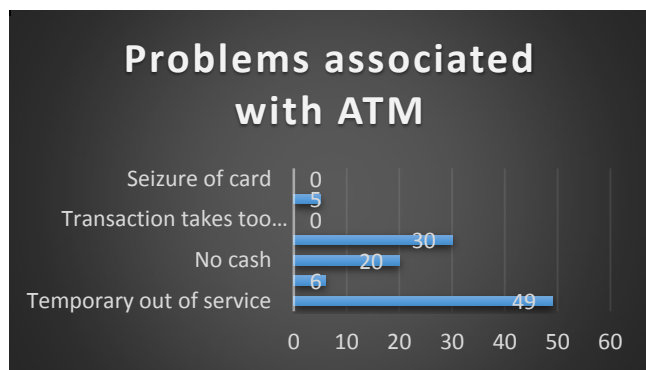


Figure 8: Responses from customers concerning problems faced during ATM transaction

The responses presented in figure 8 above shows that, many customers (44.5%) faced the problem of ATM is temporary out of service which is common problem to almost all 21 ATMs located in Iringa Municipal. A part from ATM is temporary out of service, there was also a problem of long queues which was observed at the end of each month when employees got their salaries or when students were disbursed with their stipends, and during the same period, the no cash problems existed in few ATMs.

Table 9: Occupation of the respondents

| Occupation         | Frequency | Percentage |
|--------------------|-----------|------------|
| Student            | 34        | 30.9       |
| Artisan            | 6         | 5.5        |
| Business man/woman | 10        | 9.1        |
| Employee           | 56        | 50.9       |
| Politician         | 4         | 3.6        |
| Total              | 110       | 100        |

Responses in table 9 above are also presented in the chart below

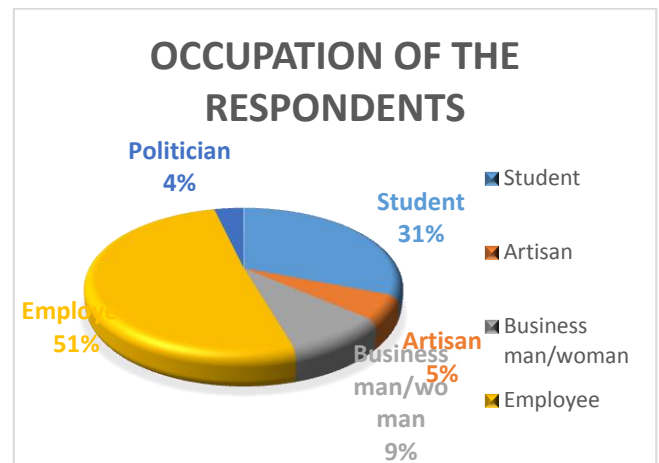


Figure 9: Showing the occupation of the customers who responded to the interview and questionnaire

Most users of the ATM services in Iringa municipal were noted to be employee 51% followed by students who presents 31% of the respondents.

## V. CONCLUSION

According to above discussion of the findings from primary source of data which were obtained through the distribution of questionnaires and interviews, it can be concluded that in Iringa municipal council, there is a great relationship between gender, age, marital status, occupation, and location of the ATM towards the attitude customers hold on the use of ATM services. As it can be observed from figure 9 above where 51% of the respondents were the employed ones and they are aged 25 – 35 years and most of them were male in gender and they have just started job (new employees) so they are currently engaged or they are about to marry, in connection to this study, their attitude towards the use of ATM varies considerably depending on the age group as it can be seen in figure 7 , 89.1% of the respondents preferred using ATM for cash withdrawal only while few preferred other services like balance check and bill payments using any ATM whether on site or off-site and they prefer to use ATM mostly at the end of each month (59% as shown in figure 5 above) rather than weekly or daily usage. Most of the respondents were not satisfied with common problems associated with ATM services like the message displayed on the monitor of ATM that the machine is temporary out of service (44.5% as in figure 8), or it is working but there is no cash, or at the end of the month where most employees are queued for salary collection causing a long queue (27.3%) because there are very few ATMs compared to population of Iringa municipal.

## VI. RECOMMENDATIONS AND FUTURE WORK

For the sake of customer satisfaction towards the use of ATM in Iringa municipal council, the banks operating in the municipal must avoid common problems which distract the customers from the use of

ATM and some of them argue to better face human teller, problems like no cash must be solved wisely by checking regularly the presence of cash, in order to avoid long queue, some more ATMs must be installed in different places like Miyomboni ward, Mtwivila ward, Mkimbizi, Kihesa kilolo, Zizi la ng'ombe and Igumbiro this will solve queue problem. Also the problem of no receipt must be dealt with, bank must act quickly for the case of card seizure.

Banks are argued to pay attention on defected/damaged notes because some ATMs dispense defected notes and this causes some complaints from customers because they cannot hold ATM responsible for this rather than taking risks themselves. Also there have been some few reported cases on fake notes being dispensed by ATMs in some locations and this should also be taken into considerations for customer satisfaction.

In the future research must be done on the customer position on the use of ATM over human teller in Iringa municipal.

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