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Block Chain Technology-Based Secure E- Wallet System

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Abstract: *According to a survey of Forex Bonuses 2017, Sweden and Canada seem to be linked with the cashless economy. An economic system where only minor amounts of currency are used in transactions is known as a cashless economy. The foundation of a cashless economy is the use of credit cards, debit cards, wallets, or other digital payment methods. Although people in India still prefer to carry cash rather than credit or debit cards, the country is transitioning to a "less cash economy" phase. Controlling the shadow economy, corruption, financing of terrorism, trafficking of people and drugs, counterfeit currency, and other issues is crucial. The cashless economy is economical, conducive to company growth and financial inclusion, etc. It is being promoted by the government via the BHIM app, AEPS, Digital, etc. Cashless economy demands strong digitalization. It has various challenges-escaping attitudes of people, poor transaction security mechanism, insufficient infrastructure etc. it is boon to industries like UBER and OLA. On secondary data, more analysis will be performed. Cashless Using BCT, India's economy is feasible and will be more secure. BCT has the ability to eliminate cash in India. both clear and safe.*

Keywords: E-wallet, payment, cashless economy, BCT, etc.

I. INTRODUCTION

Today, using one of the various digital payment options, sending money or making a purchase at a business only takes a few clicks. In fact, all you need to get started is a cell phone number; you don't even need a bank account! As a result of India's shift to a cashless economy, widespread digitalization is fostering the emergence of cutting-edge Fintech businesses and a burgeoning ecosystem of users and service providers. By developing individualised digital offers from a single business process now provided by banks, fintech is "unbundling financial services." The products are often distinguished by little documentation, user-friendly digital interfaces, and, most crucially, huge savings.

Customers have typically used non-institutionalized financial services because of the time and cost savings. Banks all across the world are partnering with fintech companies rather than viewing them as competitors as a result of fintech's' disruptive role. Blockchain has established itself as the crucial technological foundation of digital currencies, international trade, and supply chain-dependent businesses because it upholds the confidence and immutability at the core of financial services. Banks will become more inclusive as Fintech democratises financial services, putting the needs of the customer first and giving them more options.

Here are some examples of how blockchain is being reinvented. Do you need to send money abroad?

Today, money transfers move via numerous banks before reaching the recipient's bank, establishing confidence along the way. This delays the transfer and increases the transaction's cost. Blockchain facilitates this process by enabling direct and immediate money exchange, which validates trust and streamlines it. The Global Financial Transaction Network from IBM and Ripple are two of the top remittance networks.

Doubtful about our Investment

As buyers, we're always looking for quality and value in the purchases we make and the products we buy. Establishing trust and transparency is necessary for worry-free business transactions. For instance, if the nation's bullion records could be stored on a blockchain, its net value would be immutable and visible by virtue of its features. You might sell or

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buy with total confidence and even confirm the validity of your acquisition. Imagine being able to trace a precious metal all the way back to the mine or the distributor! Among the best options is a Diamond Blockchain named Ever ledger.

Learn more about your Customer

Innovative start-up Signy has developed a digital trust platform for banks that relies on blockchain and A.I. to verify identity and do away with the time-consuming procedure of KYC document verification. uses Watson's skills for natural language processing and image recognition to examine the unstructured content of identification documents and verify their authenticity. The verification procedure for banks might be sped up by about 80 percent with the use of a digital trust platform, going from two weeks to just two days!

Faster Insurance Claims

With the help of blockchain technology, one of India's biggest insurance providers can pay out travel insurance claims to customers more quickly. Through their portals, which are linked to the airline information system, customers can purchase insurance. Flight delays and cancellations are tracked in real time by airline companies, and on confirmation of the booking, the associated claims are instantly reimbursed to the customer's bank account.

Start using Blockchain for Innovation

We'll soon be a part of trustworthy, immutable networks that make it easier to complete any transaction, whether it's initiating or rectifying one, as a result of the rapid acceptance of blockchain. With Fintech leading blockchain adoption, there is a huge opportunity for creative businesses. Blockchain is reshaping businesses beyond finance, including those in fields as diverse as healthcare, government, and manufacturing. It is obvious which technology you should start researching if you're considering the next major supply chain, transaction, or finance-driven innovation.

II. LITERATURE REVIEW

Jain, P.M (2006) In Their Article "E-Payments And E Banking "An Analysis Of Cashless Transaction System Growth Pattern." Utilizing Technology To Its Utmost Potential Will Ensure That Banks And Other Financial Organisations Make The Best Use Of Their Resources. He Also Emphasised The Necessity Of E- Payments And The Various E-Payment Methods.

P Manivannan (2013) in his research paper "Plastic Money a way for cash Less Payment System" looked at the use of plastic money, or credit. Card was once considered a luxury but is now a necessity. The question of whether the long-term transition to The use of credit and debit cards encourages 56 international nations. They came across the digital card. Payments can raise consumption and improve efficiency of monetary system. Mieseigha and Ogbodo (2013) add that the implementation of Transparency requires computerised transactions, accountability, the decrease in cash-related fraud essential components of economic expansion development.

Handa and Liao (2010). Cheque Payments Will Largely Be Replaced By Electronic Payments, But Cash- Based Payments Will Still Be Used To A Significant Extent. A Cashless Economy Like Sweden

Garratt cited Sweden as an example of a cashless economy in operation. In Sweden, the GDP of the nation is less than 1.2 percent in cash. The majority of companies in the nation do not accept cash payments. Banks in Sweden now largely avoid dealing in cash. The implementation of a cashless economy is being hampered in the United States by a number of problems. Among these important issues are worries about online privacy and public trust in the government.

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III. PROPOSED SYSTEM

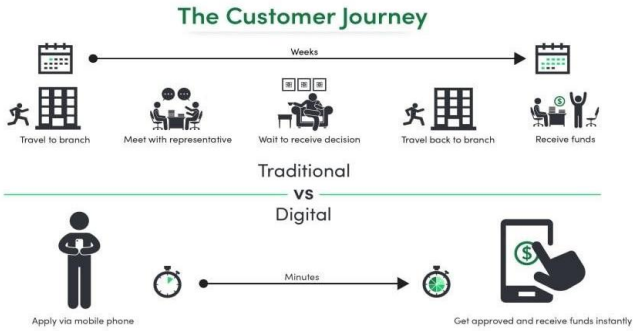

Figure: Digital Transaction using BCT

3.1 Algorithms

Database encryption is carried out using the AES algorithm. Round keys are a special collection of specially derived keys used in the encryption process. These are used on an array of data that contains exactly one block of data—the data that will be encrypted—along with other operations.
We refer to this array as the state array *Title and Author Details*

3.2 Steps

1. Use the cypher key to determine the set of round keys.
2. Set the block data as the state array's initial value (plaintext).
3. Add the starting state array's first round key.
4. Make nine iterations of state manipulation.
5. Complete the tenth and final state manipulation round.
6. Export the encrypted data as a copy of the final state array (ciphertext)..

3.3 MD5:Hash Function

- Step 1. Append Padding Bits. The message is "padded" (extended) so that its length (in bits) is congruent to 448,modulo 512.
- Step 2. Append Length.
- Step 3. Initialize MD Buffer.
- Step 4. Process Message in 16-Word Blocks.
- Step 5. Output

With a hash value of 128 bits, the MD5 (Message-Digest algorithm 5) is a popular cryptographic hash function. In addition to being widely utilised in security applications and being an Internet standard (RFC 1321), MD5 is frequently employed to verify the integrity of files. Typically, an MD5 hash is written as a 32-digit hexadecimal number.

IV. CONCLUSION

Businesses will gain from embracing Blockchain technology for online transactions on a global scale. This is primarily because Blockchain is an actual decentralized system for managing money that permits money. Blockchain will help small businesses, which face payment challenges but may scale up more quickly in the digital sphere, as well as international corporations, which must deal with various rates and currencies. As a result, we're going to use Android and blockchain technologies to develop a cashless economy model

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