

## ATM Transaction : A New Time Based Approach

### Research paper

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**ABSTRACT**— The purpose of this research paper is to introduce a new concept of OTP (one time password ) and providing details of the near by ATM and the amount of money currently available in the near by ATM machine if there is a shortage of money in ATM we are currently using for ATM transactions .There is a limitation on the amount of money being withdrawn from the ATM machine. As you all know there is a limit of Rs. 25000 being withdrawn at a time which is being counted as one transaction. This research allows us to withdraw a large amount of money within a time duration of five minutes using OTP which is counted as one transaction and the user can utilize this services for large amount of money being withdrawn per day .different bank has different per day transaction limit.

**Keywords:** OTP, ATM, ATM Card , Cash dispenser, Card Reader.

#### INTRODUCTION

An automated teller machine is an electronic telecommunications device that enables the customers of a financial institution to perform financial transactions, particularly cash withdrawal, without the need for a human cashier, clerk or bank teller.[1] On most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smart card with a chip that contains a unique card number and some security information such as an expiration date or CVVC (CVV). Authentication is provided by the customer entering a personal identification number (PIN).

Using an ATM, customers can access their bank deposit or credit accounts in order to make a variety of transactions such as cash withdrawals , check balances, or credit mobile phones. If the currency being withdrawn from the ATM is different

from that in which the bank account is denominated the money will be converted at an official exchange rate. Thus, ATMs often provide the best possible exchange rates for foreign travelers , and are widely used for this purpose.



**fig. ATM Machine**

#### COMPONENETS OF AUTOMATIC TELLER MACHINE

The research work examines the impact of automated teller machine and effective of teller on bank customer's satisfaction. Automated Teller Machine (ATM) refers to a machine that acts as a bank teller by receiving and issuing money to and from the Automated Teller Machine account holders/ users.

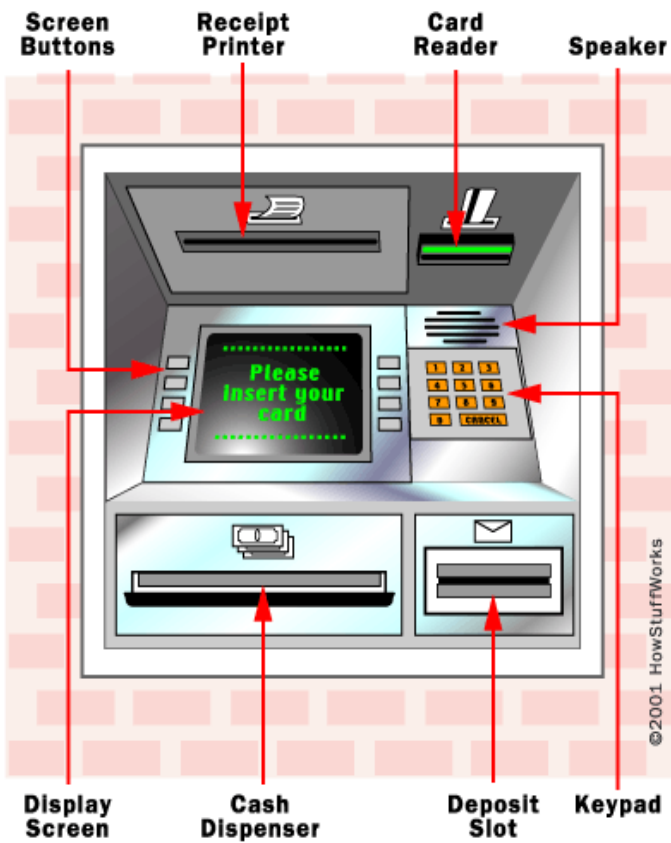


Fig. Components Of ATM Machine [2]

You're probably one of the millions who has used an ATM. As you know, an ATM has two input devices:

- **Card reader** - The card reader captures the account information stored on the magnetic stripe on the back of an ATM/debit or credit card. The host processor uses this information to route the transaction to the cardholder's bank.
- **Keypad** - The keypad lets the cardholder tell the bank what kind of transaction is required (cash withdrawal, balance inquiry, etc.) and for what amount. Also, the bank requires the cardholder's personal identification number (**PIN**) for verification. Federal law requires that the PIN block be sent to the host processor in encrypted form.

And an ATM has four output devices:

- **Speaker** - The speaker provides the cardholder with auditory feedback when a key is pressed.
- **Display screen** - The display screen prompts the cardholder through each step of the transaction process. Leased-line machines commonly use a monochrome or color CRT (cathode ray tube) display. Dial-up machines commonly use a monochrome or color LCD.

- **Receipt printer** - The receipt printer provides the cardholder with a paper receipt of the transaction.
- **Cash dispenser** - The heart of an ATM is the safe and cash-dispensing mechanism. The entire bottom portion of most small ATMs is a safe that contains the cash.[2]
- **ATM CARD** -An **ATM card** is any payment card issued by a financial institution that enables a customer to access an automated teller machine(ATM) in order to perform transactions such as deposits, cash withdrawals, obtaining account information, etc. ATM cards are known by a variety of names such as **bank card**, **MAC** (money access card), **client card**, **key card** or **cash card**, among others. Most payment cards, such as debit and credit cards can also function as ATM cards.[4]



Fig. Debit Card [3]

## WORKING OF AUTOMATED TELLER MACHINE

1. **Practice basic safety procedures.** People using ATMs will occasionally be targets of robberies and other crimes, so you'll want to be sure to be safe. First, make sure that the area is well lit and you are alone. Be on your guard if other people show up. Stand so that your screen and key presses are masked.
2. **Insert your debit card into the ATM.** Mobile banking cards come in two varieties — debit cards and credit cards. Debit cards are most frequently used in ATMs, they're linked to the exact amount you have in your bank account. Credit cards can be used in some cases, but fees and interest rates usually make them expensive to use. Insert your card into the

card slot, facing in the direction indicated by the image on the machine.

**3. Try to use ATMs and debit cards** that are issued by the same bank. For example, if you own a SBI debit card, look for a SBI ATM or local branch. Although you can use almost any debit card on almost any ATM, you will likely be charged an additional fee for withdrawing money if the ATM is for a bank other than one you have an account with. Additionally, some of the services offered by the ATM may not be available if your card and ATM don't match.

**4. Select your language.** Most ATMs will offer transactions in several different languages, usually at least three or more dependent on where you live. during the process you can change the language depending on the machine.

**5. Enter your PIN when prompted.** "PIN" stands for "personal identification number," and it's a four-digit password people use to access their bank account. Enter your PIN number when asked to by the machine, making sure to shield the pad with your hand so that nearby onlookers can't see it. You should also watch out for cameras that are placed on the ATM itself, as these can be placed by criminals in order to steal your card information.

**6. Withdraw money.** You can withdraw money from almost any ATM, regardless of the associated bank (though this may incur fees).enter the amount of money to be withdrawn using keypad.

**7. Withdrawing money based on time.** We can withdraw money in two or more transaction based on time, which will be treated as a single transaction.

**8 .OTP (One-Time Password):** once u insert the PIN,it takes you to the services provided by the BANK .when you enter the money details for withdrawal which exceeds bank's per day limit ,an OTP service is asked on screen, if user opt for it then OTP is generated and which will be sent to the user's

mobile number and you need to insert that password on screen and complete the transaction.

**9. provide details:** If the required money is not available in the ATM machine, then current ATM provides detail of near by ATM location, money details so that the user's transaction don't get interrupted midway.

#### **ADVANTAGES OF AUTOMATIC TELLER MACHINE:**

- You can withdraw cash at any time, day or night.
- ATMs offer the convenience of multiple locations.
- Your ATM card is protected by a PIN, keeping your money safe.
- You don't need to fill out withdrawal and deposit slips as is required at the bank.
- ATMs are faster than going to the bank—no long lines.

#### **DISADVANTAGES OF AUTOMATIC TELLER MACHINE:**

- If you forget your PIN number you cannot use the card.
- Training is needed.
- Fraud.
- ATM may be off-line (system down).
- Fees charged to use ATMs of other banks can become expensive.

#### **REFERENCES:**

- [1][http://en.wikipedia.org/wiki/Automated\\_teller\\_machine](http://en.wikipedia.org/wiki/Automated_teller_machine)
- [2]<http://money.howstuffworks.com/personal-finance/banking/atm3.htm>
- [3] <http://internationalbusinessnew.blogspot.in/2014/01/sbi-international-business.html>
- [4] [http://en.wikipedia.org/wiki/ATM\\_card](http://en.wikipedia.org/wiki/ATM_card)

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