IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

ISO 3297:2007 Certified ⁜ Impact Factor 7.918 ⁜ Vol. 11, Issue 11, November 2022

DOI: 10.17148/IJARCCE.2022.111154

Payment Wallet With Fraud Detection

Prashant Surdas Mukke[1], Nihal B. Jiwane[2], Ashish B. Deharkar[3]

Student Computer Science & Engineering, Shri Sai College of Engineering and Technology, Bhadrawati, Maharashtra India[1]

Assistant Professor, Computer Science & Engineering, Shri Sai College of Engineering and technology, Bhadrawati, Maharashtra, India[2]

Assistant Professor, Computer Science & Engineering, Shri Sai College of Engineering and technology, Bhadrawati, Maharashtra, India[3]

Abstract: Payment wallet has many significant features like anytime transfers, mobile transfers, and secure and convenient transfer of money. It can also be considered a bank for those who do not have an approach to banks and do the banking activity like sending and receiving money. Digital wallets are gaining momentum in the Indian market due to increasing technology penetration and acceptance of new developments by customers. E-Wallet payments can be made anywhere including receiving money, storing, and sending. The situation everything actually careful banks then telecom companies toward proposal investment facilities to their subscribers. The use of e-wallets helps in moving away from a cash base economy. In the process, all the transactions get accounted for in the economy, which has the effect of reducing the size of the parallel economy It is an online platform that lets an operator save money popularly, fair similar to a set account. Operator requirements toward typing a description with a portable file provider. This can be used in many different sectors of businesses, Shops, and Malls. It will also capitalize on the scope of India's education market segments.

Keywords: E-Wallet, Payment, Transaction, Fraud Detection.

I. INTRODUCTION

E-Commerce is the essence of doing commercial transactions in our 21st generation. E-Commerce means electronic commerce in which money transactions are conducted electronically through the Internet. The next generation of E-Commerce is M-Commerce. Kevin Duffey first coined the term "M-Commerce" in 1997. According to him, m-commerce is defined as the delivery of eCommerce capabilities directly into the consumer's hand, anywhere via wireless technology. In popular humble words, responsible communications finished wireless hand-held plans by way of moveable headsets. The thought of movable quantity remains regularly existence known and then accepted crossways the sphere in leading-edge changed conducts. The incomplete fir trees clearly definite by way of the 'Mobile Sum Organization' remained marched means backbone popular the period 2000. In some developing countries, the mobile payment mechanism is being used as a means of extending financial services to those people who are known as underbanked or unbanked and it is estimated that they constitute close to 50% of the global adult population, as per the reports from Financial Access of 2009 - 'Half the World is Unbanked'. They are mostly used for micropayments.

II. HISTORY

Banking History: The history of banking began with the prototype banks which were the merchants of the world, who made grain loans to farmers and traders who carried goods between cities. This was around 2000 BC all over the country. Advanced, and more popular in early Greece than through the Classical Empire, creditors founded popular temples and then completed credits, through relaxed credits then the execution of the change of money. Archaeology after this dated popular early China and India to displays signs of money-lending action. During the 20th century, developments in telecommunications and computing caused major changes to banks & operations and let banks dramatically increase in size and geographic spread E-Banking: From banking to e-banking, the initiative was taken while financial institutions took steps to implement e-banking services in the mid-1990s, many consumers were hesitant to conduct monetary transactions over the web. It took the widespread adoption of electronic commerce, based on trailblazing companies such as America Online, Amazon.com, and eBay, to make the idea of paying for items online widespread. By 2000, a maximum of U.S. banks offered e-banking.

International Journal of Advanced Research in Computer and Communication Engineering
ISO 3297:2007 Certified ⁜ Impact Factor 7.918 ⁜ Vol. 11, Issue 11, November 2022
DOI: 10.17148/IJARCCE.2022.111154

Customer use grow slowly and it took ten years for banking to reach the e-banking platform. However, an important social change acquired residence next to the Y2K start over. In 2001, Bank of America became the first bank to top online banking customers, more than its customer base. Working clients are verified as additional reliable than money-making even customers. Working finance customers whom usage on design pay and then e-bill services remain better off with their sets which interpret hooked on extended relationships.

III. OBJECTIVE

Goals:

1. To reduce the costs and risks of handling cash.
2. To increase the ease of conducting transactions.
3. To promote secure and fraud-free transactions.

Objectives:

1. Controlling risk in the financial system.
2. Promoting the efficiency of the payments system.
3. Promoting competition in the market for payment services, consistent.
4. with the overall stability of the financial system.
5. Promoting fraud-free transactions and tracing the location of a fraudster.

IV. SYSTEM DESIGN

Mobile Money Transfer: Mobile Money Transfer (MMT) services can be defined as a financial service provided by a Mobile Network Operator (MNO) that enables the transfer of funds (money) between service subscribers through the use of mobile channels. In the MMT service, mobile subscribers can add electronic money called money to their virtual mobile account (m Wallet) and store it for later use, transfer it to other mobile subscribers, or purchase goods via mobile phone. The receiver can inexpensively convert this credit back into cash through a retailer such as local corner shops to act as bank branches. Mobile money transfer service allows users to send cash using SMS technology thereby avoiding inconvenient and costly transfer methods such as physical travel, mail, or traditional wire transfer services like Western Union and Post a pay which is often done in banks. For example, payments for services like electricity and water where people need to travel long distances and may end up meeting huge queues at the bank. To deposit funds into a mobile money account, consumers go to participating local shops (retailers) and hand over physical money.

There is no charge to a customer for depositing funds into his/her account, but a sliding tariff is levied on withdrawals from the account. A subscriber who sends money is charged a flat fee if sending to another registered user and a sliding fee if sending to a mobile subscriber that is not registered with the same MMT service provider shows a person-to-person fund transfer using MMT service.

Diagram 1: P2P transfer using MMT

Mobile Money Business Model:

A. Mobile Network Operator

Mobile Network Operator (MNO) emits money (m) in partnership with a private bank and they regularly produce compliance reports to the Central Bank which is responsible for the country's monetary policy [Rie+13]. The role of MNO in the mobile money ecosystem is very critical as they play the leadership role by drawing the different stakeholders in the ecosystem together. MNO provides infrastructure such as wireless communication, a backend server, and a mobile application for the operation of the ecosystem. In addition, they bring their huge existing distribution channels and subscribers into the ecosystem. Wherever there is mobile coverage, there is an agent of a distributor that

International Journal of Advanced Research in Computer and Communication Engineering
ISO 3297:2007 Certified ⁜ Impact Factor 7.918 ⁜ Vol. 11, Issue 11, November 2022
DOI: 10.17148/IJARCCE.2022.111154

sells prepaid credits. The physical delivery of the managers springs MNO the aptitude to scope clients crossways very salary parts. This coupled with the ownership of the infrastructure gives MNO the ability to be the key player in the mobile money ecosystem. They too show the main characters' popular additional ecology growth and then exercise of directors' popular trade by customers. However, they lack experience in financial services, payment risk, and regulatory and legal governance of the payment system.

B. Financial Institutions (Partner Banks)

The financial institution provides a banking license and helps to store the mobile money customers keep in their m-Wallet. They also bring their vast experience and customer trust in dealing with e-Money while acting as the intermediary between the MNOs and agents in acquiring the e-Value.

The branch offices of the banks act as aggregation points for the merchants, distribution channels, and their agents in facilitating the flow of money in the mobile money ecosystem. The bank provides financial regulatory advice to the MNOs and also online banking integration to the m-commerce system of the MNOs to facilitate their operations.

C. Distribution Channels (Agents)

The distribution channels (agents) are primarily the consumer-facing touchpoint and can often be seen as the "face" of mobile money offering [SCP16]. The distribution channels are non-bank entities such as MNOs retail shops, village corner stores, or a mix of both that handle customer registration, cash-in/cash-out services, and other transactions on behalf of the MNO.

Through their knowledge and understanding of the consumers, they help to educate, maintain liquidity, handle account opening procedures and report suspicious transactions in line with regulatory requirements. The agents earn commissions based on the amount of mobile money trading they undertake which are usually very small amounts per transaction. However, it is expected that the volume of transactions will add up to a good amount to sustain their retail business.

D. Service Providers (Merchant and Utilities)

The adoption of mobile money platforms as a means of receiving payment by service providers enables convenient and timely payments for both the merchant and customers. In Kenya and Ghana, for example, subscribers of popular pay-per-view TV services use mobile money (M-PESA and ZAP) for the payment of their subscription fees rather than queuing up to make such payments.

Also, the adoption of mobile money platforms can lead to an increased customer base of the mobile money ecosystem thereby acting as a catalyst in promoting the service.

E. Regulators

The function of regulators in mobile money is to provide an enabling environment, protect the stability of the financial system, and ensure the implementation of regulations and innovation facilitation. The growth of moveable cash scratches crossways deuce controlling forms popular in most nations, wire, then investment.

This has brought about competition and unclear functions between the two major operators. As a result, many countries have not yet developed mobile money regulations and policies. therefore, the need to clarify and understand the relationships between the actors within the mobile money ecosystem to ensure improved efficiency and clear regulatory policies. This also gives rise to a need for a converged regulation for both technology standards and policy which is slowly coming to the attention of regulators globally.

This proposed collaboration requires careful balancing with the national interest.

F. Customers

In the mobile money ecosystem, customers are the final recipient and it is therefore important that effective and efficient services are made available by all participating mobile service providers. The use of mobile money payment reduces the risk of carrying cash and increased access to payment, remittances, and other financial services for customers, particularly in developing markets.

IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

ISO 3297:2007 Certified ⁜ Impact Factor 7.918 ⁜ Vol. 11, Issue 11, November 2022

DOI: 10.17148/IJARCCE.2022.111154

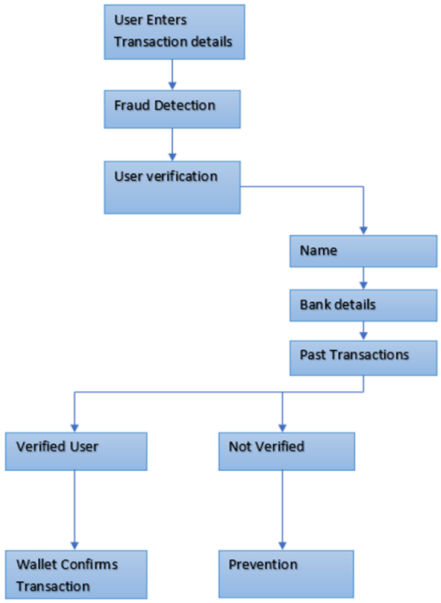

Diagram 2: System workflow

System Description: A payment wallet system with fraud detection is a rule-based system that promotes safe transactions. It has been developed for customers, e-commerce, and B2B to obstruct the losses resulting from fraud attacks. This wallet provides complete fraud detection and prevention solution for credit cards, ATM/Debit card, UPI, and merchants. This wallet has a scenario definition system that enables customers to check the receiver's details like name, location, etc. fraud detection engine monitors actual transactions in real-time on the user's device, detecting and preventing suspicious financial transactions before they reach the bank.

This wallet does not require installation and runs transparently on the web on any device. Wallet's fraud detection engine generates individual maps by processing the user's past and current transactions. A respective plan remains formed giving toward the operator's ingesting and then expenditure conduct.

V. CONCLUSION AND FUTURE WORK

1. The majority of respondents use E-wallets and few do not use them because of a lack of awareness about E-wallets.
2. Majority of users use E-wallets for Recharge and making Payments, transferring money, booking tickets, and online shopping.
3. Respondents would like to use E-wallets at Roadside vendors, Retail shopkeepers, traveling, and restaurants and to make Government payments.
4. The reason behind people still not using Ewallets is lack of awareness, lack of trust or security, lack of infrastructure to accept E-wallets, and slow and unstable internet.
5. Majority of people think mobile wallets can replace cash in India After the revolution in M-banking the further steps includes the new concept of mobile wallets.

Mobile wallet is a recent phenomenon. The situation acceptance determination takings period by way of the situation remains a custom modification knowledge aimed at operators by way of they remain traveling after money toward file knowledge. Even though it might be a relatively newer concept, its adoption is increasing along with its awareness of it. In the future, we may witness the exit of some players or the consolidation of some players from their segment. They will pose new challenges which have to be taken care of all the stakeholders have to address these challenges to ensure the growth in the customer base, the volume of transactions, and the profitability of a business.

A big amount of India's people are non-financially well-read they prepare not to consume admission toward official investment facilities. There are multiple problems faced by the industry which can be viewed as three dimensions.: business & operating models, consumer and market dynamics The investigation showed that LR and NN yielded the most elevated exactness, accuracy, and review of the calculations tried. SVM and DT experienced overfitting. We might want to utilize more information to lessen the fluctuation of results. Rather than utilizing 4,000 tunes, we desire to

International Journal of Advanced Research in Computer and Communication Engineering

ISO 3297:2007 Certified ⁜ Impact Factor 7.918 ⁜ Vol. 11, Issue 11, November 2022

DOI: 10.17148/IJARCCE.2022.111154

incorporate all Billboard Hot 100 hits taken from a more extended period, and a comparable number of nonhits from the MSD. Besides, we might want to investigate extra sound highlights, for example, span, which was excluded from this undertaking yet can anticipate a melodies Billboard achievement.

VI. REFERENCES

[1]https://www.google.co.in/search?q=paytm&oq=paytm&aqs=chrome..69i57j0l5.1677j0j8&sourceid=chrome&ie=UTF-8#

[2] AN EMPIRICAL STUDY ON CONSUMER's ADOPTION OF MOBILE WALLET WITH SPECIAL REFERENCE TO CHENNAI CITY DR. S. Manikandan*1, J. Mary Jaya Kodi 2

[3] A STUDY ON "ELECTRONIC PAYMENT SYSTEM" - "E-WALLET" G.UDHAYARAJ#1 and D.JOCIL*2

[4] A Study On Paytm Services In Promoting Cashless Economy After Demonetization In India And An Outline On Its Support Towards Making India Digital

[5] **Associate Professor, School of Management, Hindustan Institute of Technology and Science, Padur, Chennai India. – mrajeswari@hindustanuniv.ac.in

[6] Mohammad Auwal Kabir*, SitiZabedahSaidin, AidiAhmi

[7] School of Accountancy, Universiti Utara Malaysia

[8] STUDY OF CONSUMER PERCEPTION OF DIGITAL PAYMENT MODE SHAMSHER SINGH Banarsidas Chandiwala Institute of Professional Studies, Dwarka, New Delhi, India Tel: 9810543144; Email: shamsher_1965@redfiimail.com RAVISH RANA Delhi School of Economics, University of Delhi, Delhi,

[9] https://www.financialexpress.com/industry/technology/emergence-ofe-wallets-in-india-here-ishow-the-payments industry-is-growing-rapidly/451008/

[10] http://www.iamwire.com/2015/04/mobile-wallets-what-scope-india/114860

[11] https://www.sumhr.com/digital-walletsindia-list-online-payment-gateway