

e-RUPI: INDIA'S NEW WELFARE-FOCUSED DIGITAL PAYMENT SYSTEM – A REVIEW

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ABSTRACT

e-RUPI, the digital payment solution, has been launched by Prime Minister Narendra Modi. The e-voucher can be used by the governments and private entities to take the specific benefits to the needy. The mechanism will promote transparent and leakage-free targeted delivery system to make sure that appropriate relief reaches the needy. The e-RUPI voucher introduces transparent technological advancement. The transaction through e-Rupi is faster and reliable as the required amount is already stored in the voucher. The big benefit of e-RUPI is that money can be used only for the purpose for which it is sent. It is considered to be a symbol of how India is progressing by connecting people's lives with technology. The digital voucher payment system seems to be a method to spot potential gaps in the existing welfare payments structure and fix them. It is therefore, there is a need to review the newly introduced e-RUPI voucher and the main objective of the paper is to examine e-vouchers and review all about the e-RUPI.

Key words: e-RUPI, e-voucher, transparent, faster, reliable, payment.

INTRODUCTION

e-RUPI digital payment system, developed by the National Payments Corporation of India (NPCI), is launched by Shri. Narendra Modi, The Prime Minister of India on Monday 2nd August, 2021, through video conferencing. The e-RUPI digital a new mode of cashless and contactless digital payment to ensure seamless transfer of benefits to the citizens in a “leak-proof” manner. It is a person and purpose specific cashless digital payment solution. The Prime Minister says that the launching of the e-RUPI is the move that will play a huge role in making Direct Benefit Transfer (DBT) more effective in digital transactions in the country and give a new dimension to digital governance. The digital payment system is an important step in ensuring government benefits and services reach their intended beneficiaries in a timely manner. The highlights of the launching of e-RUPI are:

Table-1: NPCI e-RUPI Highlights

Name of Program	e-RUPI (Prepaid E-Voucher)
Developed by	National Payment Corporation of India
Launch By	PM Narendra Modi
Launch Date	02 August 2021
Launch Timing	4.30 PM
Type of Program	Digital Payment
Benefits	Cashless and Contact lest instrument for Digital payment
Work-based on	QR Code, Redeem Voucher

METHODOLOGY

Objectives:

The e-RUPI system is a maiden and novel approach towards the digital payment system that promotes cashless transactions.

This paper attempts:

- To examine the e-vouchers and their popularity.
- To study the role of e-vouchers in social service organisations perspective.
- To review all about the e-RUPI and other details of the digital e-RUPI payment system through e-Vouchers.

Limitation and data:

The study is limited to the review of electronic vouchers and novel e-RUPI only. The review is based on the material and information available on line and used as secondary data.

REVIEW AND ANALYSIS

E-Voucher

An e-Voucher is an electronic voucher system which enables merchants to easily generate, design and issue digital coupons or e-vouchers and is usually delivered to the customer by e-mail or SMS and can be printed and redeemed in store, or redeemed online using a PIN code. With the e-Vouchers are the popular choices for merchants as they are delivered in real-time and can be redeemed instantly in many cases and they can conveniently set up promotional campaigns to reach more customers and increase sales. Everybody loves discounts and deals. E-Voucher helps to boost sales and grow profits by encouraging customers to spend more with the use of voucher codes. It can build customers loyalty and loyal customers. With e-Voucher, shoppers can be offered with frequent discounts with special deals and discounts to boost customer satisfaction. The e-Vouchers are also one of the most common tools used to draw attention among consumers and to raise brand awareness and put a smile on beneficiary's face by giving him an e-Voucher. The following figure-1 illustrates how e-vouchers work in general perspective.

Working of e-Vouchers:

Figure -1: Illustration of how electronic vouchers work



Development of e-vouchers should have a flexible and easy-to-use system that offers multiple design themes and customisable options for the e-voucher campaign. They should allow to update the design for seasonal offerings and promotional events. The consumer can then add further personalisation to the e-gift, such as including personal messages and uploading photos from their devices.

E-vouchers have become an increasingly popular choice as they offer the recipient instant access to discounts or promotions whilst on the move. Recent technological

advancements in 4G and 5G mobile networks, as well as more accessible public Wi-Fi have boosted the use of e-vouchers. They are popular choice because they:

Increase Sales: Customers who redeem e-vouchers often spend more than the value of the voucher itself. Many studies show that most customers who redeem a gift voucher or e-voucher in store or online spend an additional of about 40 per cent.

Instant Rewards: At the push of a button, e-vouchers can be sent to customers and they receive them straight to their inbox or mobile device with the specific time limit. In most cases, e-vouchers are instantly redeemed as the rewards. The e-vouchers can also be sent to multiple customers simultaneously.

Eco Friendly: The e-vouchers offer an environmentally friendly solution to all consumers as there is zero usage of paper or plastic, and hence, zero wastage.

Easily Customisable: The e-vouchers can be created in line with the branding guidelines or requirements and customised to complement specific marketing campaigns or seasonal promotions.

Low cost: The e-vouchers are low-cost alternative to traditional plastic gift cards or paper vouchers with no physical materials or postage required.

e-Vouchers in Social Service Perspective:

Electronic vouchers are a type of cash-based response that allows beneficiaries of social assistance to receive relief for a variety of goods and services. This is done through approved vendors operating in the local markets where beneficiaries are located. The donor organisation pays a specified financial service provider, which then generates the electronic vouchers in form of digital money and handles the funds on behalf of the donor organisation. e-Vouchers allow beneficiaries greater choice and control and are cheaper to implement. They offer several benefits to recipients, social service organizations and the larger ecosystem.

e-vouchers can also help widen the reach of both social service organizations through nominated agents or local administrators, who can map and collect contacts such as mobile phone details of beneficiaries. The collected data can help create a database of beneficiaries for relief distribution. Agents, volunteers and local administrators identify and register beneficiaries from remote areas and certain communities, who often move from one place to another. Some other benefits of e-vouchers are listed below:

Cost reduction: e-Vouchers are cheaper to use due to the lower cost of distribution logistics. The savings in the channel can be repurposed and reallocated more resources to the beneficiaries.

Development of local economy: e-Vouchers have a multiplier effect on the local economy. Beneficiaries redeem vouchers at designated local shops to get the essentials. This increases the circulation of cash, which results in the economic growth of the local area.

Transparency: The system ensures the vouchers are reached the intended beneficiaries and funds are utilised appropriately. e-Vouchers can help enhance transparency and accountability, and reduce chances of misappropriation before the funds reach the target beneficiaries.

Monitoring of disbursements: Data base of beneficiaries is created to administer e-Vouchers. The databases have multiple use-cases, such as determining needs and requirements of beneficiaries of different areas or regions.

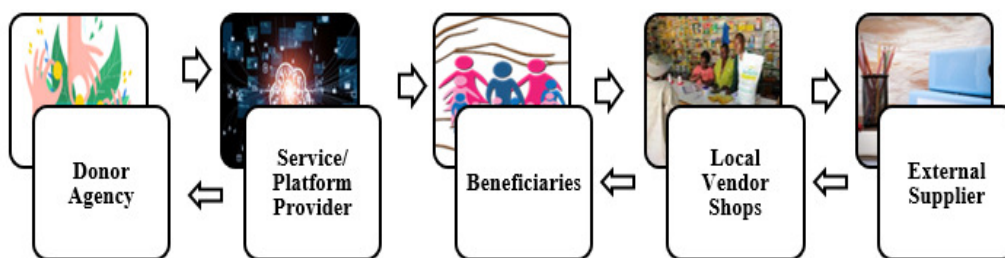
Restricted use: e-Vouchers have ability to restrict the use of e-vouchers to desired purposes. By locking the redemption options of e-vouchers to specific vendors, it can be ensured that the beneficiaries utilize the disbursed funds meaningfully.

Others: Enhanced reach, accountability, robust monitoring, etc., are cardinal benefits of e-Vouchers.

Implementation of e-voucher system:

The implementation of an e-voucher system requires various players within the ecosystem. It involves coordination among stakeholders, the donors, the platform or service provider, local vendors, external suppliers, and beneficiaries. The following figure illustrates how e-vouchers work in the social service spectrum.

Figure 2: Illustration of how e-Vouchers work in social service organizations perspective



Donor Agency:

Donor agencies such as social service organizations:

- Collect beneficiary details and create data base to use as criteria for implementation of programs.
- Make bulk payments to the payment service providers.

- Share the e-voucher with the beneficiaries using an SMS to the mobile phone number nominated by the beneficiary; the message also provides details on how and where the beneficiaries may redeem the voucher.
- Provide funds for social welfare benefit transfers.

Service platform provider:

The payment service providers

- Generate e-vouchers and issue them to donor agencies to distribute them to the beneficiaries.
- Issue an Unstructured Supplementary Service Data (USSD) code for the beneficiaries, beneficiaries dial and follow the prompts on the USSD platform to pay for the specified goods at a merchant outlet.

Beneficiaries:

- The beneficiaries redeem the e-vouchers in exchange for goods or services predefined by the donor agency.

Local vendor shops:

The local vendors:

- Receive electronic value as a transfer of float to their e-money wallet.
- Use the electronic float to replenish their supplies by paying external suppliers.

External suppliers:

The external suppliers supply materials on receipt of payment.

e-Vouchers in emergencies of Covid:

Digital technologies have been transforming the innovative way that we are able to respond to the emergencies of Covid. An example of such an innovation is 'Sure Pay'. The Sure Pay, launched by M-Pesa in Kenya, is a service that has facilitated social service organizations to distribute relief to specified recipients using electronic vouchers maintaining social and physical distance.

The e-vouchers extend several benefits, such as low cost, development of local economy, enhanced reach, better transparency and accountability, robust monitoring, etc. Social service organizations, governments, and the private sector have a strong case to use e-vouchers for disbursements. The conditional use of funds allows for their traceability and transparency. Thus, the governments of various countries are coming forward to use the e-vouchers to provide supports to beneficiaries. The Government of India has introduced e-RUPI as a transparent and leak-proof cashless medium of payment to the delivery of welfare services in India.

e-RUPI

The e-RUPI platform is a cashless and contactless digital payment medium, which will be sent to mobile phones of beneficiaries in form of an SMS-string or a QR code developed by the National Payments Corporation of India (NPCI), which oversees the digital payments ecosystem in India, in collaboration with the Department of Financial Services, Ministry of Health & Family Welfare and National Health Authority. It can be used as an e-voucher, the contact-less payment, that directly reaches to the beneficiary.

Definition:

The e-RUPI is a prepaid e-voucher powered by the Unified Payments Interface (UPI) system that powers multiple bank accounts into a single mobile application of any participating bank. The e-voucher works by authentication through QR-code or SMS.

The e-RUPI is essentially means that instead of transferring cash in beneficiary's bank account, the Government issues an electronic voucher to the mobile of the recipient after verifying their identity. They can be passed on directly to citizens through online banking, payment apps, a bank account or even who don't have access to credit or debit cards. The citizens can thus redeem the voucher and receive the benefit at the point of delivery such as PDS shops, hospitals, schools, fertilisers and pesticides shops, etc., through a simple one-time payment mechanism i.e., OTP. The whole process is, therefore, cashless and contactless. The payment can only be processed after the service has been provided to the beneficiary. As it is a prepaid voucher, the beneficiary can have access to the money or other benefits whenever required.

The system has been developed by the National Payments Corporation of India (NPCI) on its UPI platform. As of now, three categories of entities have been approved to issue these vouchers by the RBI - banks, payment service providers and entities that hold licenses for prepaid instruments. There is only a selected list of banks currently which are live with the e-RUPI. So far, banks that are associated with e-Rupi are Axis Bank, Bank of Baroda, Canara Bank, HDFC Bank, ICICI Bank, Indusind Bank, Indian Bank, Kotak Bank, Punjab National Bank, State Bank of India and Union Bank of India besides the fintech companies, the acquiring Apps like Bharat Pe, BHIM Baroda Merchant Pay, Pine Labs, PNB Merchant Pay and YoNo SBI Merchant Pay, etc.

e-RUPI characteristics:**Transparent and leak-proof:**

The e-RUPI is hailed by one and all as an instrument that will bring transparent and "leak-proof" character to the delivery of welfare services in India.

Unbanked:

It enables the unbanked to receive the benefits of Government Schemes.

Private sector:

Apart from the Government, the private sector is also poised to use e-RUPI as part of its employee's welfare and corporate social responsibility (CSR) programmes.

Links:

The e-RUPI is the digital payment solution that links the sponsors of services with the beneficiaries and service providers with minimum contact and physical interface.

Cost & Benefit:

One of the top selling points of e-RUPI is its prepaid nature which means the service provider will receive timely payment without the involvement of an intermediary.

The e-RUPI is to enhance cost-effective reach for beneficiaries at the last mile. The costs are cut in the delivery chain because of the fewer intermediaries.

The e-RUPI helps to widen the cost-effective reach of service providers like government, private or non-profit organisations, meaning better governance, accountability and transparency.

The e-RUPI, the digitisation of the delivery process, enhances real-time data-supported monitoring of disbursements while reducing administrative costs at the same time.

The e-RUPI ensures equitable access to services, reduce barriers in the process and improve the fulfilment of targeted benefits since they can not be misused by the beneficiary for other purposes unlike cash handouts.

The e-RUPI can be used to push targeted retail sales and increase consumer spending in the economy upscaling e-commerce.

DBT and JAM

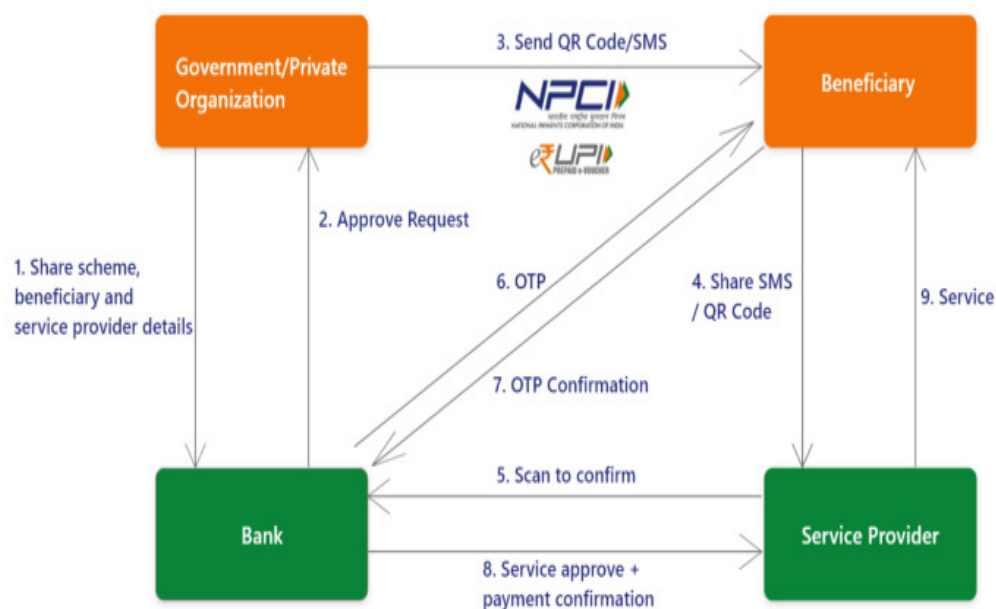
During the lockdown, Direct Benefit Transfer (DBT) with the trinity of Jan Dhan, Aadhaar and Mobile (JAM) has played a significant role in transfer of money into the accounts of crores of beneficiaries with a click of button. There are about 300 centrally sponsored schemes are on board on the DBT platform and about Rs 17.5 lakh crore has been transferred directly in the accounts of beneficiaries so far. About 90 crore citizens in some way or the other are getting benefits like LPG subsidy transfer, pension, PM KISAN Yojana and scholarship through the DBT platform. The Government has transferred Rs 1.35 lakh crore so far since the launch of PM Kisan Samman Nidhi (PM-KISAN) Yojana while Rs 85,000 crore was transferred directly to farmers against wheat procurement and more than 23 lakh street vendors have been helped in small and big cities of the country under SVANidhi

Yojana, and about Rs 2,300 crore has been given to beneficiaries during the present Corona period. It is reported that the use of technology to deliver the social security schemes directly to bank accounts of beneficiaries has helped the government save Rs 1.78 lakh crore so far by plugging pilferages and weeding out fake beneficiaries.

Working of e-RUPI

The e-RUPI will act as a prepaid voucher that can be redeemed as payment to a service provider, eliminating the need for a card, digital payments app or internet banking access. It will connect the sponsors of service providers with beneficiaries and service providers digitally. It assures the timely payments without the involvement of any intermediary. The working of e-RUPI is illustrated in the following figure-3.

Figure -3: Illustration of how e-RUPI works



Success stories:

India:

Targeted delivery of benefits has emerged as a priority of national governments, particularly during this pandemic.

LTC cash voucher scheme in Assam in India:

The LTC cash voucher scheme introduced in February 2021, the home-based care voucher system to improve Accredited Social Health Activist (ASHA) care in Assam, or the ongoing plans to devise E-vaccine vouchers for the economically weaker sections. The proactiveness of Central and State governments in supporting electronic voucher benefits has been quite promising.

Around the world:

In fact, around the world, e-vouchers have been implemented by both the public and the private agencies in different forms and across different sectors like housing, service, employment, food, sports etc. Education vouchers, in particular, have become increasingly necessary and popular benefit instruments in the EU and the USA, by virtue of their universal entitlement nature. The e-Vouchers like e-Sodexo, food and education vouchers in the USA, school vouchers in Colombia, Chile, Sweden, Hongkong and more countries are popular.

Last year, in 2020, the Municipality of Beijing announced that it would issue e-vouchers to boost its post-pandemic consumer market economy. Nigeria has also embarked on an innovative mobile phone-based fertiliser subsidy programme. Zambia has come up with a novel e-voucher system for its farmers which are linked to a beneficiary's national registration card number similar to Aadhaar card in India.

In one of the more striking success stories, the change from in-kind food transfers to e-vouchers, Buy Now Pay Later (BNPL) scheme in Indonesia was shown to reduce poverty by almost 20 per cent among the poorest households.

In the USA, however, despite the popularity of school vouchers and food stamps, state-issued vouchers for cheap food to those with low income, account-linked transfer of benefits has seen significant growth lately, more so during the present Covid pandemic when the government-issued stimulus cheques gained wide prominence.

The Wall Street Journal pointed out that e-vouchers and coupons are better for stimulus delivery than one-time cash distribution.

Perhaps the implementation of e-RUPI in India can offer more conclusive data on the merits and downsides of e-voucher systems. Such a large-scale exercise over a billion plus population is expected to demonstrate vulnerabilities and mitigate gaps, if any, in the digital payment networks of the country.

e-RUPI tie up:

To begin with, the NPCI has tied up with more than 1,600 hospitals where e-RUPI can be redeemed. Experts say that in the days to come the user base of e-RUPI is expected to widen, with even private sector using it to deliver employee benefits and MSMEs adopting it for Business to Business (B2B) transactions.

As per the official statement, the digital payment service can be used to ensure a leak-proof delivery of welfare services. It can also be used to deliver services under schemes meant for providing drugs and nutritional support under Mother and Child welfare schemes,

TB eradication programmes, drugs and diagnostics under schemes like Ayushman Bharat, Pradhan Mantri Jan Arogya Yojana, fertiliser subsidies and so on.

As for the private sector is concerned, the government has suggested that the sector can leverage these digital vouchers as a part of its employee welfare and corporate social responsibility programs.

Consumer centered e-RUPI:

The e-RUPI does not require the beneficiary to have a bank account, a major distinguishing feature as compared to other digital payment forms. It ensures an easy, contactless two-step redemption process that does not require sharing of personal details either. Another advantage is that e-RUPI is operable on basic phones also, and hence it can be used by persons who do not own smart-phones or in places that lack internet connection.

Benefits of using e-RUPI

Users:

According to the NPCI website, it is beneficial for corporates as it is an end-to-end digital transaction that does not require any physical issuance. Therefore, it will lead to cost reduction for the organisation. Additionally, the website reveals the issuer will be able to track voucher redemption. The e-RUPI will be beneficial for users as it is easy and secure. Since it has a pre-blocked amount, chances of a transaction being declined will be significantly lowered. As per NPCI, it has a two-step redemption process and the user does not need to share any personal details while redeeming the voucher. Notably, consumers do not need to have a digital payment app to redeem the voucher. Moreover, the e-Rupi is contactless and keeps the details of beneficiaries absolutely confidential. And, beneficiary will not require to share personal details which redeeming the voucher and that's why privacy is maintained.

Service Providers:

Being a prepaid voucher, the e-RUPI would assure real time payments to the service provider.

Operandum:

The e-RUPI is powered by NPCI'S UPI platform and the service has on boarded about a dozen banks to be issuing entities. The beneficiaries will be identified by their mobile number, and the vouchers will be sent or linked to it in the form of QR code or SMS string. The beneficiaries will need to show it to the welfare service provider for the transaction to be completed. No printouts would be required and only the beneficiary can

redeem the digital voucher. As these vouchers are created for a specific purpose they can't be transferred or cashed out.

e-RUPI Vs Digital payment apps:

The chief difference between e-RUPI and other online payment apps is that e-RUPI is not a platform or an app. It is a voucher that can be redeemed for specific services only. Unlike other payment services, the user does not need to have a digital payment app or even a bank account to redeem this voucher.

Futuristic reform:

The e-RUPI, the government's digital payment solution, is meant to ensure delivery of welfare services, which, for now, would be used to push vaccination efforts. The e-RUPI platform would go live for the first time at a Covid vaccination centre in Mumbai. As a beginning, the e-RUPI is applicable on health beneficiaries. People who want to take vaccines from private centres, by paying the cost, if someone wants to help around 100 poor people with the vaccination, they can give e-RUPI voucher to them so the money is used only for that purpose. If the money is sent by the government for books, then e-RUPI will ensure that only the books are purchased. If money has been sent for the uniform, then it should be spent in its use, if money has been sent for fertilizer, then it should be spent in it.

Over the time, more facilities will be added to this platform, like helping in health facilities, donating food, etc. It is also declared that the e-Rupi can be used for delivering services under schemes meant for providing drugs and nutritional support under the mother and child welfare schemes, TB eradication programmes, drugs and diagnostics under schemes like Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, fertilizer subsidies, etc. Even the private sector can leverage these digital vouchers as part of their employee welfare and corporate social responsibility programmes.

Challenges:

According to data intelligence firm Data Reportal, the number of mobile connections in India as on January, 2020 is equivalent to 78 per cent of the total population. And, during the period between January 2019 and January 2020, mobile connections dropped by 1.4 per cent. Enabling the population to get a mobile phone to access to welfare services via e-RUPI will be a problem to be solved.

The e-RUPI is not a fool proof mechanism, especially for tangible benefits which the recipient can obtain and resell later. It may be misused in-kind transfers like e-vouchers have the potential to distort household purchases without marked improvements in the consumption of benefits.

Low-operating efficiency of e-RUPI vouchers is also a significant concern as far as functionality of less-than-efficient digital infrastructure of banks is concerned, which have been appointed to facilitate last-mile deliveries.

Scope for further study:

At present, the governments across the world are working on developing Central Bank-issued Digital Currencies (CBDCs), which are essentially national digital currencies designed to compete with cryptocurrencies, altcoins, and other blockchain derivatives. The e-RUPI, on the other hand, is a different concept altogether that is developed to facilitate electronic transfer of benefits. However, since the e-RUPI voucher's functionality is based on NPCI's UPI platform and it is backed by the Indian Rupee (INR) as its underlying asset, its workings could be used to study existing deficiencies and improve in India's digital payments facilitating network and infrastructure. The studies could further help refine the development of digital rupee.

CONCLUSION

Over the years, several programmes have been launched to ensure that the benefits reach the intended beneficiaries in a targeted and leakproof manner, with limited touch points between the government and the beneficiary. The technology e-RUPI is a tool to help the poor and a tool for their progress. The concept of electronic voucher is expected to take forward the vision of good governance. The state governments too are planning to use e-voucher for better targeting of the welfare schemes. Private sector is also expected to leverage this type of digital vouchers as part of their employee welfare and corporate social responsibility programmes. India has always championed digital initiatives. As the Prime Minister hopes the e-RUPI will give a new face to digital governance in India.

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