Why Do We Need A Digital Rupee In The Age Of UPI?

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United Payments Interface (UPI) is hailed as one of the greatest innovations that has come out of India. Its ability to support both retail payments and remittances, ease of usage, and interoperability has provided a huge impetus to India's digital inclusion initiatives. Its success can be gauged from the fact that transactions in volume using UPI has already crossed the trillion-dollar mark in 2022. Since its launch in 2016, it is the first time that UPI's transaction volume has surpassed the trillion-dollar mark. Countries such as Japan, South Korea, France, and many others have already adopted India's UPI payment system. This just shows the growing popularity of UPI not just in India but also around the world.

But then, why is RBI coming up with Digital Rupee when UPI is already so successful and popular?

Before we answer this question, let us first understand what a Digital Rupee really is about.

What is a Digital Rupee?

RBI defines Digital Rupee, also known as Central Bank Digital Currency (CBDC), as a legal tender issued in digital form. Put simply, Digital Rupee is the digital form of our currency notes. It would function just like the paper currency notes, and hence, can be used as a medium of payment, as a legal tender, and as a store of value. However, you cannot redeem your Digital Rupee in the form of physical cash! That is, if you have Rs. 1000 in the form of Digital Rupee in your digital wallet, you can use this money only for digital transactions; but you will not be able to redeem this amount in the form of physical cash from any bank or ATM.

Why has the Digital Rupee been introduced?

As per RBI's concept note, there are primarily three objectives for introduction of Digital Rupee: a) reduction in the usage of physical cash, b) provide an alternative to private cryptocurrencies, c) seamless integration of cross-border payment systems.

Let us now explore how Digital Rupee is going to address each of these stated objectives.

Despite the notable progress made in terms of digital inclusion, cash still remains a very preferred mode of transaction in India. According to RBI Annual Report 2021-22, the total expenditure incurred on security printing was almost Rs. 5000 crores during the period from April 1, 2021 to March 31, 2022. This, obviously, is a staggering number, and given how inefficient cash transactions are, RBI wants to bring down this cost substantially. Since Digital Rupee is not redeemable into physical cash, a wider usage of Digital Rupee would simply mean that RBI will have to print lesser number of currency notes. This would mean reduction in the usage of physical cash, thus fulfilling the first stated objective of Digital Rupee.

The second stated objective of Digital Rupee is to provide the populace an alternative to private cryptocurrencies. The RBI believes that proliferation of private cryptocurrencies poses significant risks of money laundering, terror financing, and can jeopardize the monetary stability of our economy. Hence, to curb the proliferation of private crypto assets, the Digital Rupee has been launched which is supposed to provide the public a risk-free option. But there are multiple problems with this objective of RBI. To begin with, unlike private cryptocurrencies, such as Bitcoin, Ethereum, etc., Digital Rupee is not based on Distributed Ledger Technology (DLT). Rather, it is based on centralized ledger technology. This gives RBI complete control (issuance, tracking, monitoring, etc.) on Digital Rupee, which may appear as a deterrent for the users who might consider Digital Rupee as an alternative to private cryptocurrencies. Second, most people who buy private cryptocurrencies do it for asset appreciation. They buy it in anticipation of a future appreciation of value of the cryptocurrency. This aspect is completely missing in Digital Rupee. The value of Digital Rupee is akin to physical form of rupee, and hence would not change any bit when kept in the digital wallet. Thus, RBI's objective of positioning Digital Rupee as an alternate to private cryptocurrencies may well fall short of expectations.

The third stated objective of Digital Rupee is seamless integration of cross-border payments. Now, these are still early days to predict how this shall be achieved, and more importantly, how cross-border payments through Digital Rupee will be more efficient than the already available options at present. As per RBI's concept note, Digital Rupee shall be able to utilize current payment infrastructure such as UPI, and different payment wallets. However, this would require creation of an efficient payment infrastructure. Though this objective looks quite realistic for now, there are a multitude of challenges that need to be addressed before it comes to fruition.

With this understanding of the primary objectives behind the introduction of Digital Rupee, let us now explore how Digital Rupee is different from UPI. More importantly, do we really need Digital Rupee when UPI is already so widely popular?

Digital Rupee vis-à-vis UPI

Both Digital Rupee and UPI enable real-time digital transfer of money. For users, there is really no difference in terms of functionality. However, Digital Rupee and UPI function quite differently from one another when we consider their backend operations.

Say, you transfer some money to your friend using UPI. Now, your friend may wish to redeem that money in the form of physical cash. Since the money has been transferred through UPI, your friend can easily redeem that money in the form of cash. But if the same amount of money is sent in the form Digital Rupee, your friend will not be able to redeem that money in cash. This is because Digital Rupee cannot be redeemed in cash!

Thus, given RBI's objective of reduction of cash usage in the economy, Digital Rupee serves well in that regard. Additionally, UPI transactions function on settlement basis between two given banks. Hence, there is settlement risk involved. Digital Rupee, on the other hand, does not involve any settlement risk. These aspects make Digital Rupee a more viable option as compared to UPI.

However, these benefits are limited to the backend operations only. For an average user, money transfers seamlessly through both UPI and Digital Rupee. Rather, the inconvenience of not being able to redeem Digital Rupee into cash may deter many users from adopting it! Additionally, for UPI transactions, the money is mostly kept in your bank accounts. This means that you accrue interest on that money. But Digital Rupee cannot be kept in your bank accounts. It must be kept in digital wallets. This means that no interest is going to be accrued on Digital Rupee deposits. This aspect too can seriously deter the public from adopting Digital Rupee vis-à-vis UPI.

Next, when it comes to cross-border payments, both UPI and Digital Rupee have a long way to go. UPI, however, has an edge given it is being adopted across multiple countries already. For Digital Rupee to be used for cross-border transactions, the entire payment infrastructure needs to be built. We will have to wait and see how this pans out.

Finally, RBI wants to position Digital Rupee as an alternative to private cryptocurrencies. We have already discussed how this objective seems to be quite misplaced. However, if the Digital Rupee can be evolved to mimic all the functionalities of private cryptocurrencies while ensuring the 'risk-free' guarantee of the sovereign, it can indeed prove to be an attractive alternative. But given the present conceptualization of Digital Rupee, it really seems to be too far-fetched for now.

Thus, based on our analysis, we see that ensuring the adoption of Digital Rupee by the populace to be quite a challenging task for RBI. The primary bottleneck is the front-end usage of Digital Rupee. Both UPI and Digital Rupee function quite similarly for an average user. In fact, since UPI ensures extremely easy transfer of money in real-time, while also ensuring the redeemability of that money into cash, an average user does not really have much incentive to adopt Digital Rupee vis-à-vis UPI. An average user would not care much about operational efficiency of RBI and the banks, while choosing between UPI and Digital Rupee!

How can adoption of Digital Rupee be enhanced?

Adoption of Digital Rupee can be enhanced if three specific changes can be brought into place: a) making UPI transactions chargeable; b) allowing interest payments on Digital Rupee holdings; c) transferring Government subsidies in the form of Digital Rupee.

In December 2021, RBI had released a discussion paper titled, "Charges in Payment Systems" where feedback on charges relating to different payment systems (IMPS, NEFT, RTGS and UPI) were being sought. This created quite a lot of concern and confusion among the public regarding UPI transactions being made chargeable. Finance Ministry later clarified in a tweet that UPI transactions will not be made chargeable, and service providers will have to recover their costs through other means. This makes it quite evident that UPI transactions will not be chargeable in the foreseeable future. However, the costs of UPI transactions need to be recovered at some point and, hence, such services cannot go on for free for long. With the introduction of Digital Rupee now, the Government might well go ahead with charging UPI transactions sooner than later! If UPI transactions indeed become chargeable, it may well lead to higher adoption of Digital Rupee. Quite notably, this will not be a popular decision in the country. Hence, bringing it to fruition may not be easy for the Government and the RBI as of now.

The second measure that can be undertaken is to allow interest payments on Digital Rupee holdings. Now, as per RBI's concept note, a Digital Rupee will behave exactly like physical currency notes. When we keep physical currency notes in our wallets, we do not earn any money on it. So, Digital Rupee will also mimic that feature. No interest will be earned on Digital Rupee holdings. Further, RBI believes that if interest is accrued on Digital Rupee holdings, it will lead to loss of deposits by banks, thus hampering the credit creation capacity in the economy. So, at no point, interests can be earned by storing Digital Rupee.

To improve the adoption of Digital Rupee, the RBI may need to re-visit this aspect. For example, a provision can be made that interest on Digital Rupee can be accrued only if the total volume of holdings exceeds a certain amount. That will incentivize holding higher volumes of Digital Rupee in digital wallets and shall also lead to higher adoption rates.

The third measure that can be carried out is transferring subsidies in the account of the beneficiaries (under the “Direct Benefit Transfer” scheme) in the form of Digital Rupee. Given the lower levels of digital literacy among the rural population of the country, and the consequent inconvenience caused to them due to non-transferability of Digital Rupee into cash, this measure will also cause some opposition at the onset; and quite understandably so! But remember how digital transactions spiked just after demonetization and during the pandemic? When people are left with little or no choice, they do not hesitate to adopt the new normal. Since digital inclusion is the need of the hour, this measure may certainly be tried on a pilot basis.

Concluding Thoughts

Digital Rupee is still at a very early stage. It needs to evolve quite substantially before the public gets excited about it. Right now, purely from a user perspective, UPI provides better benefits than Digital Rupee. However, given the operational benefits that can be derived, it is in the interest of the RBI and the Government to push for higher adoption of Digital Rupee. Remember, UPI did not pick up momentum right at its launch. It took time to gain popularity. The same pattern may follow for Digital Rupee as well!

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