CRYPTOCURRENCY: A GAME-CHANGER

FOR DIGITAL MARKETING

Cryptocurrencies are currencies, just like rupee, and the math of any transaction works out pretty much the same way. But a crypto isn't dictated by any organisation or an individual. And we get this done by, yep you guessed it, blockchain ledgers! How a blockchain works in practice is, everyone keeps a copy of the blockchain, and whenever there's a change (like a transaction, or a contract, and now, even a birth certificate!), it's updated across the entire network.

Imagine three friends, Alice, Bob, and Jack, have maintained a blockchain ledger amongst themselves to keep a record of all the transactions between them. Whenever they have to add a transaction on a block, they need some kind of password that's private to them (this is called a private key in cool-people-language), and there's a public signature which can be used to verify that a person did that transaction.

If Alice wants to cheat, and add more money to her account, and hence ends up doing that on a block from two days back. The other blockchains can very easily find out that Alice's blockchain is 'different'. How does one decide who's right? Blockchains are truly decentralised, and owned by the 'masses' and hence, the rule of majority prevails! In the story, Jack and Bob's blockchain won't match and Alice will be found guilty and hence be penalised. We can also see, if either one of Jack or Bob was in on it, the situation would've ended differently. This is also called a *51% attack*, if the wrong-doer gets hold of 51% of the representation on a blockchain, everything goes south. There are many other nuances, like minting new blocks, and who gets the reward of minting, and many other details.

Now that raises a lot of questions, how do we make sure that blockchain actually remains unchangeable? If it's actually a transparent process and program, one can always go back and find a way to change the previous transactions and get themselves a million dollars, how do we prevent that?

Now we can't have an organisation controlling it via a closed-door software (as we'll see that makes it 'centralised', in crypto-bro-code, centralisation is your enemy, also, this will basically just be a bank with everyone's transactions visible, hence no point). How decentralisation is 'implemented' in practice is basically protocols. This is how cryptography works, we won't go into much detail, but the process generally involves one-way hashes. Hashing is widely used in blockchain, especially in cryptocurrencies such as Bitcoin. Blockchain is a digital ledger that stores transactional data, and each new data is called a block. Since all participants in a blockchain have access to identical data, ensuring the integrity of previous transactions is critical. This is when hashing comes to play, as it ensures the integrity and immutability of data stored in blocks.

Now let's take a look at what a cryptocurrency user says:

'I was first introduced to bitcoin in school, by some of my friends. Fast-forward to 2nd year, I was a freelancer and did projects for clients from different parts of the world. Now I wasn't very comfortable with sharing my personal details with these people, like the Aadhar number, PAN number. So, I went for payments in crypto, I used to receive the amount in my hardware wallet, and I could liquidate it when I went to Kolkata'.

The internet, as we know, it is changing fast. Decentralisation and blockchain technologies will play an even greater role in the days to come. But what happens to the companies which are running the web right now? The big corporations will change the way they operate, although we can safely say they'll be there for quite some time to come. The applications will be decentralised and will run off of a blockchain backend. We can imagine this as the famous social media platform being a layer over the data resting on the blockchain.

The top 10 cryptos in India are as follows:

• Bitcoin (BTC)

• Tether (USDT)

• Ripple (XRP)

• Shiba Inu (SHIB)

• Litecoin (LTC)

• Elrond (EGLD)

• USD Coin (USDC)

• Ethereum (ETH)

• Ripple (XRP)

• Dogecoin (DOGE)

Now let's look at what Daniel Croker, a business owner, has said about his experience with cryptocurrency. In 2012, Daniel Croker was completing an apprenticeship at an IT company. Every lunchtime, he would chat with his colleagues about side hustles to make sone extra money. When the topic of bitcoin came up, he decided to give it a go and make a small investment.

He then held those coins as their value grew and grew. Last year, he sold some enough for half the deposit of his house. 'I do know people who have gone in deep, but I think I've been lucky enough already'.

Now let's talk about cryptocurrency's impact on Indian economy. The Indian cryptocurrency economy has been ranked second in global cryptocurrency adoption, just behind Vietnam. The size of the cryptotech market in India is anticipated to reach $251 million by 2030, growing at a compound annual growth rate of 14%, with the potential of creating 877,000 jobs by then.

The future of cryptocurrency holds vast potential for disruption and innovation in the financial sector. While cryptocurrencies offer advantages such as decentralization, security, and accessibility, investors must know the market's volatility and associated risks. As the cryptocurrency ecosystem evolves, technical advancements, regulatory developments, and

institutional adoption will play crucial roles in shaping its future. Embracing this digital revolution with caution and informed decision-making can unlock exciting opportunities for investors and contribute to transforming the global financial landscape.