

Queueless Banking Management System

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Abstract:

In the current scenario, the usage of the Internet has revolutionized the entire banking system. People can bank anytime, anywhere without needing to visit a bank branch. This helps customers in saving time by completing work at the click of a button. Online Banking Services are increasing day by day in the banking sector in India. In this context, an effort has been made to inspect and evaluate Internet banking and enhance the banking situation by the digitization of all the offline forms into online forms. Example: - Cash withdrawing and depositing form, NEFT, Account opening, applying for Loan etc.

1. INTRODUCTION:

Online banking, also known as internet banking, e-banking, or virtual banking, is an electronic payment system that allows bank customers to make a variety of financial transactions through the websites of financial institutions. The banking sector is one of the main beneficiaries of the Internet Revolution, and the growth of banking technology products is increasing significantly. The main advantage of internet banking is that you can pay for the service at home without having to go to the branch office. This allows customers to complete transactions in a fraction of the time, saving both time and effort.

According to a study conducted by Capgemini and BNP Paribas, digital payments are expected to reach approximately 726 billion transactions by 2020. On November 8, 2016, Japan has begun to steer toward a cashless society. The Demonetization Act has brought existing mobile payment applications such as Paytm, Google Pay and PhonePe into the limelight. (Shetty, 2020)

PhonePe is a digital wallet company with its headquarters in Bangalore and is the first app built on Unified Payment Interface. It is a UPI based app that allows users to make transactions using PhonePe wallet, credit/debit card or UPI. This app allows to pay utility bills, do recharges and transfer money. Paytm has its headquarters in Noida, UP. It is available in 11 languages. An additional feature added in of this app is that users can get cashback in the form of gold. Paytm offers banking facilities in the form of Paytm Payment Bank, allowing you to open accounts for free. User can deposit an amount of 1 lakh in this account, which also earns 3.5% interest (BusinessToday.in, 2019). May scan QR code with Paytm app to make payment.

Google Pay only allows transactions with UPI. There is no wallet feature, and the app is linked directly to your bank account. Users can also earn Rs. 51 By inviting a friend to perform all transactions via the referral link (Offer of World, 2019). Also, the first transaction of in this app will provide user with a certain amount of scratch cards.

There are many other online banking apps like Google pay, PhonePe, and Paytm. These all have transaction functions, but all these applications don't support any functionality for online withdrawal and deposit of cash. Traditionally we fill out the different offline forms by visiting the bank, but this process is so lengthy and erroneous. So, to replace it with an efficient process our POCKET BANK app will do the form filling and the rest is up to you.

The traditional system is replacing by the digital system. The traditional payment systems are Cheques, withdrawals, drafts, money orders, letters of credits, travel cheques etc. why Payment systems also turning into electronic payment system using computer and internet there are several reasons of adaption. The most common reason is that the traditional system has some leakages and inefficiency and that's overcome by the digital payment system. But in India digital system is in emerging trend and not so popular and generalized. Currently, the most popular electronic funds transfer systems such as debit cards and credit cards are used in India, but electronic funds transfer, internet banking, unified funds transfer system "UPI", e-commerce payment system, internet banking, * 99 # Is used, such as USSD-based payment systems, is not

widely used. Therefore, it is important to know the problems of digital payment systems and the progress of in India (Babulal, 2021).

According to the National Forest Service Website, as much as 85% of the tree used in the making of paper and paper products and coniferous. This is also one of the major problems for global Warming. According to the survey performed in the Bank of Baroda (India), it was found that around 400 per day paper form are used in an average sized bank. Also, there are total 86,887 public sector banks, 31,037 private sector banks and around 5000 cooperative, foreign and regional rural banks.

So, to reduce paper wastage and move a step towards digitalization here we come with an idea of POCKET BANK which makes it easy to deposit/withdraw cash in different banks.

2. EXISTING SYSTEM:

A mobile wallet or e-wallet app or e-wallet is an app consisting of debit and credit card information that helps users make digital payments for goods and services using their mobile devices. The most popular online payment apps or payment apps or electronic wallet lists in India are (Keelkatalai & Nanganallur, 2021):

- Google Pay: - Google Pay is a digital wallet platform and online payment system developed by Google that enables in-app, online, and face-to-face contactless payments on mobile devices, allowing users to use Android phones, tablets, and more. And make payments possible.
- Payzapp: - Payzapp is a complete payment solution that allows you to pay with the help of with one click. With this app, individuals can buy products from partner apps, book movie tickets, send money to anyone, and pay utility bills.
- PhonePe: - Phone pe is an Indian digital wallet platform and online payment company. With PhonePe, users can send and receive money, mobile phones, DTH, data card replenishment, utility bill payments, store payments, tax-saving fund investments, cash investments, insurance, and gold mutuals. You can make a purchase of funds.
- Paytm: - Paytm (an abbreviation for "Paythrough Mobile") is an Indian multinational e-commerce payment system and financial technology company based in Noida, Uttar Pradesh, India. Paytm is currently available in 11 Indian languages and uses cases such as mobile replenishment, utility billing, travel, movies, and in-store payments at grocery stores and educational institutions. Provided in code.
- Kotak 811: - The Kotak 811 is a zero-balanced digital banking account available to everyone (only for Indian residents). With Kotak 811 you can choose between a Zero Balance Account or an 811 Savings Account depending on your needs. It serves as a daily one-stop solution for all financial needs' daily transactions.
- Bhim UPI: - Bhim (Bharat Interface for Money) is an Indian mobile payment app based on the Unified Payments Interface (UPI) developed by Payments Corporation (NPCI) nationwide in India. Named after the B.R. Ambedkar, it was released on December 30, 2016. It aims to facilitate cashless transactions by facilitating electronic payments directly through banks.
- Free Charge: - Free Charge, a wholly owned subsidiary of Axis Bank Limited, is one of the electronic payment applications. It is based in Gurgaon, Haryana. ... For free, users can pay utility bills, mobile phone charges, broadband charges, subway card charges, landline charges, and DTH charges.

2.1 Disadvantages of current online payment applications:

All current online banking applications such as Google Pay, PhonePe and Amazon Pay do not support online withdrawal and deposit forms in addition to NEFT, account opening and other offline forms.

• How will POCKET BANK overcome this?

This app will be considered as the successor of the above applications in addition to having features supporting online cash withdrawal and deposit forms. It will include all the banks in India and thus provide all the details of each bank including loaning interests, account opening, Credit card limit, ATM pin change etc.

3. LITERATURE REVIEW:

Much research has been done around the world on payment apps and methods. Some of these studies were reviewed as follows:

(Rathore, Hem Shweta, 2016) In today's world, smartphones have become an integral part of the daily life. Today, thanks to technology, mobile users can use their smartphones to trade and pay money using applications installed on their phones. If the smartphone can function as a leather wallet, it is known as a "digital wallet" or more broadly as a "mobile wallet".

(Nair, Amal, Manisha Dahiya, and Naman Gupta, 2016) Wallets have been used from thousands of years to protect and carry personal items of value. The earliest value wallets or satchels were a piece of cloth tied with a piece of string which enabled a range of items such as coins to be carried out to market. Humans have always been mobile and have needed a container to securely carry personal items. People consume for both necessity and pleasure. Basic items such as food and clothing are purchased on a regular basis, but people also buy goods which are only for enjoyment purpose.

(DR.S. Manikandan, 2017) In today's world, smartphones can play an important role in the daily lives of 4,444 people. Advances in technology have transformed smartphones into devices that allow mobile users to trade and pay money using applications installed on their phones. The current survey shows different factors that influence the application and use of wallet money supported by different companies, and the decision of consumers to adopt mobile wallets, and the different risks of faced by mobile wallet users. The purpose is to explain the issues.

The increase in the use of Indian government initiatives and mobile phones and the Internet, such as (Akhila Pai. H, 2018) "Digital India", is the main reason for the exponential increase in the use of digital payments. Even if the idea of digitization came out years ago, it has recently regained its pace of growth. This is due to the lack of awareness and knowledge of people, fear of online payments, and security issues. The e-Payment system is enhanced only by raising awareness of the minds of people. However, in the current scenario, India has seen a significant increase in available digital wallets, moving slowly towards a cashless economy.

(T. Praiseye, 2018) Mobile phones are used everywhere in this modern world. Advances in technology make everything possible at the push of a button. By using the application installed on your mobile phone, users can pay invoices and send money to anyone. The increasing use of mobile phones and the internet is the main reason behind the widespread use of 9mobile wallets. This survey was conducted to find out the factors that influence consumer preferences for mobile wallets.

(Tiwari, Pooja, Vikas Greg, Abhishek Singhal, 2019) In today's fast-paced lifestyle, people need to adopt more convenient and safer devices to make their lives more convenient. To achieve this goal, there is an innovative product called a digital wallet. A digital wallet is an electronic device or service provided to an individual to enable them to perform electronic transactions. The best example of a digital wallet is online shopping. Also known as e-wallet. Today, people like online shopping. Online shopping has the advantage of less time-consuming items such as Paytm and PayUMoney.

(Gurme, Vijayashri Machindra, 2019) E-wallet money is used in various areas of business in the world of, including businesses, banks, and clients. Banks are ranked in the top by providing better banking services and payments for their customers' needs. For customer, E-wallet's shopping opportunities are taken advantage of and customers are attracted to for convenient and fast transactions.

(Singh, Gagan Deep, 2019) In the growing era of technology digitization, many of the people used plastic money in the form of debit cards, credit cards, and other cards offered by numerous respective commercial banks. The banking industry had a variety of payment products, including core banking services, instant payment services, online banking, and mobile banking. However, it turns out that people need an easier and easier payment method. Therefore, this gap is filled by a digital or e-wallet. This paper was created to find changes in adoption behaviour and daily payments or transactions.

(Kaur, Puneet, et al, 2020) Find out that mobile wallet apps have increased dramatically. This helps to be effective against customers and transactions and security payments on behalf of these mobile wallets that have not yet been expanded on the market.

(Gupta, Knavish, Nupur Arora, 2020) Shows that perceived ease of use and perceived usefulness have a positive impact on attitudes towards mobile payment adoption. In addition, there is a clear positive link between attitudes towards mobile payment adoption and the intent of mobile payment adoption. The current study examines the impact of attitudes towards mobile payment systems on the intent to adopt mobile payment systems through the application of the technology acceptance model.

(Singh, Sindhu, 2020) The author points out that technological advances in mobile phone have made mobile payments more popular. Users can shop online via the time-saving and convenient mobile device. Mobile payment systems include an ongoing interaction between users and payment providers. Although the initial adoption of mobile payment systems has been extensively studied, few studies have attempted to understand user behaviour after adoption.

(Ghosh, Gourab, 2021) Explains that advances in information and communications technology have opened the door to the latest payment methods. The growth of smartphones and access to the Internet have made people's lives easier and led to digitalization. Digitization not only improved trade and commerce, but also made payment transactions smoother and faster.

(Anshari, Muhammad et al, 2021) With the introduction of E-wallet, financial institutions may improve the efficiency of and offer new services for the convenience of customers. Young people are really adapting to these payment apps. They really satisfy customers with simple transactions and payments

4. METHODOLOGY:

This application contains two main Modules: Customer and Bank employee.

Customer can use the feature of this app such as form to deposit, withdraw money, or even make payments through UPI. Customer can also pay various bills integrated in the application. When customer wants to deposit or withdraw money from the bank offline, he/she must fill the digit form in the application and he/she then has to unique ID of the corresponding digital form to employee for security purposes to show verify customer authenticity. Thus, it saves time, paper and removes waiting in long queues in the bank and promote social distancing which is necessary in current scenario.

4.1 Logic and Need of Application:

Need of this app starts with a small survey in which different banks branch managers were asked about the problems faced by them during large number of customers waiting for their service and how you deal with it. The answer was really desponded with most of the customers have to come next day. And asked about the total offline forms used per day.

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Now coming to the all the offline forms used in each branch of banks are nearly about 550 per day which equals to 2.0kg and the cost needed daily on paper is approximately 84Rs, at the rate of 42 Rs/kg in each branch. Since there are around 1,22,924 branches of banks in India approx. see in table 1 and 2. So, from the above data approx. 1 Crore is used on paperwork in banks daily.

List of PSU Banks	Number of Branches	Number of ATMs	Headquarter
State Bank of India (SBI)	24000	58559	Mumbai
Punjab National Bank (With Merger of Oriental Bank of Commerce and United Bank of India)	11437	8985	New Delhi
Bank of Baroda (With Merger of Dena Bank & Vijaya Bank)	8581	10318	Vadodara
Canara Bank (With Merger of Syndicate Bank)	10391	12829	Bengaluru
Union Bank of India (With Merger of Andhra Bank and Corporation Bank)	9500	13300	Mumbai
Bank of India	5825	5000	Mumbai
Indian Bank (With Merger of Allahabad Bank)	6000+	6104	Chennai
Central Bank of India	2876	4666	Mumbai
Indian Overseas Bank	2995	3400	Chennai
UCO Bank	2377	4000	Kolkata
Bank of Maharashtra	1860	1897	Pune
Punjab & Sindh Bank	1045	1554	New Delhi

Table 1: List of all Public Sector Banks in India (moneymint.com, n.d.)

List of Private Banks	Number of Branches	Number of ATMs	Headquarter
Axis Bank	4094	17315	Mumbai
Bandhan Bank	1000	485	Kolkata, West Bengal
Catholic Syrian Bank	426	290	Thrissur, Kerala
City Union Bank	600	1724	Thanjavur, Tamil Nadu
DCB Bank	323	4,99	Mumbai, Maharashtra
Dhanlaxmi Bank	269	3,46	Thrissur, Kerala
Federal Bank	1252	1598	Aluva, Kerala
HDFC Bank	4787	13514	Mumbai, Maharashtra
ICICI Bank	4882	15159	Mumbai, Maharashtra
IDBI Bank	1892	3693	Mumbai, Maharashtra
IDFC First Bank	301	216	Mumbai, Maharashtra
IndusInd Bank	1004	2662	Mumbai, Maharashtra
Jammu & Kashmir Bank	958	1322	Srinagar, Jammu, and Kashmir
Karnataka Bank	835	1503	Mangaluru, Kamataka
Karur Vysya Bank	668	1641	Karur, Tamil Nadu
Kotak Mahindra Bank	1369	2429	Mumbai, Maharashtra
Lakshmi Vilas Bank	570	1045	Chennai, Tamil Nadu
Nainital Bank	135	–	Nainital, Uttarakhand
RBL Bank	342	–	Mumbai, Maharashtra
South Indian Bank	852	1393	Thrissur, Kerala
Tamilnad Mercantile Bank Limited	509	1156	Thoothukudi, Tamil Nadu
Yes Bank	1050	1305	Mumbai, Maharashtra

Table 2: List of all Private Sector Banks (moneymint.com, n.d.)

In addition to reducing human error when filling out offline forms, we also asked if any application could eliminate wasted paper and time and reduce the hassle of banks. The response was positive and if they can find this kind of application, it can solve so many problems and can save resources.

4.2 Target Audience:

The target audience for online banking would be people who have bank accounts. Businesses may use it to set up their account and so they can easily take money out of their business. Working people may use it as they may not have time to go to the bank and take out money.

4. RESULTS AND CONCLUSION:

This research paper initially focused on the meaning of online or digital payment. Later focused on the different payment applications and their limitations with POCKET BANK's advantages over them.

The use of these apps with online payments has grown tremendously in just a few years. The number of users using these apps is increasing significantly every day. The wallet feature of these apps has attracted many users. We find that many people are adopting cashless payment methods because of their unique advantages: Save time, be easy to use, and various online payment apps offer different cashback offers and discounts to encourage people to use the digital payment mode. Consumers can also track all their spending with online payments.

The small survey data gives the approximate money spend on the paper forms daily which is 1 Crore Rs and yearly 365 Crores.

Creating awareness and promoting online banking can become a key solution. For online banking, there is need of simple and secure application like POCKET BANK which can change the current banking situation dramatically. Thus, banks will become free from paper and environment will free from wastage, there would be less rush during this pandemic period and hence these upgrades can provide better discretion to both existing and prospective Internet banking customers.

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