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UPI Cash

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ABSTRACT: The Interoperable Cardless Withdrawal (ICCW) service known as UPI-ATM enables customers of participating banks who use UPI to make cash withdrawals from any ATM that is UPI-enabled without the need for a card. The customer will be prompted to enter the withdrawal amount at the ATM after choosing the "UPI cash withdrawal" option. A signed, single-use dynamic QR code will appear on the ATM screen once the amount has been entered. To withdraw cash from the ATM, the user must scan the QR code with any UPI APP* and confirm the transaction using a UPI PIN on their smartphone (UPI APP). Although a handful of banks provide cardless cash withdrawals via OTPs and cellphone numbers, the UPI-ATM uses QR codes to process cash transactions.

KEYWORDS: UPI scanner, ATM machine simulator

I. INTRODUCTION

The Interoperable Cardless Withdrawal (ICCW) service known as UPI-ATM enables customers of participating banks who use UPI to make cash withdrawals from any ATM that is UPI-enabled without the need for a card. The customer will be prompted to enter the withdrawal amount at the ATM after choosing the "UPI cash withdrawal" option.

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The primary purpose of UPI, or Unified Payments Interface, is to facilitate digital transactions and transfers. We don't usually utilize it to withdraw cash. On the other hand, a few banks and financial organizations have implemented services like cash-out services or ATMs that support UPI, enabling customers to take out cash by just using their UPI ID or scanning a QR code. These offerings are still somewhat new and can differ depending on the bank and the area, so it's important to verify with your bank for precise details. This expansion would encourage more people to use UPI as a payment method and increase everyone's convenience. It can make your experience smooth and compatible, allowing you to take out cash without a physical card. For instance, a consumer with a bank account linked to UPI can approach any ATM, use UPI authentication to start a card-less cash withdrawal, and withdraw cash without needing to use a physical card.

II. LITERATURE REVIEW

The purpose of this research paper is to use your phone to take out cash from an ATM without having to touch it physically (in [1]). In order to increase ATM cash withdrawal operability in less time with enhanced security features without touching it, this function is being proposed. By adding new features to both the ATM and the mobile banking app, it is feasible to integrate both the ATM machine and the mobile banking app, making cash withdrawals from ATMs simple and reducing the amount of time required while also increasing safety, security, and dependability.



ATM transactions are now considered standard procedures in people's daily lives [3]. Card users confront a number of issues, including lengthy queues, interruptions, interaction times, urgency, physical obstacles, memorizing PINs, co-located user displays, interaction speeds, and environmental factors [1][2]. Fraudsters are coming up with new ways to target the outdated card technology.

Within [4] The reliance on banking in the virtual world has reached a height these days. Utilizing cutting-edge technologies is necessary to make it consistent. The suggested method cuts down on the amount of time needed to withdraw cash from ATMs by integrating mobile banking with ATMs. Transaction speeds will increase by nearly three times as a result, which might greatly improve consumer satisfaction.

Within [5] This paper aims to provide a comprehensive research project plan for a new Information and Communication Technology (ICT) feature for the banking sector's cardless transactions. After reviewing the body of research on ICT features seen in banks, we suggested a novel feature.

Within [6] The demonetization and digital India initiatives have given the Indian banking sector more impetus to continue pushing for the widespread use of digital payments. The "Unified Payment Interface (UPI)," which was introduced by "The National Payment Corporation of India (NPCI)" to enable digital payments, is a fantastic, updated, and reasonably priced innovation that makes it possible for everyone to use digital payment services. The widespread adoption of smartphones, technological advancements, and efficient internet connectivity have signaled the use of mobile payment services by financial institutions, especially banks, and smartphone users.

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III. METHODOLOGY

Customers select the 'UPI cash withdrawal' option or a similar term on the ATM and choose their desired withdrawal amount.

Subsequently, a unique dynamic QR code appears on the ATM screen. Users scan this QR code using any UPI app and validate the transaction by entering their PIN on the mobile app. Once confirmed, the ATM dispenses the requested cash.

Once the customer selects the option 'UPI cash withdrawal' at the ATM, the customer shall be prompted to enter the withdrawal amount. After entering the amount, a single-use dynamic QR code (signed) shall be displayed on the ATM screen.

The customer needs to scan the QR code using any UPI APP and authorize the transaction with a UPI PIN on the mobile (UPI APP) to get cash from the ATM.

With cardless ATMs, you can access your account and make cash withdrawals without a card. Rather, they depend on account verification through text message or a mobile banking app.

There are numerous ways in which cardless ATMs can operate. Quick response (QR) codes, near-field communication (NFC), verification codes, and biometric verification are a few examples of cardless technology types.

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Android: At the moment, OTPs and cell numbers are required for cash withdrawals made without a card. Using UPI-ATM, transactions are completed through QR codes that can be scanned with UPI apps that are loaded on iOS or Android smartphones. It is said that the Android operating system powers the UPI ATM.

MySQL: MySQL ensures data integrity and system dependability by storing and managing user account data, transaction logs, and security measures in UPI cash withdrawal systems.

1. In Mobile Banking Application: Transactions can be completed anywhere, at any time, by using the mobile banking application. So, a new column called "Cash Withdrawal" needs to be added in the mobile banking application, just like many other columns like fund transfer, balance check, transactions check, etc., to reduce the time it takes for customers to withdraw cash, save time at the ATM, and complete contactless transactions.

Here, the user only needs to enter the ATM PIN and the amount they wish to withdraw. Then, they can click "Generate," and a QR code containing the bank details needed for automatic ATM authentication will be generated instantaneously.

2. In the ATM: With this new feature, no actual smart card or ATM card is needed to withdraw cash from the ATM. A scanner or built-in camera that can read the QR Codes produced by the mobile banking app is required. Following the addition of this new capability, the ATM will reroute in order to use QR Code Information to check account and transaction information from the bank's server. When a mobile device scans a QR code to complete a transaction that is already on the server, cash comes out of the ATM and the transaction is deemed successful. And following this stage, money will be subtracted.

Nevertheless, the system will issue a notification for no such transactions or invalid inputs if there is any difference or if the time limit is exceeded. Since it is evident

On Bank Server: This feature requires a new table on the Bank’s server that is attached with every account needs to be created without changing the existing ones. This new table contain the required fields that is related to a cash withdrawal transaction made by Mobile Banking App. This table only contain the data for one transaction only because only one QR code can be generated at a time using Mobile Banking App

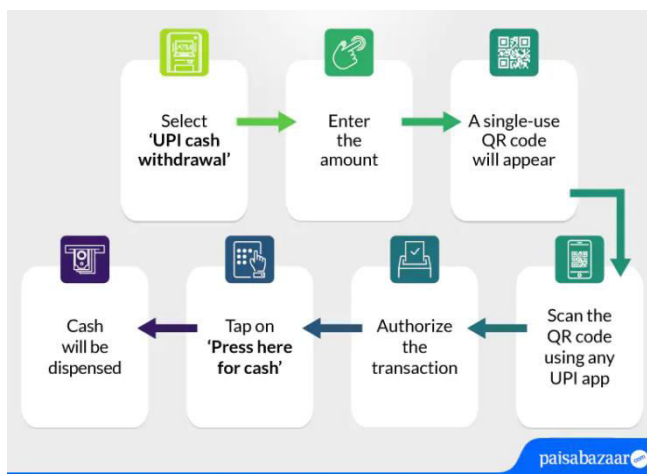


Fig.1 UPI cash Architecture



IV. RESULTS AND CONCLUSION

Saving Customer time and contactless transaction from the ATM machine is the major objective of this Research by utilizing stand by time in the ATM waiting queue.

Nowadays, a successful transaction on ATM machine takes at least 40 seconds or more, but by integrating these new features, a successful transaction can be done.

within 4-5 seconds. That means it is saving time up to 75% as well as allowing users to withdraw money without coming in contact with anybody which will be beneficial in situations like COVID.

These features provide security to user as there is no need of carrying the ATM card, so no chance of theft as well as user can be withdraw money without concerning about Tempered keyboard or Hidden Cameras.

V. HARDWARE AND SOFTWARE REQUIREMENT

Operating System : Windows 7

Language : PHP(5.5.6)

Sever : Xampp(5.6.14)

Web Technologies: HTML5,CSS3,

JavaScript,Ajax,Query,PHP

Web Brower : Google Chrome

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