

THE EVOLUTION OF CENTRAL BANK DIGITAL CURRENCIES & THE DEMISE OF CASH

This whitepaper illustrates how Loyalty is 'the' use case that will help central banks discover the risks and challenges of CBDC's and their safe adoption.



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INTRODUCTION

Of all the advancements towards a future state economy enabled by the increasing adoption of Web3 technologies it could be argued that the most investment and resources are being poured into the creation of Central Bank Digital Currencies i.e. CBDCs.

Governments and institutions alike have teams of the best Web3 engineers and economists building and modelling CBDCs to see if they really offer the huge opportunities their promoters predict.

But changing an entire money system on a national level or even introducing a parallel new one is hard as it requires many active ecosystem participants to step in and understand, use, adopt and secure the new technology and processes.

Loyalty currencies are some of the biggest financial vehicles in the world in the collection storage and use of billions of dollars of assets individually, trillions collectively each year, but also offer a relatively lower risk entry point to Web3 on the road to CBDCs.

This paper looks at this opportunity, for Governments, Institutions, Banks and Commerce partners to test, learn and adopt Web3 financial management tools, at scale, but without the reputational risk of switching over a live money system.



THE POTENTIAL +

Currently many countries and their Central Banks are exploring, some even stating intent to launch CBDC's imminently, or are in various stages of approvals and implementations.

CBDCs are Governments response to the evolving Web3 - based digital economy which has captured consumers imagination with the freedom of money that Bitcoin offers, financial institutions with investment opportunities and corporate business with the ease and speed of frictionless payments.

In simple terms - A Central Bank Digital Currency (CBDC) is a digital form of a country's national currency issued and regulated by the central bank.

It serves as a legal tender, just like physical banknotes and coins, but it exists only in a digital, electronic form using new digital systems for banking and payments that are not based on the old money system of replicating bank deposits of gold.

The speed and security achieved, using a blockchain infrastructure instead, has the ability to take days out of existing value transfer, reconciliation and settlement processes that the banking world uses today, improving efficiency and reducing risk.



WHY CBDC'S NOW?

CBDCs are important in these times for several reasons:

Digital Payment Evolution:

The world is changing fast and several new digital payment methods and fintech solutions are now seen mushrooming. This is where the Central Banks want to step in to provide a secure and regulated digital alternative to private digital currencies and cryptocurrencies.

Financial Inclusion:

CBDCs can promote financial inclusion by providing access to banking services. My own experience in UAE states that around 4.4M people in the UAE are unbanked or underbanked and don't have access to bank accounts.

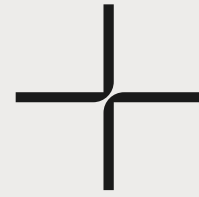
Efficiency and Convenience:

CBDCs biggest impact is the efficiency that would be created in the speed of payments, reducing settlement times and transaction costs. CBDC's also offer greater convenience to customers and B2B players in making digital payments without relying on third-party payment processors.

Response to Decline in Cash Use:

The world is moving towards a cashless society and many countries are seeing a decline in the use of physical cash. For the Central Banks in the countries to remain involved in digital economy, CBDC's will offer the necessary infrastructure to modernize the payment system.

WHY CBDC'S NOW?



Security and Fraud Prevention:

Digital currencies built on secure technologies like blockchain can enhance the security of transactions, reducing the risk of fraud and cyberattacks.

Enhanced Regulatory Oversight:

CBDCs can create an ecosystem for the Central banks to monitor transactions in real-time, ensuring greater compliance with country's regulations and better oversight of the financial system.

Public Confidence:

CBDCs will provide greater confidence in the market for adoption of private digital currencies and cryptocurrencies, as CBDC's issued by central banks can provide a level of trust and stability.

Pandemic Response:

COVID – 19 has taught a lot of lessons to humankind and one of them was to go cash-less as far as possible. Covid has accelerated the adoption of digital payments, and this is something Central banks need to respond to.

CHALLENGES IMPLEMENTING CBDC

Implementing Central Bank Digital Currencies (CBDCs) presents several challenges that need to be carefully considered and addressed. Some of the key challenges include:

Technology Infrastructure:

Needs a robust and secure technology infrastructure that supports CBDC's – issuance, distribution, storage, and transaction reconciliation and settlement.

Cybersecurity and Fraud Prevention:

Given the ease of transactions on blockchain security becomes of utmost important to CBDC's, not just on the blockchain but the tools and interfaces point to it.

User Adoption (Resistance to Change):

Businesses and Senior Managers have built their infrastructure and spent their careers doing things the old way and are likely to resist change as fear of the unknown.

Financial Inclusion:

Central banks will have to work with new age Tech vendors and Fintech's to create processes and systems that can drive financial inclusion through old-tech phones and interfaces.

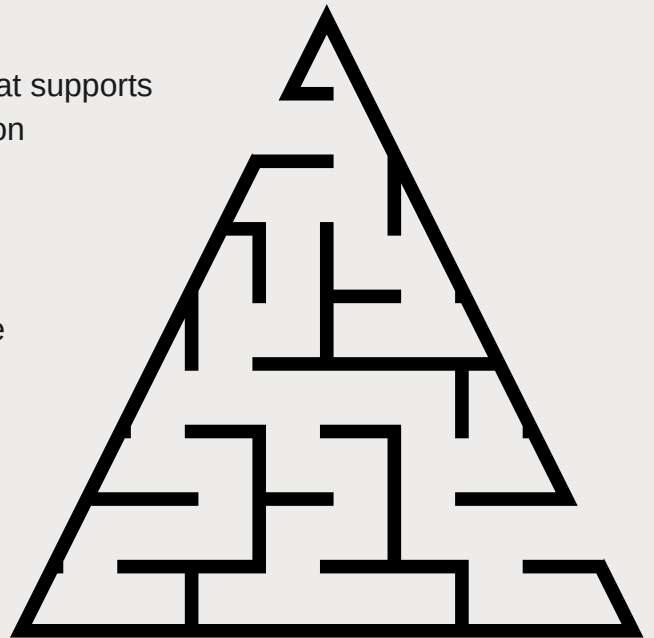
Interoperability:

Agreeing the common standards and protocols enables the ability for different systems, technologies, or platforms to seamlessly work together by agreeing to common best practices around sharing and exchanging of data.

Cross-Border Transactions:

Facilitating cross-border transactions involving CBDCs requires nations to work together to address the international rules and regulations that can vary from country to country and region to region.

Addressing these challenges requires collaboration among central banks, governments, regulatory bodies, financial institutions, technology providers, and other stakeholders to ensure the successful and responsible implementation of CBDCs.



HOW LOYALTY HELPS?

The fundamental accounting of any established loyalty ecosystem of partners as the same basic in needs as that of a national currency system including;

- Commonly accepted and unique identifiers for consumers and companies, possible with their privacy data abstracted away into separately controlled databases.
- Value currency, in the form of points not cash.
- Different transaction types between actors i.e. earn, transfer, redeem etc.
- Connectivity between actors for two way data and value flows.
- The need for inter-actor accounting, reconciliation and settlement.
- Multi-layered security for managing data and value.

Therefore, fundamentally a loyalty programme running on blockchain could have principally the same requirements as a CBDC system, as a POC or even MVP for all the learnings and capabilities that would bring.

And whilst loyalty points are very important to a customer and still carry reputational risk, it is not as mission critical as managing someone's actual money, especially given that in most cases loyalty points only actually incur a miniscule nominal value, not the full face value.

So overall the risk of using Web3 for loyalty for financial institutions and others is very significantly lower, yet the learnings and opportunities are a big step forward towards full CBDC participation.



MOVE NOW TO GET AHEAD OF THE GAME



Globally loyalty programmes carry trillions of dollars of liability for their parent companies and here it would be unwise to try and move that value onto unproven and untested technologies from the get go so no established legacy loyalty system ever will.

Not to say that a fresh start-up won't build loyalty natively on blockchain as some already are, but as their liability levels are so low so is the initial risk and often the start-ups need blockchain to access the product differentiators available from Web3.

Instead the lowest route to entry is to doing new things on blockchain, a new digital points currency separated from the main product, or parallel running the points currency and a shadow ledger on blockchain.

For the early adopters of this approach the outcomes are teams of experienced Web3 implementers, with hands on practical experience having built new capabilities, processes and protocols, ready for the greater step to accepting and thriving in a future CBDC and Web3 commerce environment.

Loyyal was designed and built for this future, of using new technologies to accelerate and improve loyalty transactions at lower cost and with better outcomes for customer, partners and programmes alike.

About the authors:

Gunjan Kumar is the Chief Revenue Officer at Loyyal with over 20 years experience in loyalty and advancing technology, having worked across a variety of business verticals at some of the world's leading specialist loyalty consultancies.

Stuart Evans is a career marketer delivering loyalty and customer engagement specialising in using emerging technologies including Web3 and blockchain to innovate and differentiate the customer value proposition and customer experience.