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A Comparative Analysis of Bank ATMs Cash Withdrawal Processing in Asangaon City of Maharashtra

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ABSTRACT: Rapid advancements in information and communication technologies have provided growth in almost all sectors including the banking sector. The banking sector involves a network or a group of financial institutions that provide banking services to corporate and individual customers. It includes the Central Bank (The Reserve Bank of India), Cooperative Banks, Commercial Banks, Regional Rural Banks, Local Area Banks, Specialized Banks, Small Finance Banks, and Payments Banks. In 1996, Electronic banking also known as E-banking or online banking was introduced in the Indian Banking sector. Today Automated Teller Machine (ATM) is the most widely used E-banking service concerning mobile banking, internet banking, SMS banking, credit cards, and E-wallets. In the present scenario, the primary use of ATMs is cash withdrawal using a debit card. There are a lot of ATMs available in India with different and advanced cash withdrawal processes, thus there is a need for comparison between them to aware society. This paper deals with comparing the strengths and weaknesses of every ATM in terms of ease of use and security in cash withdrawal using a debit card.

KEYWORDS: -Automated Teller Machines, Cash Withdrawal, Debit Card, Personal Identification Number, Authentication, Security.

I. INTRODUCTION

The financial sector plays a very important and crucial role in the development of the world economy. To sustain in the modern world of advancements and technologies, growth in the financial sector can lead to huge profits and the development of a country. The development in the financial sector is based on the growth of numerous banking and non-banking financial institutions. The banking sector comprises a network or a group of financial institutions that provide banking services to corporate and individual customers. It includes the Central Bank (The Reserve Bank of India), Cooperative Banks, Commercial Banks, Regional Rural Banks (RRB), Local Area Banks (LAB), Specialized Banks, Small Finance Banks, and Payments Banks. Non-banking sector comprises insurance firms, currency exchanges, venture capitalists, microloan organizations, pawn shops, etc. For development banking sectors have diverted their objectives from making profits to growth-oriented goals. Many innovations like mobile banking, internet banking, SMS banking, credit cards, and E-wallets have helped in the growth of the economy and banking sectors.

In 1996, Electronic Banking also known as E-banking or online banking was introduced in the Indian banking sector and Automated Teller Machine (ATM) became the most commonly and frequently used E-banking service. ATMs play a very important factor in economic development because of their use, and customer satisfaction.

Automated Teller Machine (ATM): -Automated Teller Machine (ATM) is also known as Automated Banking Machine (ABM) in other countries (Canada), cash point, cash machine, mini bank, cash dispenser machine, etc. It is an electronic telecommunication machine primarily used to perform financial transactions, particularly cash withdrawal from personal accounts without the involvement or direct interaction with any bank staff like clerks, cashiers, etc. ATMs are also used for cash deposits, fund transfers, balance inquiries, mini statements of an account, mobile banking registration, mobile number updation, paying additional bills like utility bills (electricity bill, gas cylinder refueling bill), loans, insurance premiums, etc. These machines are user-friendly with an easy electronic display screen and a speaker for the step-by-step procedure to the customer. It operates on a 24*7 basis to help the customers.



ATM Card: -ATM card also known as a bank card, MAC (Money Access Card), client card, key card, or cash card is a payment card issued by a financial institution that enables a customer to access their financial accounts. Debit cards, credit cards, prepaid cards, etc, are some of the ATM cards in India.

Debit Card: -Debit card is a plastic smart card with a magnetic strip and microchip that contains a 16-digit unique number for every individual customer. It also contains some security information like the expiration date of the card and CVV (Card Verification Value). A Personal Identification Number (PIN) is used for the authentication of every customer. This card can be used to do all financial transactions like shopping bill payments, cinema ticket booking, hospital bill payments, mobile recharge, and several other purposes.

Today cash withdrawal using a debit card is the most common service used out of many services provided by the ATMs. Thus, this paper deals with highlighting all the merits and drawbacks of the different bank ATM cash withdrawal processes using a debit card to aware society of them and decide which one to choose concerning ease of use and security.

II. REVIEW OF LITERATURE

[1] The study focuses on the relationship between ATMs and POS (Point of Sale), the usage of ATMs cards and their impact on the demand for currency.

[2] The study explains how their proposed system is a good and cost-effective measure for implementing well-secure ATM transactions to protect ATM users from fraudsters using multifactor authentication that includes fingerprint verification after PIN verification.

[3] The research paper mainly explains the popularity and increased usage of ATMs as it permits customers to do anywhere and anytime banking.

[4] In this paper, the researchers have proposed various new mechanisms to authenticate the users.

[5] This research paper focuses on a three-layered architecture including PIN, OTP, or fingerprint and pattern lock has been used to mitigate fraud.

OBJECTIVES: -

1. To understand the cash withdrawal process using a debit card in five frequently used ATMs.
2. To highlight the pros and cons of every ATM regarding user-friendliness and security.
3. To suggest the best (best here means easy to use and without comprising security) ATM for cash withdrawal using a debit card.

III. RESEARCH METHODOLOGY

The research methodology used in this paper is qualitative and is based on primary data. The qualitative research method is a method that does not include numerical data instead is used to understand people's experiences, beliefs, attitudes, and behavior. Primary data also known as first-hand data is original data collected for a specific purpose. It is collected through telephonic interviews, face-to-face interviews, and questionnaires. In this research, data is collected with the help of standardized questionnaires or interviews with a sample of respondents from a population (population is sometimes referred to as the collection of people or objects which possesses at least one common characteristic).

SCOPE OF THE STUDY: -

This paper gives a clear idea of the cash withdrawal process using a debit card in five frequently used ATMs. It explains the merits and drawbacks of each ATM concerning ease of use and security. Finally, it provides a suggestion of the best fit (ATM) in this scenario. In the world of advancements and choices finding an easy-to-use ATM for cash withdrawal using a debit card without comprising security is the main goal of this paper.



DISCUSSION: -

The digital world is full of advancements in information and communication technologies. There are various bank ATMs with cash withdrawal processes available to help customers to withdraw cash.

1. State Bank of India- Automated Teller Machine (SBI ATM):

For cash withdrawal at SBI ATM through a debit card you need to have SBI or any other bank's debit card along with a mobile phone with the registered mobile number in the bank. After inserting the card and choosing the "Banking" option, you need to enter a two-digit number between 10 and 99. Entering the correct Personal Identification Number (PIN) is mandatory for further processing. Selecting the "Cash Withdrawal" option and choosing the account type, will lead you to a screen for entering the amount that you wish to withdraw.

If the entered amount is Rs. 10,000 or above then you will be asked to enter One Time Password (OTP) received on your registered mobile number via SMS. After entering the correct OTP, the transaction will be completed and thus you can collect your card and cash (and/or receipt, if applicable).

2. Industrial Credit and Investment Corporation of India- Automated Teller Machine (ICICI ATM):

For cash withdrawal at ICICI ATM through a debit card you need to have ICICI or any other bank's debit card. After inserting the card and entering the correct PIN you need to select the "Cash Withdrawal" option and choose an account type. Further, a screen for entering the amount that you wish to withdraw will be visible for you to enter the amount. After entering the amount, the transaction will be completed and thus you can collect your card and cash (and/or receipt, if applicable).

3. Housing Development Finance Corporation- Automated Teller Machine (HDFC ATM):

For cash withdrawal at HDFC ATM through a debit card you need to have HDFC or any other bank's debit card. After inserting the card and selecting the "Withdraw Cash" option you need to choose an account type. Entering the correct amount to be withdrawn and PIN is mandatory for further processing. The transaction will be completed once you have entered the correct PIN and thus you can collect your card and cash (and/or receipt, if applicable).

4. BANK OF BARODA- Automated Teller Machine:

For cash withdrawal at the Bank of Baroda ATM through a debit card you need to have a Bank of Baroda or any other bank's debit card. After inserting the card and entering the correct PIN you need to select the "Withdraw" option and choose an account type. Further, a screen for entering the amount that you wish to withdraw will be visible for you to enter the amount. After entering the amount, the transaction will be completed and thus you can collect your card and cash (and/or receipt, if applicable).

5. Axis Bank- Automated Teller Machine (Axis ATM):

For cash withdrawal at Axis ATM through a debit card you need to have Axis or any other bank's debit card. After inserting the card and selecting the "Cash Withdrawal" option you need to choose an account type. Entering the correct amount to be withdrawn and PIN is mandatory for further processing. The transaction will be completed once you have entered the correct PIN and thus you can collect your card and cash (and/or receipt, if applicable).

FINDINGS: -

This study found various strengths and weaknesses of five frequently used bank ATMs regarding the cash withdrawal process using a debit card. One of the strengths of SBI ATMs is that it enforces the customers to enter a two-digit random number between 10 and 99 to ensure the customer that the keypad is working properly as while entering the number the customer can see it on the screen. The main reason for doing this is SBI does not want their customers to make any mistakes while entering the PIN if the keypad is not working properly because if the PIN is entered



incorrectly more than three times the card would be blocked for 24 hours. Another strength is that it allows OTP-based cash withdrawal system since January 1, 2020, to safeguard people from unauthorized transactions at ATMs. OTP (One Time Password) is a 4-digit number that is used to authenticate the user for a single transaction. Thus, SBI ATMs are highly secure when it comes to cash withdrawals through a debit card. However, it has its limitations too that the procedure is long and a little time-consuming. The security it provides mitigates these drawbacks and makes SBI ATMs a good candidate on which one can rely for cash withdrawals using debit cards.

Ease of use is the advantage provided by ICICI ATMs and Bank of Baroda ATMs. They are easy to use since the process is less time-consuming and too short. However, they lack security as first PIN needs to be entered by the customer and then the amount. This can lead to tampering with the amount that needs to be withdrawn.

HDFC ATMs and Axis ATMs provide security against tampering with the amount as it first accepts the amount to be withdrawn and then the PIN. They are also easy to use like ICICI ATMs and Bank of Baroda ATMs but they are not highly secured like SBI ATMs.

SUGGESTIONS: -

ATM Cash withdrawal is an E-banking service that enables its customers to withdraw cash with an easy-to-use process and security. Bank customers always want an easy cash withdrawal process to use without compromising security to prevent themselves from frauds such as card cloning, card skimming, etc. After analyzing and comparing five frequently used ATMs based on the use of use and security, this paper suggests that SBI ATM can be the best choice to withdraw cash using a debit card because of its easy and highly secured process.

IV. CONCLUSION

The banking sector plays a crucial role in the development of a country. In 1996, considering digitalization and advancements in information and communication technologies, E-banking was introduced in the Indian Banking sector. Today cash withdrawal using a debit card through an ATM is one of the most frequently used E-banking services. This paper has compared and analyzed five frequently used bank ATMs for cash withdrawal processing using a debit card. It also has briefly elaborated on the processing of every ATM individually and enumerated its strengths and weaknesses. Since the ATM should meet certain requirements that are ease of use and security which means the processing should be easy without compromising security. SBI ATM is the best fit in this scenario because it is highly secured as it involves OTP-based cash withdrawal, which is a little long process as compared to other ATMs but is also easy to use. Another reason that influenced our choice is that ATMs are quite secure as it accepts a two-digit number to prevent customers from pressing the wrong PIN. SBI understands that precaution is far better than cure and thus, becomes the best choice for cash withdrawal through debit cards as compared to other ATMs.

The Reserve Bank of India (RBI) on April 8, 2022, made an announcement of the availability of a cardless cash withdrawal facility at all ATMs across all the banks in India using UPI (Unified Payments Interface). This facility can be used for self-cash withdrawal. It was introduced to enhance the ease of transactions and security to prevent frauds such as card cloning, card skimming, etc. Some banks (SBI, ICICI, HDFC, etc.) have implemented this facility and in the coming years most probably all the banks will opt for it.

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