

Agpaytech's Research  
10th January, 2023

---

# Is e-RUPI The Future Of Payment In India?



# TABLE OF CONTENTS

**03** Executive Summary

**04** Introduction

**05** How e-RUPI works?

**06** How to use e-RUPI vouchers?  
Is it a new digital currency?

**07** Why is the e-RUPI voucher  
different from other online  
payment applications?

**08** Difference between UPI  
and e-RUPI

**09** Advantages of e-RUPI

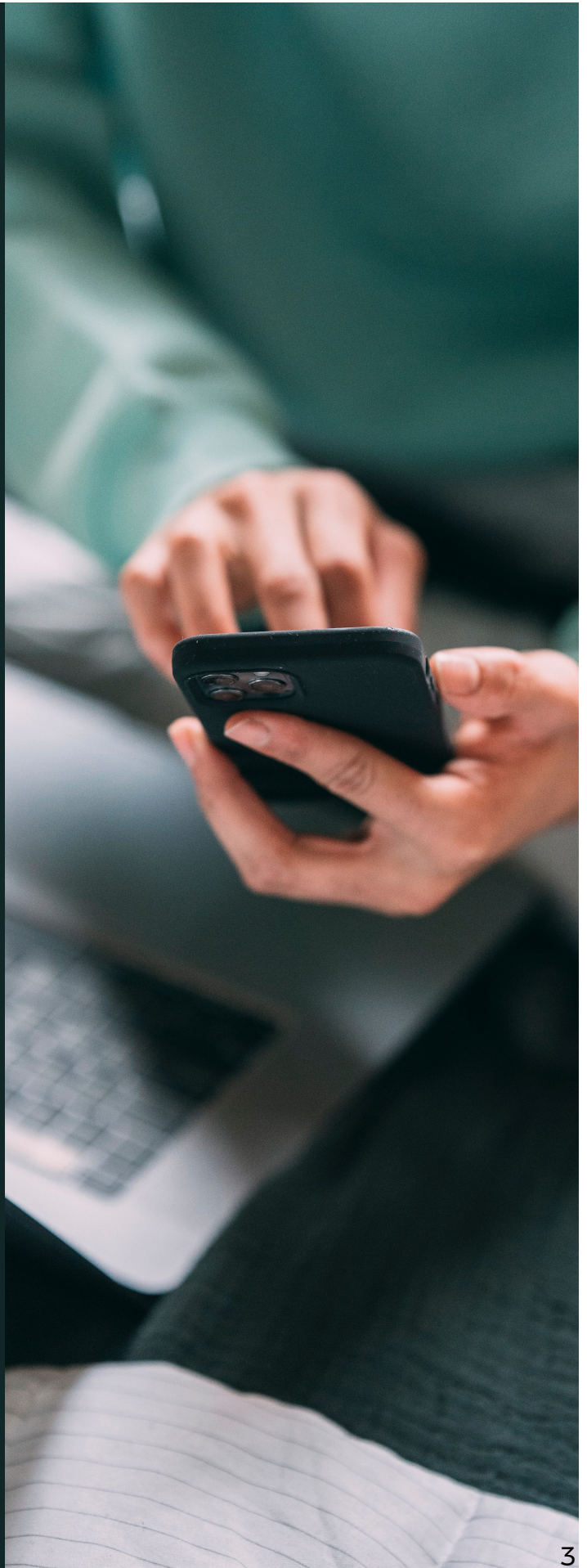
**09** Disadvantages of e-RUPI

**11** How e-RUPI benefits business

**12** Conclusion

## Executive Summary

India is efficiently progressing towards digital payments technology. Multiple digital platforms such as G-pay, Phonepe, and Paytm are accelerating the journey towards a cashless society. The government launched the e-RUPI pilot on the 1st of December 2022, and the root cause behind this launch demands clarification, and its use cases require proper analysis. Questions such as the purpose behind the launch of the e-RUPI need to be answered. e-RUPI is essential in ensuring government benefits and services reach their intended beneficiaries on time. At its launch, Indian Prime Minister, Mr. Narendra Modi said that the e-RUPI voucher would play a massive role in making Direct Benefit Transfer (DBT) more effective in digital transactions in the country and enhance digital governance. He further said that e-RUPI symbolises how India is progressing by connecting people's lives with technology.





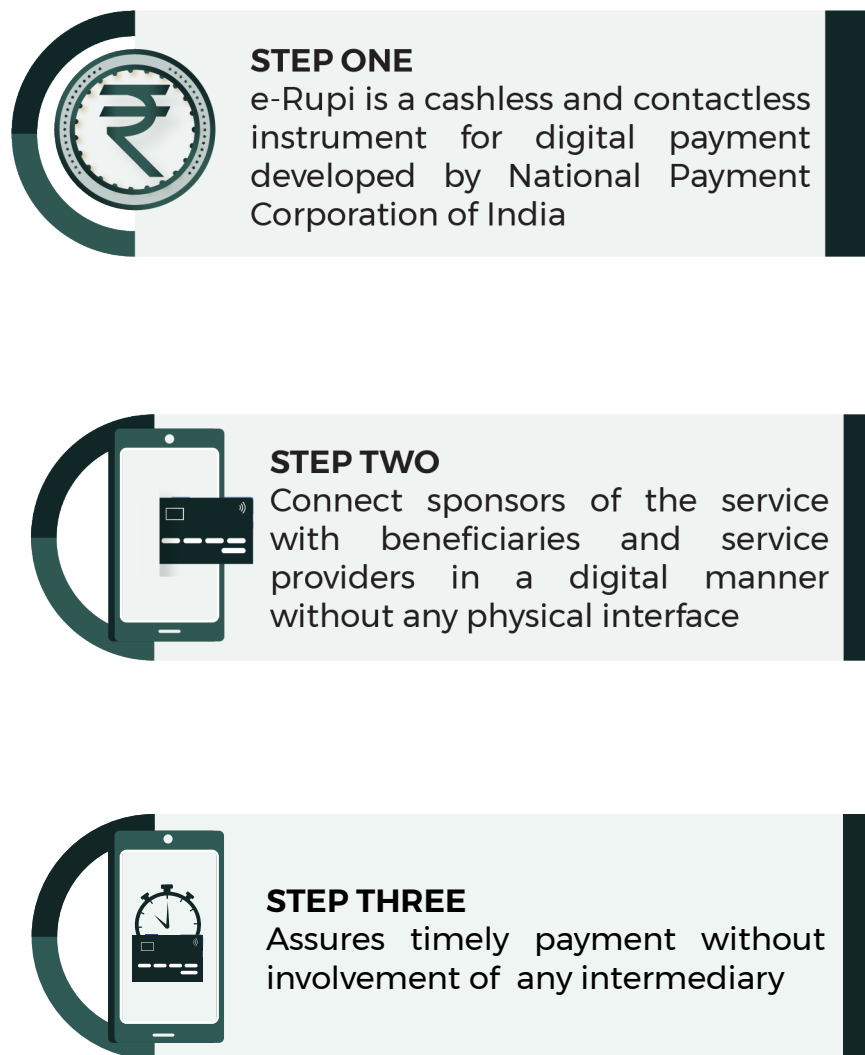
## Introduction

e-RUPI is a contactless payment mechanism. Any individual can redeem a payment voucher without a card, app, or internet banking access at the merchants accepting e-RUPI. This voucher can be used in various outlets such as restaurants, e-commerce websites, and retail stores. It is a revolutionary initiative by the Indian government to ensure a leak-proof and cashless digital payment solution that will be operated based on e-vouchers. e-RUPI is the only platform where there is no need to download the app, a significant design and initial step taken by the Indian government. e-RUPI is built on the Unified Payment Interface (UPI) platform and developed by a strong team at the National Payments Corporation of India (NPCI), in association with the Department of Financial Services (DFS), the National Health Authority (NHA) and the Union Health Ministry (UHM).

## How e-RUPI works?

e-RUPI works on a cashless, contactless principle. A QR code or SMS string-based e-voucher has been delivered to mobile users who can redeem the voucher without using a card, digital payment app, or internet banking access. Through digitalisation, the e-RUPI can connect without physically appearing to the services' sponsors. In addition, e-RUPI assures its users that the payment will be processed to the service provider only after the transaction is complete; it is a prepaid system in nature and ensures on-time payment to the service provider without the involvement of any middleman.

Figure 1: How does e-RUPI work?





#### STEP FOUR

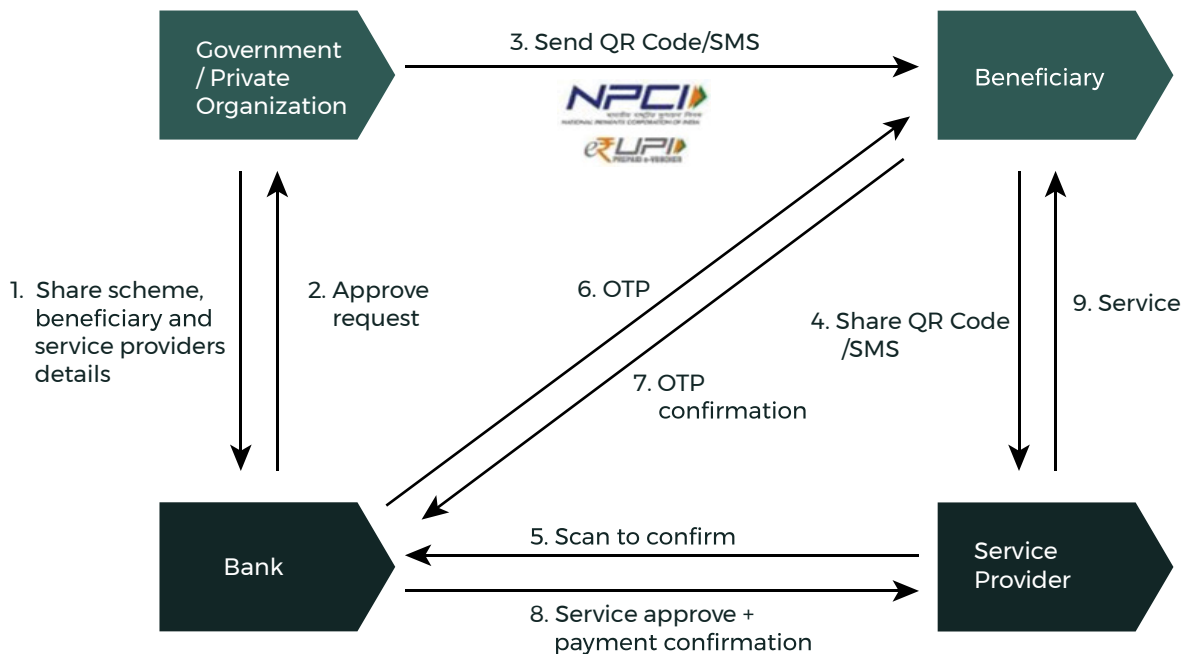
It can also be used for delivering services meant for providing drugs and nutritional support under Mother and Child Welfare Schemes, TB eradication programmes etc.

Source: Agpaytech Research

## How to use e-RUPI vouchers? Is it a new digital currency?

e-RUPI vouchers are prepaid in nature and function like e-gift cards. The card's code is shared via SMS or the QR code. Fundamentally these e-vouchers are person and purpose-specific. Hence arises the question is it a new digital currency? There is a school of thought that considers e-RUPI as a cryptocurrency. However, to clarify, e-RUPI is not a cryptocurrency. Cryptocurrencies are primarily decentralised and are not regulated or governed by any central bank or government. On the contrary, e-RUPI will be regulated by the Indian government and derives its value from the Indian Rupee. The Indian central bank, the Reserve Bank of India, controls the function and flow of the e-RUPI.

Figure 2: e-RUPI vouchers payment system



Source: Agpaytech Research

## Why is the e-RUPI voucher different from other online payment applications?

e-RUPI is a voucher service, and these vouchers are for specific people for specific purposes. The primary difference from other payment applications is the non-requirement of a smartphone, a digital payment app, or any bank account for using these vouchers. In this system, the beneficiaries will not have to share their details which is a defining step towards privacy protection. Some of the highlights of the e-RUPI design system are as follows:

- e-RUPI is not any platform; it is a voucher for specific services.
- This voucher can be used for those without a bank account, smartphone, or digital payment app.
- These vouchers are expected to be used chiefly for health-related payments.



## Difference between UPI and e-RUPI

India's Finance Minister opined that the e-RUPI is a stand-alone payment system. Whereas the UPI is a tunnel for payments processing activities. When we use UPI, the services provider companies do not act as the underlying asset in transactions; however, they transfer the money into the receiver's bank account. Thus, the user's money in the bank is the underlying asset. The closest analogy for any payment made through the unified payment interface is the transfer of currency notes from one person to another.

Figure 2: e-RUPI vouchers payment system

UPI	e-RUPI
UPI transactions are backed, supported, and executed with involvements of banks	The process of the digital Rupee will be more effective and efficient since it will eliminate the need for bank settlements.
Transaction records are kept at multiple levels, however without the involvement of RBI	e-RUPI record keeping is directly managed by the RBI.
To use UPI there is need to download the digital app.	There is no app download requirement since e-RUPI is a voucher system.
UPI payments are made using the digital equivalent of existing currency notes. It means that every Rupee transferred via UPI is backed by physical currency.	The e-RUPI will be legal tender in itself and need not necessarily be backed up by physical currency.
UPI payments currently rely on the settlement of the transacting banks with the RBI.	e-RUPI is no different from the normal Rupee. People can use it to do everyday transactions without any settlement latency.
UPI exchange of money happens from bank account to bank account.	e-RUPI exchange will take place from wallet to wallet.
UPI involves the Intermediaries.	e-RUPI doesn't involve any intermediaries.

Source: Agpaytech Research



## Advantages of e-RUPI

e-RUPI is the latest addition to the Indian banking industry, and this voucher system is very innovative. India is one of the first countries to launch its currency's digital iteration. The perceived feature benefits of using the e-RUPI are as follows.

- e-RUPI is a cashless and contactless digital payment.
- e-RUPI connects service sponsors and beneficiaries digitally.
- e-RUPI ensures leak-proof delivery of various welfare services.
- It will be sent to beneficiaries' mobile as a QR code or SMS string-based e-voucher.
- The users can redeem the vouchers without a card, digital payments app or internet banking access.
- e-RUPI connects the service sponsors with the beneficiaries and service providers digitally without any physical interface.
- It ensures that the service provider payment is made only after completing the transaction.
- Being prepaid, it promises timely payment to the service provider without any intermediary involvement.
- It is also used for services like providing medicines and nutritional assistance under maternal and child welfare schemes, eradication programmes, medicines, and diagnostics under schemes like fertiliser subsidy Ayushman Bharat, Pradhan Mantri Jan Arogya Yojana, amongst many others.
- The private sector can use these digital vouchers for employee welfare and corporate social responsibility programmes.

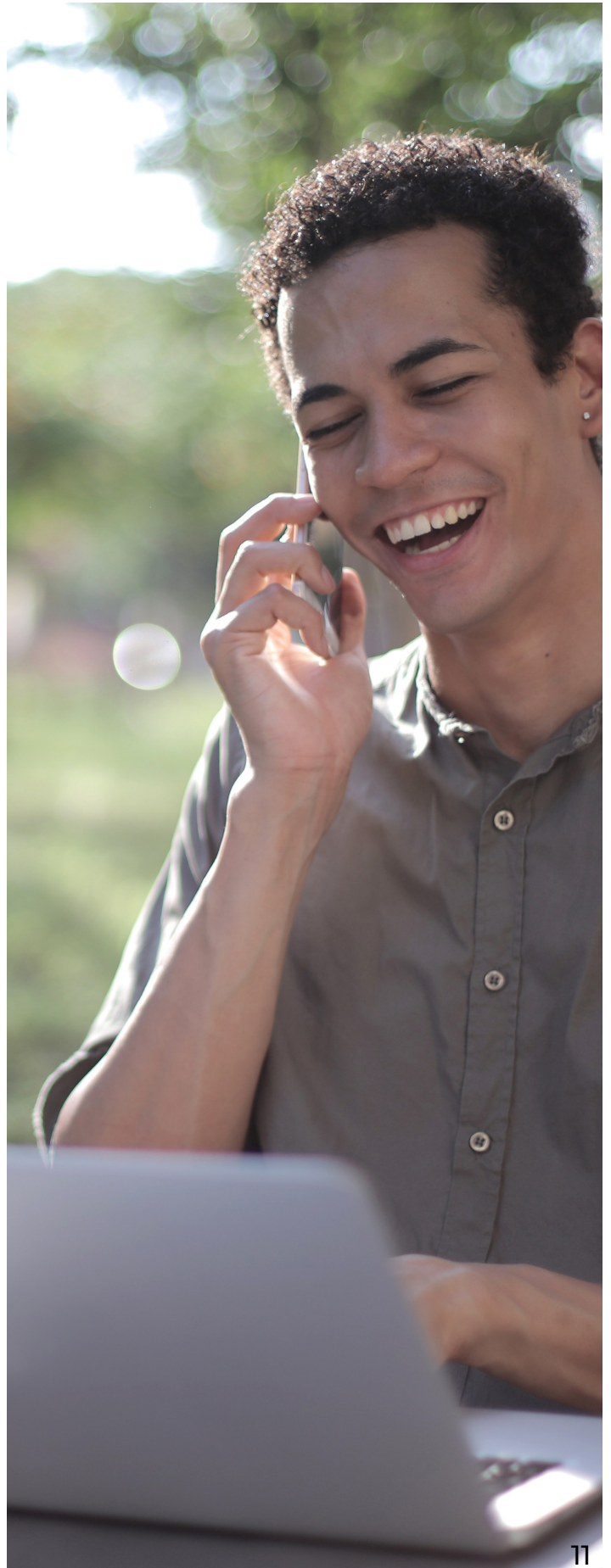
## Disadvantages of e-RUPI

National Payments Corporation of India (NPCI) has made the e-RUPI system highly advanced and secure; the same benefits account for the limitations. Some of the disadvantages of the e-RUPI system are worth looking at from the consumer's perspective. They are as follows:

- **Limited number of banks:** This system relies on eleven banks in India, which means that other regional banks would have to wait until the platform succeeds nationwide. Many hospitals and medical institutions may face a similar issue.
- **Many users still do not have mobile phones:** Many government schemes are meant for the disadvantaged and economically weaker sections. It means they will not be able to redeem the e-voucher as it requires pairing with the QR code at the merchant's or service provider's end.
- **Expiration:** Expiration is one of the most significant disadvantages of e-RUPI. Since e-RUPI is a prepaid service, if a user fails to redeem it within a specific period, the e-voucher will expire. The beneficiary would have to face problems of e-RUPI as they need to learn how to receive it again.
- **Anyone with the user's phone and details can use e-RUPI:** Since users do not need to link their bank account or register elsewhere to redeem the voucher, the system works entirely through mobile phones. The government still needs a provision to check whether the consumer with a registered mobile number exists. In this case, anyone possessing a consumer's mobile can use the service providers to redeem the e-Voucher.
- **Technical limitations:** Server problems using payment gateways such as digital wallets, UPI, or internet banking are common. The e-RUPI system is exposed to similar disruptions, as it needs to be constantly connected. Technological issues are unpredictable and may arise at a point in time. The government and the issuers of e-RUPI vouchers need to ensure there are no technical disadvantages of the e-RUPI platform to avoid bottlenecks in the process.

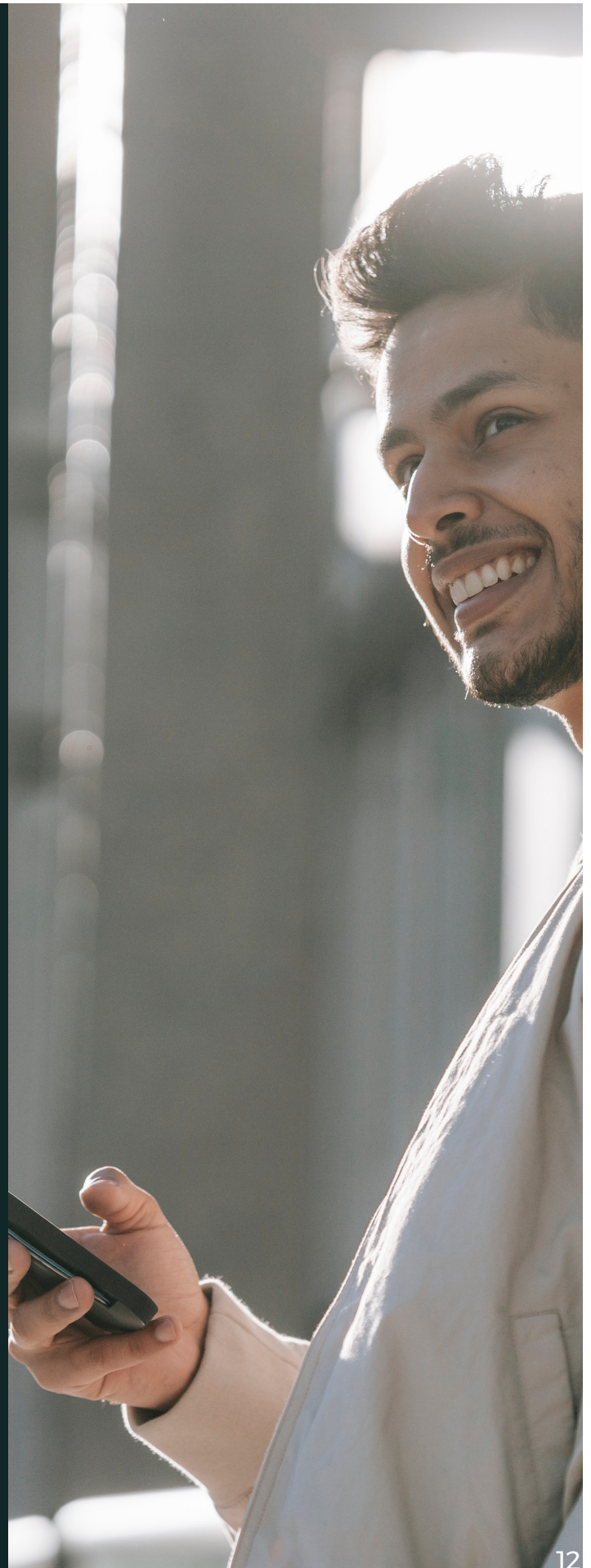
## How e-RUPI benefits business

e-RUPI benefits not only the token's receivers but also aids corporates and hospitals. The beneficiaries of this digital payment system include all the significant stakeholders relating to this scheme. According to the NPCI, the corporates will benefit mainly from this scheme as e-RUPI helps reduce costs since this payment system works on end-to-end digital transactions. The issuer can track the voucher redemption and process a quick contactless distribution.



## Conclusion

e-RUPI benefits not only the token's e-RUPI is the new revolution in the payment Industry. The National Payments Corporation of India has developed e-RUPI in collaboration with other government departments. This initiative helps businesses and the corporate industry. Experts concur that the user base of e-RUPI is expected to widen in the coming days. The private sector is expected to use it to deliver employee benefits, and MSMEs will adopt it for Business to Business (B2B) transactions.



# About Agpaytech

Agpaytech Ltd. is a company pioneering in the Fintech Space with a focused approach to building robust technologies for eCommerce Card Processing Solutions for Payment Service Providers (PSPs). Additionally, we provide Compliance and Regulatory Umbrella, Remittance-as-a-Service White-Label Solution, Foreign Exchange, Cross Border Payments, and digital currency technology. We have partnered with multiple banks, non-banking financial institutions, and corporate organizations to create a solid service delivery model for them and their customers to ease their international remittances and payments concerns.  
Website: [www.agpaytech.co.uk](http://www.agpaytech.co.uk)

United Kingdom  
AGPAYTECH LTD.

3rd Floor, 86-90 Paul Street London  
EC2A 4NE, UK

Email: [info@agpaytech.com](mailto:info@agpaytech.com)

United States of America  
AGPAYTECH USA LLC

9701 Apollo Dr Suite 100  
Largo MD, 20774, USA

Email: [usa@agpaytech.com](mailto:usa@agpaytech.com)