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THE UNFOLDING OF FINTECH: 'A Study on Financial Technology.'

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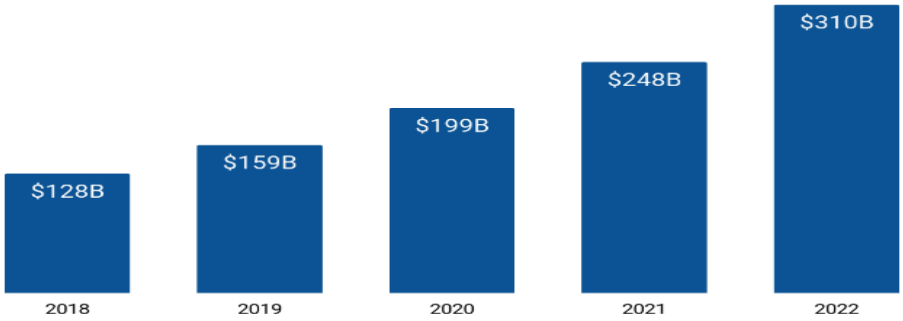
Abstract: The term FINTECH refers to the junction of finance and technology, as well as how they are employed to progress finance. Fintech encompasses a diverse range of industries, including education, banking, insurance technology, payments, lending, and more. Fintech also covers the digitization of assets and the use of cryptocurrency via blockchain technology. Blockchain is a ground-breaking technology that allows users to record transactions on a decentralised, distributed ledger without the use of a middleman. Cryptocurrency is a derivation of the blockchain revolution, which some refer to as "the trust machine." This paper is mainly focused on the application of block chain technology i.e., cryptocurrency that has an impact on financial sectors. This paper focused on secondary data as perceived by many researchers through the collective references with the help of several investigations conducted by the experts. This review article is a Pure research or Fundamental research in nature. The secondary data is collected from online database, journals, and e-books respectively.

keywords: Digitization, Cryptocurrency, Blockchain Technology, Decentralised, Ledger

INTRODUCTION:

FINTECH: The term "FinTech" was coined in 2014 in response to traditional financial institutions' failure to innovate despite having vast amounts of resources and technology at their disposal.

TITLE: GLOBAL FINTECH REVENUE 2018-22,



GRAPH NO.-1, SOURCE- https://www.t4.ai/industry/fintech-market-share[1]

FinTech applies to businesses that provide financial services using technology to provide consumers with simpler, more systematic, and translucent goods and services than are now accessible. FinTech companies operate in a variety of business lines and models, as well as a variety of industries, ranging from crowdfunding to credit providers, cryptocurrencies to angel investment networks, thus they can't be described by legal definitions.

[1]https://www.t4.ai/industry/fintech-market-share

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TITLE: FINTECH ADOPTION RATES,

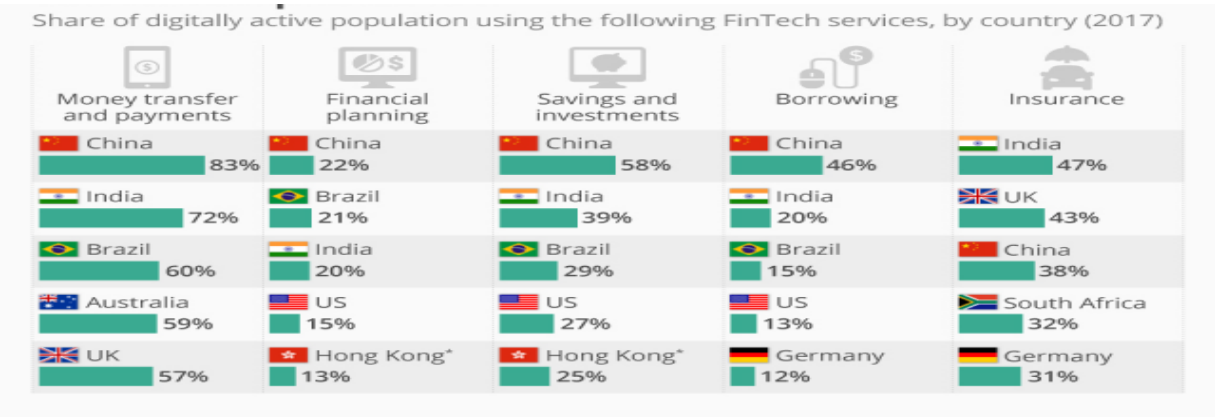

FIGURE NO.-1, SOURCE- https://www.statista.com/chart/10012/fintech-adoption-rates/[2]

Mobile banking, mobile payment, crowdfunding platforms, cryptocurrency and blockchain, insurtech, and many other fintech applications are available.

TITLE: APPLICATIONS OF FINTECH IN VARIOUS SECTORS,

FIGURE NO.-2, SOURCE- https://www.cbinsights.com/research/report/fintech-trends-q4-2020/[3]

BLOCKCHAIN:

Blockchain is one of the most intriguing technologies, with applications in a variety of facets of the industry. A blockchain, in technical terms, is a public digital system that records a series of transactions and is shared among all users without the need for third-party verification. The transactions are structured into blocks, and a chain is made up of all the blocks. To assure the safety of the data requested, block chain technology outlines a logical contract between two parties in which the addition of new blocks is confirmed by a combination of peer-to-peer networks, unanimity, and security protocols. Blockchain is also known by many other names, including cryptographic ledger, public transaction ledger, digital ledger, and so on.

[2] https://www.statista.com/chart/10012/fintech-adoption-rates/

[3] https://www.cbinsights.com/research/report/fintech-trends-q4-2020/

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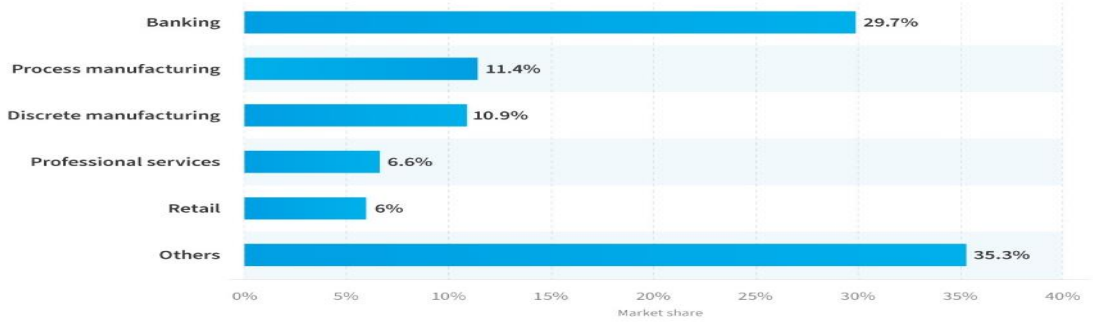
TITLE: DISTRIBUTION OF BLOCKCHAIN MARKET VALUE WORLDWIDE IN 2020,



GRAPH NO.-2, SOURCE- https://www.statista.com/statistics/804775/worldwide-market-share-of-blockchain-by-sector/[4]

HOW DOES BLOCKCHAIN WORKS:

TITLE: PROCESS OF TRANSACTION IN BLOCKCHAIN,

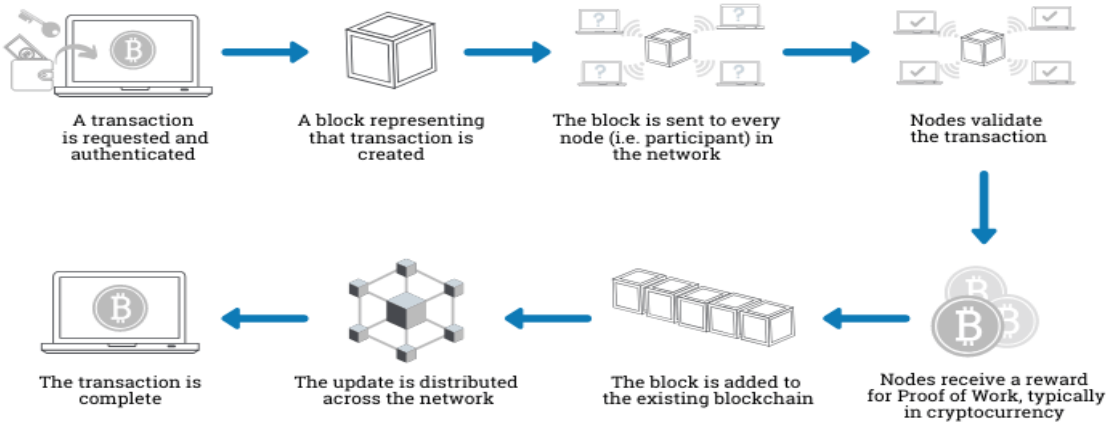


FIGURE NO.-3, SOURCE: https://www.euromoney.com/learning/blockchain-explained/how-transactions-get-into-the-blockchain[5]

Blockchain is a database or digital ledger of transactions, however it differs from standard databases in that data is held on a centralised server with a single Authority, authorised to edit or remove the data. Data is exchanged across a network of computers that all run on a specific software that ensures all data remains similar. However, not all data is encrypted and can only be modified by those who have been given permission to do so.

A block is a data-based piece of information. A time stamp is included in the block, which is used to generate the block's hash. The previous block's hash is also included in this block. A block can store a variety of data, including medical records, electoral information, smart contracts, and land records. The hash is a block's unique identifier, similar to a person's fingerprint. Each block also contains the prior block's hash. This is what gives this technology its name by forming a chain of interconnected blocks.

In blockchain, there is a cryptographically verifiable chain of ownership history for each unit in the chain. Because the registry is open to the public, anyone may check how many units are in circulation, who owns them, and what their ownership history is at any moment.

[4] https://www.statista.com/statistics/804775/worldwide-market-share-of-blockchain-by-sector/

[5] https://www.euromoney.com/learning/blockchain-explained/how-transactions-get-into-the-blockchain

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Because the information is maintained across numerous computers, transactions are not only confirmed by a single Authority, but also by the consensus of multiple users and they are also known as miners. The blockchain aids in the secure storage and validation of sensitive data while also establishing trust.

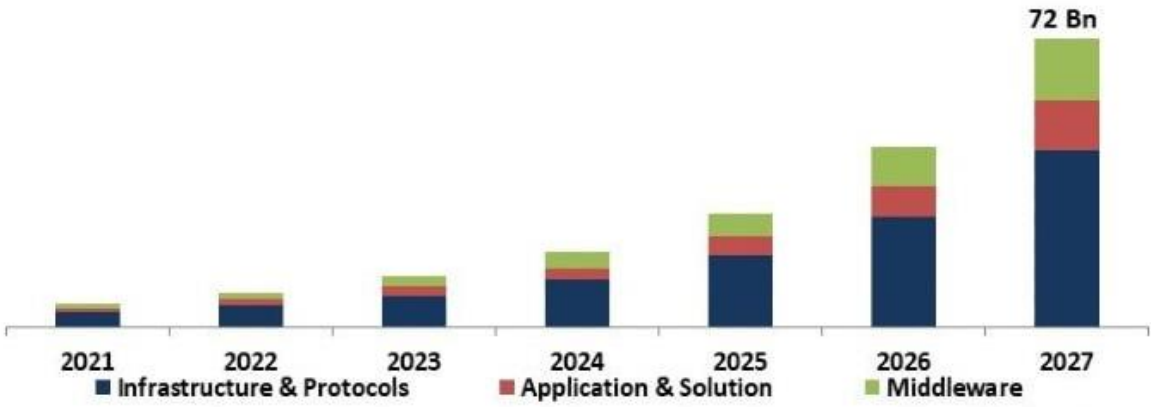
PROS OF BLOCKCHAIN:

- INTERNATIONAL PEER-TO-PEER TRANSACTION.
- BETTER PRICED TRANSACTIONS
- SECURITY

CONS OF BLOCKCHAIN:

- THE COST OF MAINTENANCE
- EXTREMELY HIGH ENERGY CONSUMPTION
- VOLATILITY

TITLE: BLOCKCHAIN TECHNOLOGY MARKET SIZE, BY COMPONENTS, 2021-27,



GRAPH NO.- 3, SOURCE-https://www.kbvresearch.com/blockchain-technology-market/[6]

CRYPTOCURRENCY:

"With the rise of Bitcoin in 2008, the term cryptocurrency was used to describe a protocol that allowed a network of people connected via peer-to-peer digital communications infrastructure to create digital tokens and move them between themselves while safeguarding the process through cryptography" (Satoshi Nakamoto, 2008)

[6] https://www.kbvresearch.com/blockchain-technology-market/

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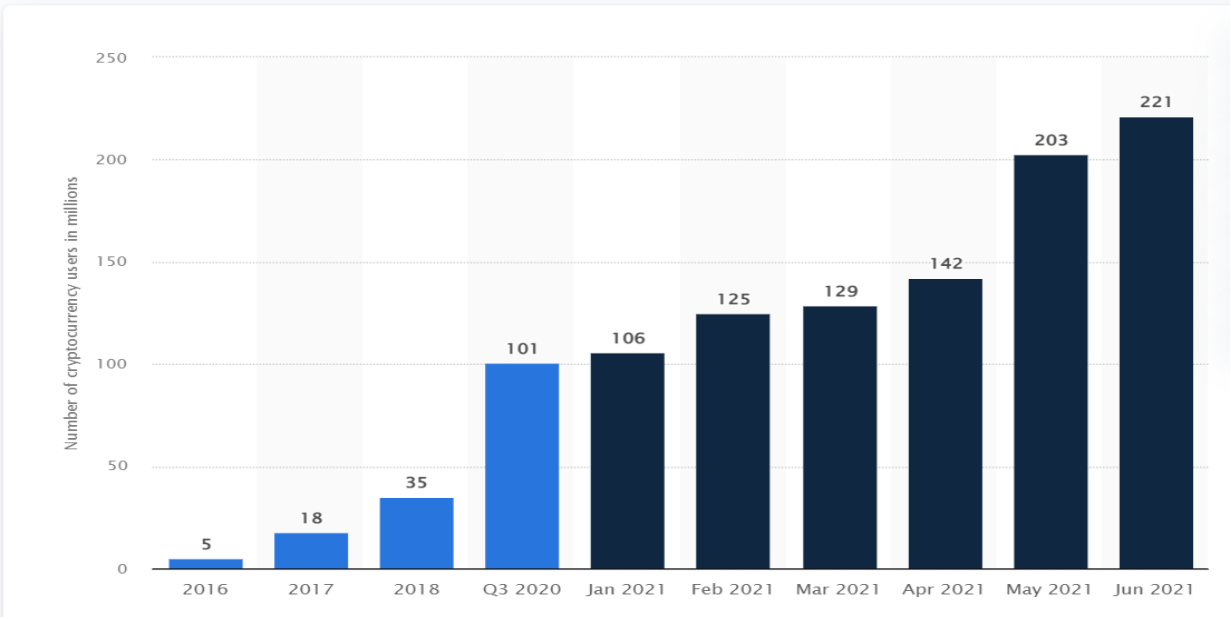

GRAPH NO.-4, SOURCE- https://www.statista.com/statistics/1202503/global-cryptocurrency-user-base/[7]

Cryptocurrency is a digital representation of valuation which is not issued by a central bank or a government and is not directly tied to a national currency, but is designed to be recognised as a means of payment by some groups and can be transferred, stored, or traded electronically, according to one definition.

To regulate access and authenticate transactions, cryptocurrencies rely on different existing cryptographic techniques (hashing, digital signatures, or one-way cryptographic functions) running across a network. They validate transactions using a 'consensus mechanism,' which is a means for achieving network-wide agreement on whether a transaction is valid or not.

Distributed ledger technology is the name given to the technology that underpins cryptocurrencies (DLT).

TYPES OF CRYPTOCURRENCIES:

In the year 2008, Bitcoin became the first cryptocurrency. Altcoins are all the coins that aren't bitcoin. According to studies, there are currently 18,000 cryptocurrencies in circulation. Here are several examples:

- ETHEREUM (ETH)
- DOGECOIN (DOGE)
- SHIBA INU (SHIB)
- TRON (TRX)
- STELLAR LUMENS (XLM)
- LITECOIN (LTC)
- RIPPLE (XLR)
- CARDANO (ADA)
- SOLANA (SOL)
- MONERO (XMR)

[7] https://www.statista.com/statistics/1202503/global-cryptocurrency-user-base/

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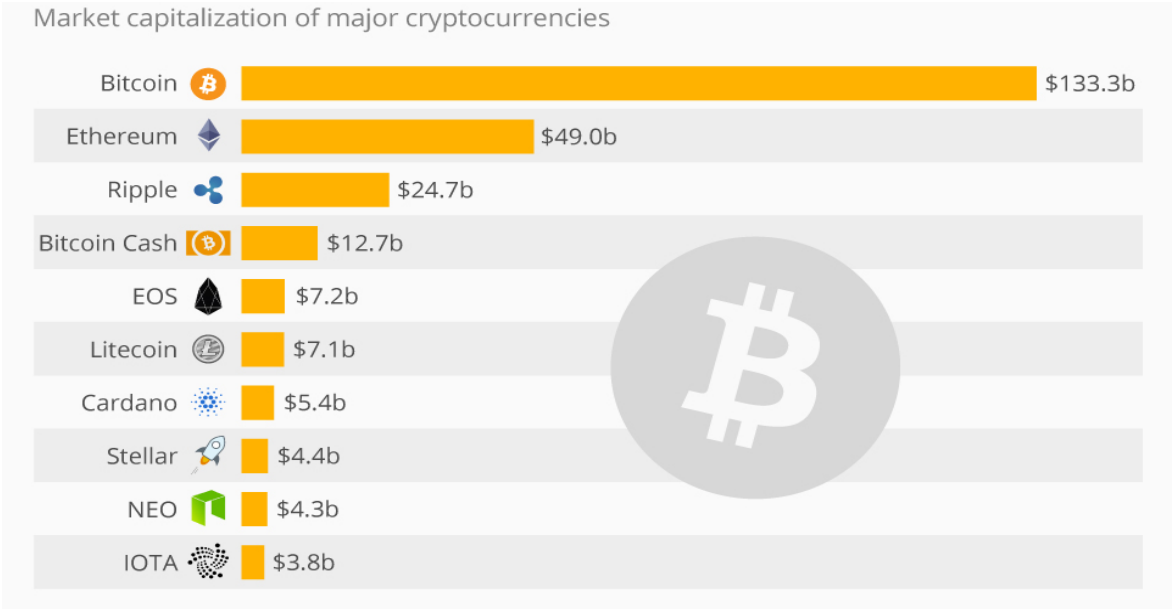
TITLE: TOP TEN CRYPTOCURRENCIES,



GRAPH NO.- 5, SOURCE- https://www.statista.com/chart/13520/the-top-ten-cryptocurrencies/[8]

CRYPTO WALLETS:

A crypto wallet is used to store and use the cryptocurrencies which is stored in the wallet. Multiple public keys exist in wallets. This means that the user can share many public keys, each of which can be used to receive cryptocurrency. The crypto wallet's security relies heavily on the private keys. Only the digital asset stored in that wallet can be accessed and used by the person who possesses the private key. There are two kinds of crypto wallets:

1) Hot Wallets - These are crypto wallets that are simple to use because they are either applications for mobile devices or websites for desktop computers. Hot wallets are necessary to utilise it on a daily basis for purchasing or trading. Some examples of HOT WALLETS are:

- EDGE
- COINBASE
- METAMASK

2) Cold Wallets - These are crypto wallets that are more secure than hot wallets because they do not require an internet connection and are less vulnerable to cyber-attacks. Cold wallets are used to store significant amounts of cryptocurrency. Some examples of COLD WALLETS are:

- TREZOR
- PAPER WALLETS
- KEEPKEY

[8] https://www.statista.com/chart/13520/the-top-ten-cryptocurrencies/

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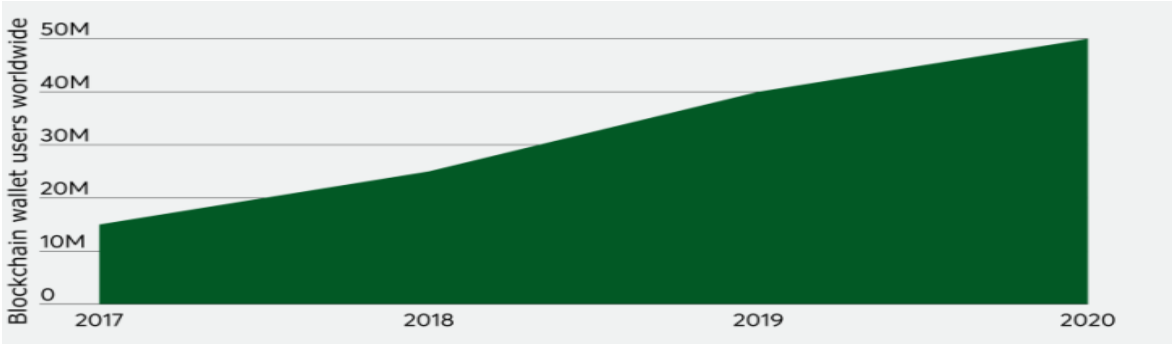
TITLE: RISE IN CRYPTO WALLET USERS,



GRAPH NO.-5, SOURCE: https://dailyfintech.com/2020/08/31/crypto-built-on-top-crypto-wallets/[9]

ADVANTAGES OF CRYPTOCURRENCY:

- Without the use of a third party such as credit/debit cards or banks, transfer of funds between two parties will be simple.
- Compared to other online transactions, it is a less expensive option.
- Payments are safe and secure, with a level of privacy that is unrivalled.
- Modern cryptocurrency systems have a user "wallet" or account address that can only be accessed with a public key and a pirate key. Only the wallet's holder possesses the private key.
- Financial transactions are processed with low processing fees.

LIMITATIONS OF CRYPTOCURRENCY:

- Because of their almost impenetrable nature, cryptocurrency transactions are ripe for criminal activities such as money laundering, tax evasion, and maybe even terror financing.
- Payments aren't made in a way that they can't be reversed.
- Cryptocurrencies are not widely accepted and have limited value in other places.
- Cryptocurrencies need a lot of energy to mine because they can't be mined on regular computers. As an outcome, it has an effect on the planet.

RESEARCH METHODOLOGY:

According to Kervin, "The research process involves identifying a management problem or opportunity; translating that problem or opportunity into a research problem; and collecting, analyzing, and reporting the information specified in the research problem". In this study the research is prepared systematically, well planned and organized, from the process of setting the objectives to evaluate the findings and giving suggestions to the audience. The design of the research used in this study is pure research. It is also called as Fundamental research. Only secondary data is used for this research. "Secondary data means data that are already available i.e., they refer to the data which have already been collected and analyzed by someone else". The secondary data is composed from various sources like the websites, Internet data base, international and national journals in the field of Financial Technology, magazines, Books, monographs, text books in the field of finance specifically related with the latest trends in technology of Finance.

OBJECTIVES OF THE STUDY:

1. To see the gaining popularity of fintech in general.
2. To present a brief information about blockchain technology.
3. To illustrate the concept of cryptocurrency.
4. To comprehend the impact of cryptocurrency on financial sectors.
5. To know the influence of fintech on financial advancement and the nature of the economy.

[9] https://dailyfintech.com/2020/08/31/crypto-built-on-top-crypto-wallets/

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FINDINGS OF THE STUDY:

- From the study it is evident that there is significant growth in global fintech revenue. It is observed that from 2018 to 2022 there is no fluctuation in the cashflow of cosmopolitan, pertaining to FinTech, according to Graph No.1
- The research symbolizes, the percentage of acceptance of fintech in different countries in various financial sectors shown in Figure No.1
- From the insights given in Graph No.2, it is analysed and evaluated that how widely the blockchain technology is expanded throughout various sectors i.e., banking, retail, professional services and many others.
- The statistical data derived proves that the number of people using cryptocurrency has drastically increased without any downfall from the year 2016-2021 in Graph No.4
- The overview of market capitalisation of types of cryptocurrencies is represented in Graph No.5
- From the information mentioned in the study, we can observe the rise in number of blockchain wallet users worldwide, denoted in Graph No.6
- Blockchain is a decentralised method that does not require a third party to initiate or confirm transactions. Because there is no middleman, the price is lower.
- Records on the block - chain is difficult to manipulate, encrypted, legitimate, and accurate. To guarantee the security of network access and the privacy of an individual's transactions, blockchains can use both a public key and a private key system. This signifies that security is at the top of the blockchain's priority list.
- Miners are essential to blockchain technology because they are the ones who verify whether or not transactions are genuine. Miners will be rewarded for completing the proof of work by solving puzzles and confirming transactions.
- Many analysts believe that the global cryptocurrency industry will be treble by 2030, as a result of our research.

SUGGESTIONS:

Fintech is playing an increasingly essential role in the development of the FINANCIAL SECTORS, as it could be witnessed,

- Fintech legislative requirements must be completed as soon as humanly possible.
- As a result, rules and regulations for the Fintech ecosystem must be established.
- The legal corridor to facilitate Fintech services and products should also be put to action.
- Policies on tax exemption and reduction, policies to encourage access to capital sources etc are also to be executed.
- Schemes to create a favourable climate for Fintech investment should all be implemented.
- It is crucial to encourage research and deployment of the benefits of block-chain and distributed ledger technologies for rapid utilization in finance, banking, and other industries.

LIMITATIONS OF THE STUDY:

There is always a suspicion that any research that relies on qualitative information and data has its own limitation. Only secondary data has been used for the research.

CONCLUSION:

There is a significant growth in global fin-tech revenue consistently every year. It is observed that from 2018 to 2022 there is no fluctuation in the cash-flow of cosmopolitan. The research symbolizes, the percentage of acceptance of fintech in different countries in various financial sectors from the insights it is analyzed and evaluated that how widely the block-chain technology is expanded throughout various sectors i.e., banking, retail, professional services and many others. The number of people using crypto currency has drastically increased without any downfall from the year 2016-2021 we can observe the rise in number of block-chain wallet users worldwide. Block-chain is a decentralized method that does not require a third party to initiate or confirm transactions. Because there is no middleman, the price is lower. Records on the block - chain is difficult to manipulate, encrypted, legitimate, and accurate. To guarantee the security of network access and the privacy of an individual's transactions, block-chains can use both a public key and a private key system. This signifies that security is at the top of the block-chain's priority list. This study believes that the global cryptocurrency industry will be treble by 2030.