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Crossover to Crypto Currency Using E-RUPI

Jayeshkumar Narendra Pathak[1], Soudip Bhaduri[2]
[1]*Finance, Parul Institute of Management and Research*
[2]*Business Analytics, Parul Institute of Management and Research*

Abstract: ***Crypto currencies have recently gained a lot of attention from investors, central banks and governments, On August 2 2022, the Prime Minister, Shri Narendra Modi launched a digital payment solution e-RUPI, a cashless and contactless instrument for digital payments. He said that e-RUPI is a symbol of how India is progressing by connecting people's lives with technology. This paper Reviews and surveys popular way of Exploring Opportunities and the Impact on Business Specifically on Rural and Urban Retail Business World, to provide a technical overview of e-Rupi, outline open challenges, and review the Fundamental Questions like Digital Wallet Holder can have equal Anonymous transaction Benefit as Physical Currency.***
As we all are living in a 21st century known as a technological era. In this as per various observation researcher focused on holistically Awareness and Acceptance of the e-rupi.
Keywords: e-Rupi, Crypto Currency, e-Governance, Digital Wallet, e-Wallet

I. INTRODUCTION

The honourable Prime Minister of India Shri. Narendra Modi has launched digital initiatives from time to time. Over the last few years, a kind of digital revolution has happened in India. The citizens have become more aware of the digital modes of payments which have improved the standard of living. One of the purpose of this Research paper is to predict Impact the ***e-RUPI Digital Payment*** platform. This platform is an instrument through which its users can make digital payments. This platform is a cashless and contactless instrument that will be used for making digital payments. It is a **QR code or SMS string-based e-voucher** which will be delivered to the mobile of the users. The users will be able to redeem this voucher without any digital payment app, internet banking, or card. This digital payment platform has been developed by the national payments corporation of India on its UPI platform. The collaborating partners are the Department of Financial Services, the Ministry of health and family welfare, and the national health authority. This initiative will connect the sponsor of services with the beneficiaries and service providers. The connection will hold in a digital manner without any kind of physical interface.

e-RUPI is a person and purpose-specific cashless e-voucher designed to guarantee that the stored money value reaches its intended beneficiary and can only be used for the specific benefit or purpose for which it was intended. The idea is to create a minimal logistics, leak-proof delivery mechanism for a wide range of government Direct Benefit Transfer (DBT) programs across the country. The digital e-voucher platform can also be used by organizations who wish to support welfare services through e-RUPI instead of cash.

II. CRYPTO CURRENCY

Crypto currency is a digital payment system that doesn't rely on banks to verify transactions. It's a peer-to-peer system that can enable anyone anywhere to send and receive payments. Instead of being physical money carried around and exchanged in the real world, crypto currency payments exist purely as digital entries to an online database describing specific transactions. When you transfer crypto currency funds, the transactions are recorded in a public ledger. Crypto currency is stored in digital wallets.

Crypto currency received its name because it uses encryption to verify transactions.This means advanced coding is involved in storing and transmitting crypto currency data between wallets and to public ledgers. The aim of encryption is to provide security and safety. The first crypto currency was Bitcoin, which was founded in 2009 and remains the best known today. Much of the interest in crypto currencies is to trade for profit, with speculatorsat times driving prices skyward.

A. Objectives of the Study

1) What are e-Rupi Features and Principles of e-Rupi?
2) Technical overview of e-Rupi,
3) Subsequent Challenges.
4) Review the Fundamental Questions.

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III. REVIEW OF LITERATURE

A. Paper 1:- Industry of the Future.

Bitcoin is a modern technology of transferring money through alphabets each having a bit code, though it's popular among the technologist and businessmen as it avoids the payment by cash.

B. Paper 2:- Challenges of using Bitcoin.

The attack from the cyber criminals haven't stopped with the introduction of the Bitcoin though it was thought to be but became opposite. An incident occurred in May 2014 in USA where the entire business got stopped because of the attack by cyber criminals.

C. Paper 3:- The denial of Possibility of Refund.

The use of Bitcoin if being done wrongly or being hacked from the account then there's no rule of refund. The example can be stated by an incident in US when at night on Friday one of the expert in the technology of using Bitcoin had been in gossips with his friends, then suddenly a message popped in his mobile that an amount of $2 billion had been transferred but the person didn't do the transaction, immediately he called up the manager of the bank but unfortunately they said once it's done then there's no rule of refund.

D. Paper 4:- The effect of crypto Currency in Today's Economy.

The ongoing drop of the crypto currency in the New York Stock Exchange and other exchanges in the developed countries has made the Ministry of Finance of India to think and redesign new rules and forms for investing in the market that will be driven by crypto currency in future because until now none is interested in the same despite CoinDCX, etc. Launched by the firm as people are in fear of losing money because the cases of Chit funds like Sahara, Sharada, Narada are not being out before the general public.

IV. RESEARCH METHOD

For this study researcher focused on analytical study, so we used the method of exploratory research for the same.

A. Hypotheses

H0: City dweller and villager will start using e-rupi for transition.
H1: Some People will not be fully aware of advantages of using e-Rupi
H3: Local Money Transfer Agencies may disappear due to e-Rupi

B. Sample

The sample is collected both from urban and rural areas of Vadodara, Gujarat but our main focus was on the rural areas of Vadodara as our economic structure is based on agriculture and we use modern day technology to enhance the same.

V. ANALYSES OF THE STUDY

The purpose of this study is to offer a review of Launching of Digital Currency by Government of India, How This Initiative transforming the meaning and the orientation of the Currency. Rapid and profound digital change has deeply affected Currency Transaction Globally. Infect our country has unique landscape of economy and challenges, This is the main reason which focused by researcher in this study. Researcher thought that this is real challenge for City, Urban and Rural Business owner to take competitive advantage of e-Rupi. Researcher would like to focus four findings of measurable and policy relevant indicators forecast which might reflect on Retail Business, Government Benefits, Threats and direct control on corruption. It is focused that findings for this early review frequently differ for various level and the body of research on the subject of suggest to 'fast growing economic stage of India'.

VI. FINDINGS WITH REMONDATIONS OF THE STUDY

A. e-Rupi Features and Principles.

National Payments Corporation of India (NPCI) in association with Department of Financial Services (DFS), National Health Authority (NHA), Ministry of Health and Family Welfare (MoHFW), and partner banks, has launched an innovative digital solution – 'e-RUPI'. e-RUPI is a person and purpose-specific cashless e-voucher designed to guarantee that the stored money value reaches its intended beneficiary and can only be used for the specific benefit or purpose for which it was intended.

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The idea is to create a minimal logistics, leak-proof delivery mechanism for a wide range of government Direct Benefit Transfer (DBT) programs across the country. The digital e-voucher platform can also be used by organizations who wish to support welfare services through e-RUPI instead of cash.

The users of this seamless one-time payment mechanism will be able to redeem the voucher without a card, digital payments app or internet banking access, at the merchants accepting e-RUPI. The e-RUPI would be shared with the beneficiaries for a specific purpose or activity by organizations or Government via SMS or QR code.

This contactless e-RUPI is easy, safe and secure as it keeps the details of the beneficiaries completely confidential. The entire transaction process through this voucher is relatively faster and at the same time reliable, as the required amount is already stored in the voucher.

This can be a huge opportunity for Entrepreneurial opportunity for the mission of 'Atmanirbhar Bharat' by our Honourable Prime Minister.

1) Features

a) e-RUPI voucher is an end-to-end digital solution to sponsor benefits and services to beneficiaries. e-RUPI can be issued by the sponsor with the support of Issuer banks.

b) e-RUPI is a one-time and multiple time use contactless, cashless voucher-based mode of payment that helps users redeem the voucher without card, digital payments app, or internet banking access.

c) e-RUPI is a person-specific and even purpose-specific digital voucher, which means these vouchers can be used by person (to whom the voucher is been given) for specific purpose.

d) Beneficiary receives e-RUPI voucher on the mobile phone in the form of SMS/QRcode.

e) Beneficiary can redeem the e-RUPI voucher at any merchant centre which is enabled for e-RUPI acceptance.

2) Principles

a) e-RUPI voucher can be created or revoked on the request of the Sponsor(Government/Private Entities)

b) The cap on the amount for e-RUPI vouchers is INR 1,00,000/- per voucher for Government schemes only. For Private entities, the limit of e-RUPI voucher is at INR 10,000/- per voucher.

c) The e-RUPI voucher is allowed to redeem for P2M purchases only. It can be accepted on all UPI merchant acceptance points, or at specific locations as predesigned scheme, while issuance of such instrument.

d) Every voucher is "digitally validated" on the redemption. The voucher issuance format will be digital only for e.g. QR code, SMS string etc The Issuer Bank/Payer PSP may also send the communication for issuance of the e-RUPI voucher to the end beneficiary via another mode basis on the Sponsor request (digital mode only).

e) The validity of the e-RUPI voucher shall be defined by the Issuer Bank/Payer PSP as per the use case (Max validity per voucher – 1 year).

B. Technical Overview of e-Rupi

October 2022

Sr. No.	Use Case Name	Voucher Created Volumne	Voucher Redeemed Volume
1	National Health Authority: AB-PMJAY	6,777	584
2	Odisha Government: Seed Distribution	226	8
3	Madhya Pradesh Government: Agriculture Equipment Distribution	63	55
4	Madhya Pradesh Government: Cycle Distribution	521	12
Total		7,587	659

*Uptime: Please refer UPI uptime data: https://www.npci.org.in/what-we-do/upi/uptime-upi-month-wise

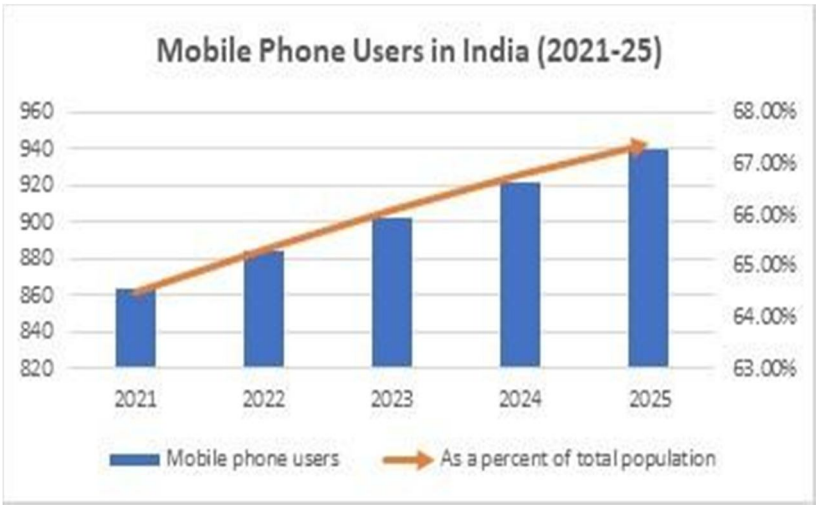
November 2022

Sr. No.	Use Case Name	Voucher Created Volumne	Voucher Redeemed Volume
1	National Health Authority: AB-PMJAY	25,057	3,164
2	Madhya Pradesh Government: Agriculture Equipment Distribution	70	45
3	Madhya Pradesh Government: Cycle Distribution	26	6
Total		25,153	3,215

*Uptime: Please refer UPI uptime data: https://www.npci.org.in/what-we-do/upi/uptime-upi-month-wise

C. Subsequent Challenges

There are around 55,619 villages in the country that do not have mobile phone coverage. And according to an Insider News report in 2021, only around 64.5% of the population have a mobile phone. It is expected that the number will reach 939.3 million by 2025 which signifies 67.4% of the total population.



D. Review the Fundamental Questions

1) Who can issue e-RUPI?

e-RUPI can be issued only by banks authorized by RBI to issue Prepaid Payment Instruments (PPI) and who are participating as Payment Service Providers (PSP) in the UPI ecosystem (referred hereunder as the "Issuer").

2) What is the maximum amount for voucher creation?

Maximum limit of each e-RUPI shall not exceed INR 10,000 or as defined by regulator

3) Can e-RUPI be redeemed for cash / cash back?

e-RUPI shall be permitted to be redeemed only for the purchase of goods and services from designated merchant bearing valid Merchant Category Code (**MCC**), as may be defined by the Issuer at the time of issuance of e-RUPI. e-RUPI shall not be permitted for cash out or cash back on redemption.

4) How many vouchers can be issued for 1 user?

Up to 10 e-RUPI vouchers can be issued for one programme on single mobile number / per unique beneficiary; the requirement shall be configurable as per the Scheme requirements

5) What are the steps to be followed by e-RUPI Beneficiary for redemption of e-RUPI?

a) Following are the steps to be followed by e-RUPI Beneficiary for redemption of an e RUPI. Display e-RUPI (either in the form of QR or SMS) to the merchant for validation.

b) Once the e-RUPI is validated, e-RUPI beneficiary will receive verification code on his mobile number to be entered on merchant device for verification.

c) Once e-RUPI Beneficiary is verified, e-RUPI will be redeemed.

6) Is there any charge applicable on e-RUPI Beneficiary for using e-RUPI for payment?

No, there is no charge applicable on e-RUPI Beneficiary for using e –RUPI.

7) Finding of Rural and Urban Business Owners Acceptance of e-RUPI ?

40 % of Rural Retailers and 70% of Urban Retailers are Aware of Reliability e-Rupi But not fully aware of Process and The Fact.
60% Rural Retailers are Using Unified Payments Interface (UPI). Aware of e-wallet.
Google Pay compared to other service provider is Preferred, also UPI Transaction Process has Limitation Like

a) Meek of Bank Account

b) All Transaction Recorded

c) No Advantage of Fiat Money

The major advantages of using e-RUPI are as follows:

- It gives a secure system of flow of money or cash without carrying the same so the theft and fear also become less in the society.
- The businessmen can do their business in smooth and hassle free way.
- The ecosystem remains green and healthy as we don't have to cut trees for printing notes and dig mines for coins.
- The use of e- RUPI is helping students to pay their fees for colleges and universities without carrying cash and getting receipt at the same time without wasting time in the queue for payment at the cash counters.
- The transactions can be done 24×7 across the globe.
- The case of chit funds like Sahara, Sharada, Narda can be detected and handled legally.

The major disadvantages of using e-RUPI are as follows:-

- The use of digital currency has increased cyber crimes throughout the world.
- The recent incident of hacking the website of ICMR and AIIMS to get the details of the patients to make clones of them are really threats to the society.
- The use of digital currency can make many people from different sections of society jobless so it can increase the threats of crimes in the society at large.

VII. CONCLUSION

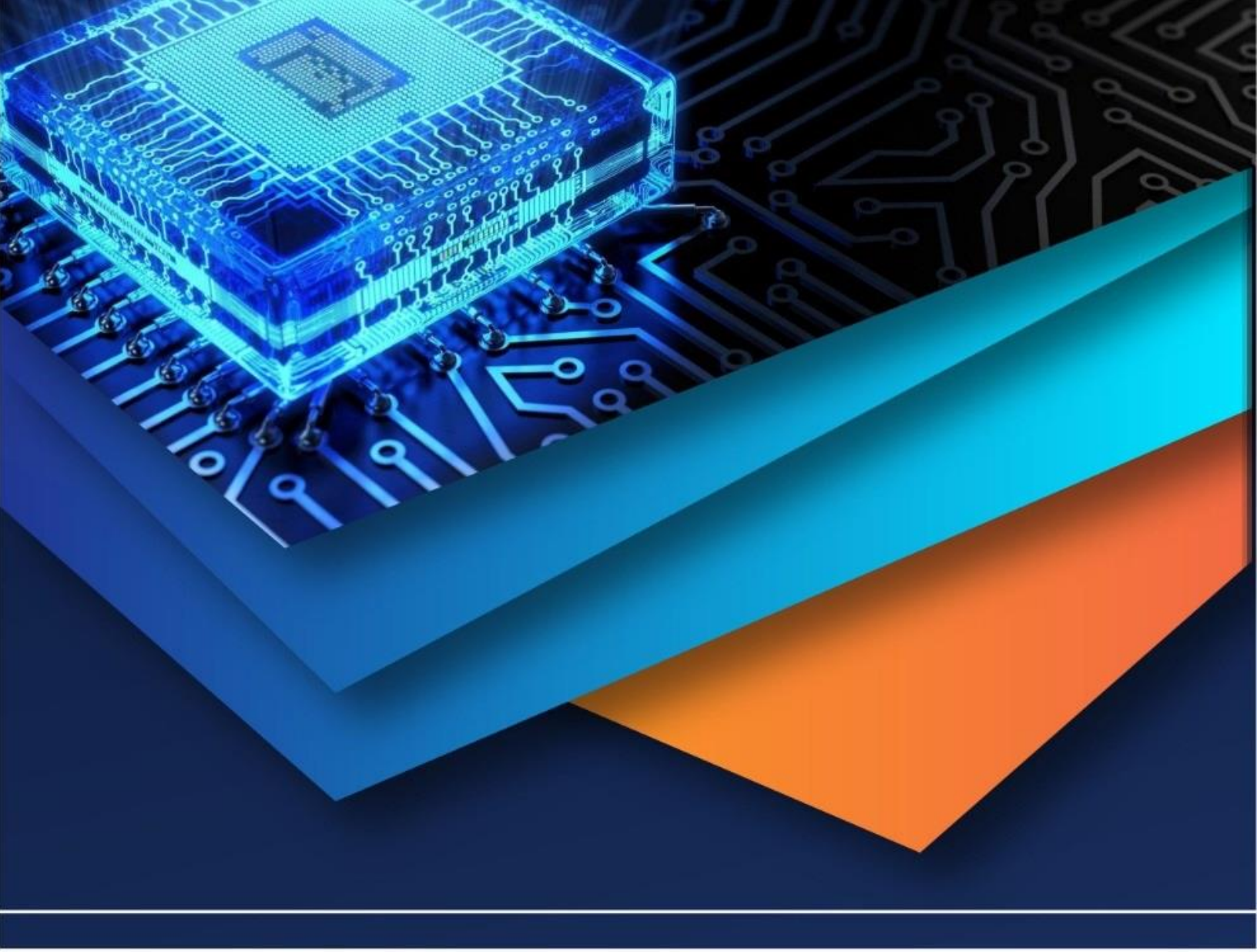
The sum up of this Study, The new Initiative of Digital Currency and Digital Wallet with two different name Based on the usage and functions performed by the Central Bank Digital Currency (CBDC), and considering the different levels of accessibility, it can broadly be of two types -- general purpose (retail) (CBDC-R) and wholesale (CBDC-W).
CBDC is more anonymous than traditional digital transactions. In CBDC, the core banking will have a one-time debit for currency purchase, but all subsequent transactions will move from wallet to wallet. This is most reason of acceptance widely in Indian Market.
Also e-Wallet is safe for routine purchase compared to physical Currency.
Awareness of launching e-Rupi is there at all Level Business people Due to efforts made by Government, National Payments Corporation of India (NPCI), Also Various Media like Television News Program, Social Media Platform etc.
Lastly, we can conclude that e-RUPI will enhance the job under Atmanirbhar Bharat by the Honourable Prime Minister by providing new ways of entrepreneurial opportunities in the society at large but with higher level of cyber and information security because though technology has boon but comes with curse too.

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