**“THE IMPACT OF CRYPTOCURRENCIES THROUGH BLOCKCHAIN TECHNOLOGY ON THE FUTURE OF BUSINESSES"**

Project Report Submitted to Mount Carmel College, Autonomous

In Partial Fulfillment of the Requirements of the

Bachelor of Business Administration Course.

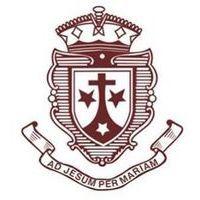
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**STUDENT DECLARATION**

I hereby declare that the dissertation work entitled **"THE IMPACT OF CRYPTOCURRENCIES THROUGH BLOCKCHAIN TECHNOLOGY ON THE FUTURE OF BUSINESSES",** is a record of independent study carried out by me under the guidance of **Prof**. **SUMITA KUMAR, Dept. of Business Studies, Mount Carmel College, Autonomous, Bengaluru.** This dissertation has not formed the basis for the award previously of any Degree/ Diploma, or any other similar titles of any university.

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# CERTIFICATE BY THE GUIDE

This is to Certify that the project Entitled “**THE IMPACT OF CRYPTOCURRENCIES THROUGH BLOCKCHAIN TECHNOLOGY ON THE FUTURE OF BUSINESSES” ,** is a bonafide research work carried out by **Ms.DEEKSHA FADNIS REG NO : MB162609** under my guidance. This dissertation has not formed the basis for the award previously of any Degree/ Diploma, or any other similar titles of any university.

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**ABSTRACT**

The intellection of world currency and requirement for changes in the way business are to be carried out, has been going around for a while now; the fact that this: cryptocurrency is not centralized or regulated and involves complex mining process has laid the first stone for new kinds of transactions which are stored in an open ledger called a blockchain.  
The fact that one day the value of say Bitcoins are just 1000$ and rise to 100,000$ the next day has got me intrigued into finding out the purpose of this volatile means of exchange and how it has the disruptive nature to change the world of business.  
This research was a motivation is to find out whether cryptocurrency will be the future of transactions and new money and whether the businesses will transition to the use of the cryptocurrency through blockchain tech or is its use a thornhill toward more scams, crimes and destruction.

**CHAPTER 1**

**INTERODUCTION**

**1.1 INTRODUCTION TO FINANCE**

Finance is an encyclopedic term that describes two related activities: the study of

how money is managed and the actual process of acquiring needed funds for

various purposes. It constitutes the oversight, creation and understanding of

money, banking, credit, investments, assets and liabilities that make up financial

systems.

**1.2 AIMS OF FINANCE**

**1. Rise in profits:**

A firm’s eventual plan is to make profits and in order to achieve this goal, the cost must equate to the revenues. For this purpose increase of sales volume, i.e. the economies of scale and other activities can be adopted.

**2. Reduction in cost:**

Capital structure that includes debt and equity is from where the business and its production/processes are funded. All efforts must be directed into reduction of cost and enhancing efficiency to obtain maximum value at minimal costs.

**4. Reduce risks:**

There won’t be profits without risk. But for this reason if more risk is taken, it may become danger to the existence of the firm. Risks must be taken with appropriate calculation and by weighing the outcomes of each risk.

**5. Long run value:**

In the pursuit to make profits quickly, firms become irresponsible in providing and creating value for its customers in terms of service/product it’s offering by compromising on the quality, neglecting consumer interests and the like. It may seem like a fruitful plan but in the long run, the company is bound to go into loses.

**1.3 FINANCE FUNCTION**

Finance is the pumping heart of a business without it things wouldn’t run sleekly. It is the source to run any organization, it provides the money, and it acquires the money.

**1. Required Everywhere:** All activities, be it, marketing, human resource development, purchases, production, research and development depend on the adequate and timely availability of finance both for commencement and their smooth continuation including expansion and diversification plans.

**2. Efficient Utilization:** The most important aspect of finance function is the ability to effectively utilize its funds. There are always excess of costs and plans that need money but limited funds to finance all, hence the most important function is to analyze the risk factors and evaluate which project will yield maximum value to the firm and effectively utilize the limited funds to achieve the goals set by the plan.

**We can classify the finance functions or financial decisions into the following**

**groups:**

1. Investment Decision or Long-term Asset mix decision

2. Finance Decision or Capital mix decision

3. Dividend Decision or Profit allocation decision

**1) Investment decision:** It refers to the selection of the assets in which investment

is to be made by the company. Investment can be made in Long term fixed assets and short term current assets. This is where the finance manager decides where to put the company funds. Investment decisions comprises of management of working capital, capital budgeting decisions, capital mix decisions(debt and equity),management of mergers, buying or leasing of assets for production and the like. Investment decisions should be made keeping in mind the best for the company.

**Investment decision is divided in two parts:**

**(a) Long term Investment decisions:** It refers to the investment in long term fixed assets. Such decisions evaluate and predict the firm’s growth, it necessitates huge fund to be blocked for a long period. These decisions are irreversible in nature; they should be taken carefully after making a comparative study of various alternatives available.

**(b) Short term Investment decision (Working capital decision):** It refers to

investment in short term assets such as cash, inventory, debtors etc. A business

needs assets that can be quickly converted into cash to meet its day to day

demands. This is where the financial manager must assess the day to day

requirements of running the business and design appropriate channels to obtain

funds.

**2. Financing Decision:** There are various sources of obtaining long term finance

such as equity shares, preference shares, term loans, debentures etc. For taking

financing decision and deciding the capital structure various factors are to be

considered and an analysis of cost and benefit is made. The right capital mix must

be adopted to suit the needs of business. The ultimate objective of the financing

decision is to achieve an optimal mix of debt and equity, this ratio helps in

assessing the leverage of the company. Financial decision differs between every

industry and every business, keeping in mind the future of the industry and

objectives of a business, the decision must be made. However, in the modern times

the concept of venture capital and angel investments have allowed financial

managers to design a plan and attract these sources to fund projects with zero or minimal costs.

**While making this decision however, a number of factors must be considered:**

**a.**The Risk involved in raising the funds. The risk is higher in the case of debt as compared to the equity because the debt is availed from financial institutions and must be mandatorily paid back with interest. Finance manager ideally must under promise keeping risks involved and over deliver, the goal that must be achieved must be break even. The Cost involved in raising the funds, the interest rates and taxes to be paid all come under this. The finance department of any firm before making a decision on the capital mix must assess the cost of adopting that mix and the liabilities taken upon in the process of adopting them.

**b**. The Level of Control, any shareholder of a company emphasizes onborrowed to ensure that there is no dilution of holding and voting power of the shareholders. The shareholders’ flexibility on control also majorly influences the capital structure decision of a business. The Cash Flow from the operations of the business also determines the source from where the funds shall be raised. High cash flow enables to borrow debt as interest can be easily paid.

**c**. A number of techniques profitable to the company in terms of cash flow must be adopted, for example collection of bills receivable timely or on the date of due keeps the cash flow intact.

**d**. The Floatation Cost such as broker’s commission, underwriters’ fee, involved in raising the securities also determines the source of fund. Thus, securities with minimum cost must be chosen. The costs involved in raising equity or the expenses involved in issuing a prospectus for IPOs all these decisions must be taken into account while making decisions.

**3. Dividend Decision**

It refers to the decision related to the distribution of profit.

The finance manager has to decide as to how much amount of profit is to be

distributed as Dividend and how much to be retained in the business. If too much

retained earnings are maintained, it dissatisfies the shareholders as they receive

less dividend. Similarly if a liberal dividend policy is followed, though the

shareholders are satisfies, but the firm does not have enough reserve for future

growth, expression, meeting contingency hence, the appropriate balance must be

adopted in order to satisfy the shareholders and keep the company running.

**4.Liquidity Decision**

It is very important to maintain a liquidity position of a firm to avoid insolvency.

Firm’s profitability, liquidity and risk all are associated with the investment in

current assets. In order to maintain a tradeoff between profitability and liquidity it

is important to invest sufficient funds in current assets. But since current assets do

not earn anything for business therefore a proper calculation must be done before

investing in current assets.Current assets should properly be valued and disposed

of from time to time once they become non profitable. Currents assets must be

used in times of liquidity problems and times of insolvency.

**1.4 FINANCIAL SYSTEM**

The financial system plays the most portentous role in the economy by instigating

economic growth, influencing economic performance of the participants involved,

affecting economic success. This can be accomplished only with the existence of a

sound financial system, in which major actors i.e. the entities with funds transfer

those funds to actors who have even more exceptional ways to derive growth out

of those funds. As one party of the transaction may possess superior information than the other party, it can lead to the information asymmetry problem and inefficient allocation of financial resources. By overcoming the information asymmetry problem the financial system facilitates balance between those with funds to invest and those needing funds.

**1.5 ROLE OF FINANCIAL SYSTEM IN THE ECONOMY**

**1. Savings-investment relationship**

To attain economic development, a country needs more investment and production. This is possible only if there are proper facilities set up. These facilities and in terms of finance, financial institutions like banks pump into productive resources in the form of investment. The financial institutions induce the public to save by offering attractive interest rates. These savings are forwarded and channelized into business across various industries that are active in production and distribution.

**2. Financial system helps in Infrastructure and Growth**

Economic development of any country depends on the infrastructure facility

available in the country, like coal, steal, etc it is here that the financial services

come into the picture and play a crucial role by providing funds for the growth of

infrastructure industries. With the policy of economic liberalization, more private

sector industries have come forward to start infrastructure industry. The merchant

banks and development banks assist these industries in setting up infrastructure,

and also cater to the exact needs of the industries by providing expertise.

**3. Employment Generation**

Having sound financial systems and proper lending techniques adds to a rapid

growth in entrepreneurship which in turn increases the rate of production and

increased activity, as a result of which there in employment generation.

**4. Finance helps in fiscal discipline and control of the economy**

Idle savings increases the inflation as they are not invested anywhere however with

increased financial systems, congenial business atmosphere for business can be

maintained where there isn’t too much inflation or depression in the economy.

**5. Financial system helps in Uniform interest rates**

The financial system is capable of bringing a uniform interest rate throughout the

country by which there will be balanced movement of funds between centers

which will ensure availability of capital for all kinds of industries.

**1.6 IMPORTANCE OF FINANCE IN TODAY’S WORLD**

The world is becoming complex day by day. Economic growth rates vary widely

from country to country, as do consumer preferences, competitive landscapes,

regulatory regimes and infrastructure maturity. The societal benefits of knowing

how to manage finances are extraordinary. Finance makes the consumer more

aware of his purchasing power and allows him to explore avenues to employ his

idle into profitability.

Finance can be divided into two parts:

1. Personal Finance

2. Business Finance

**Personal Finance:** In a world where impulsive buying prevails and where

the latest technology or a service/product costs a magnum, personal finance

loses its importance among the masses. Money is earned to spend and

acquire more liabilities rather than to save and invest in assets that maximize

the wealth/ earnings and eventually the economy. Therefore personal finance

becomes extremely crucial. If you want to buy a car or a house finance

provides you with the best options available to you for your money and

ensures maximum value for your money.

**Business Finance:** In order to start selling one must produce and to produce,

one must obtain funds. To start even a hot dog stall, capital is required to

raise that capital different sources are available but which source to use and

the cost of the source becomes equally important. Without finances and a

proper well put plan business tend to fail, around 66% small business fail

every year due to lack of planning and due to unavailability of required

working capital and unequal cash flow. Therefore, to run a successful

business and achieve its mission and vision the right kind of finance plan

must be employed keeping in mind the changing environment in which the

organization operates and constantly having contingency plans against

market crashes, political instability, inflation, no availability of resources,

etc.

**1.7 FINANCIAL MARKETS**

Generally speaking, there is no specific place or location to indicate a financial

market, wherever a financial transaction takes place, it is deemed to have taken

place in a ‘financial market’. However, a financial market is a place where,

investors trade securities and derivatives like options and futures at low transaction

costs. They can be referred to as those centers and arrangements which facilitate

buying and selling of financial assets, claims and services i.e. is the stock exchange

market.

Financial markets provide the following three major economic functions

**1. Price discovery function:**  Means that transaction and interactions between

buyers and sellers of financial instruments in a financial market determine

the price of the traded asset. At the same time the required return from the

investment of funds is determined by the participants in a financial market.

The motivation for those seeking funds (deficit units) depends on the

required return that investors demand. It is these functions of financial

markets that signal how the funds available from those who want to lend or

invest funds will be allocated among those needing funds and raise those

funds by issuing financial instruments. It depends on the sensitivity, bullish

or bearish that determines the price of the securities.

**2. Liquidity function:** It provides a platform for investors to sell their financial

asset or instrument at fair market value at any given time. Liquidity provides

the holder of financial instrument to sell it to realize cash and will not

enforce an obligation to hold until a situation arises to liquidate it or pay it

off. All financial markets provide some kind of liquidity but each financial

instrument have different features depending upon the markets they’re traded in and with different maturity dates.

**3. The function of reduction:**  This transaction costs is performed, when

financial market participants are charged and/or bear the costs of trading a

financial instrument. In market economies the economic rationale for the

existence of institutions and instruments is related to transaction costs, thus

the surviving institutions and instruments are those that have the lowest transaction costs

**1.8 TYPES OF FINANCIAL MARKETS**

**1. Capital Markets:** These markets make available funds from sources that

have surplus of funds to those who are in need of funds. It consists of users

and suppliers of finance. It can be divided further into primary markets and

secondary markets. Primary markets or new issues markets are those where

new financial claims are published for the first time to the public. Secondary

markets are where securities that have already passed the initial offering

phase, are traded, these securities are quoted in the stock exchanges.

**2. Money Market:** A money market is a portion of the financial market that

trades highly liquid and short-term maturities. The intention of the money

market is for short-term borrowing and lending of securities with a maturity

typically less than one year. This financial market trades certificates of

deposit, bankers’ acceptances, certain bills, notes and commercial paper.

Money market is considered a safe place to invest due to its high liquidity.

**3. Over-the-Counter Market:** The over-the-counter (OTC) market is an

example of a secondary market. An OTC market handles the exchanging of

public stocks not listed on the stock exchange, Companies with stocks

trading on the OTC market are usually smaller organizations, as this

financial market requires less regulation and is less expensive to be traded

on. These stocks are traded via dealers or middlemen as opposed to on a

centralized exchange.

**4. Derivatives Market:** The derivatives market is a financial market that

trades securities that derive its value from its underlying asset. The value of

a derivative contract is determined by the market price of the underlying

item. This financial market trades derivatives including forward contracts,

futures, options, swaps and contracts-for-difference. For example, gold. The

general practice is to use derivatives as a risk management tool that allows

an investor to transfer the risks attached with the underlying asset to the

party who is willing to take.

**5. Mortgages Market :** It refers to those centers which supply mortgage loan

mainly to individual customers. A mortgage loan is a loan against

immovable property like real estate. These kinds of collateral are given in

order to obtain a loan and a fixed interest is paid. Mortgages market has both

primary and secondary markets. The primary market consists of original

extension of credit and secondary market has sales and resale of existing

mortgages at prevailing price.

**6. Forex Market :**This financial market is the most liquid market in the

world, as cash is the most liquid of assets. The forex market is a financial

market where currencies, foreign exchange transactions are traded and

converted. It includes the central bank of each country and treasury

authorities that control this market.

**7. Futures Market:** Is a market where futures or future contracts, commodities

or financial instruments are bought and sold. The commodities are sold and

bought upon a agreed price and a contract is signed that is legal in nature,

the parties to the contact buy or sell it upon the already agreed terms on the

contract this is done so as to avoid the volatile nature of the markets.

**1.9 FINANCIAL MANAGEMENT**

According to Dr. S. N. Maheshwari,

“Financial management is concerned with raising financial resources and their

effective utilization towards achieving the organizational goals”

According to Richard A. Brealey,

“Financial management is the process of putting the available funds to the best

advantage from the long term point of view of business objectives”

According to Guthman and Dougal, financial management means,

“The activity concerned with the planning, raising, controlling and administering

of funds used in the business.”

Financial management as stated by the above definitions is the proper and

resourceful utilization of finance in the context of running a business, by applying

general management rules of planning, organizing, directing and controlling and nowadays technology to the financial resources of the enterprise. Like how an engine needs a fuel to run, the same way, effective financial management observes the need for the fuel in various components and the time when it is required and pumps in fuel in order to keep the engine going.

The most accurate and brilliant of plans might go to a toss in the absence of a strong financial management tool or action. It is concerned with the

collection of funds at the right time and from the right source and utilize the same

in a fruitful manner.

**1.10 SCOPE OF FINANCIAL MANAGEMENT**

Financial management is concerned with optimum utilization of resources.

Resources are limited, particularly in developing countries like India. So, the focus,

everywhere, is to take maximum benefit, in the form of output, from the limited

inputs. Being efficient in this ever changing world is necessary for sustainability and growth.

Financial management is necessary in every type of organisation, be it public or

private sector. WItch the onset of technology and Artificial Intelligence, the the definition of financial management is changing everyday.

**According to Dr. S. C. Saxena, the scope of financial management includes the**

**following five :**

**1. Anticipation :** Financial management estimates the financial needs of the

company. That is, it finds out how much finance is required by the company.

**2. Acquisition :** It collects finance for the company from different sources.

**3. Allocation :** It uses this collected finance to purchase fixed and current assets

for the company.

**4. Appropriation :** It divides the company’s profits among the shareholders,

debenture holders, etc. It keeps a part of the profits as reserves.

**5. Assessment :** It also controls all the financial activities of the company.

Financial management is the most important functional area of management. All

other functional areas such as production management, marketing management,

personnel management, etc. depend on financial management. Efficient financial

management is required for survival, growth and success of the company or firm.

**1.11 OBJECTIVES OF FINANCIAL MANAGEMENT**

1. To ensure safety of funds by creating reserves, reinvesting profits, etc.

(minimization of risk).

2. To ensure effective utilization of funds (financial control).

3. To minimize cost of capital by developing a sound and economical

combination of corporate securities (economy).

4. To ensure adequate return on investment (profitability).

5. To ensure availability of sufficient funds at reasonable cost (liquidity).

6. To ensure adequate return on investment (profitability).

7. To generate and build-up surplus for expansion and growth (growth).

8. To coordinate the activities of the finance department with the activities of

other departments of the firm (cooperation).

**CHAPTER 2**

**FUTURE OF FINANCE**

**2.0 INTRODUCTION**

Automation and Artificial intelligence is the most disruptive wave in the field of business and especially finance.  With the advent of technology and it changing every day, the major strategic leads and the financial team leads of financial advisory and audit companies like KPMG believe that the future CFOs must not only have a sound financial intelligence but also must be highly capable strategists who can see the gaps and fit in the new technology with the workforce. They must take caution and a difficult job of integrating technology and AI into their businesses and flow it through the end. The financial specialists are of the opinion that the technology will completely change the business partnership support. It is important that businesses must have a fine crossover between them and technology. The to do list of CFOs must include them identifying the changing technology and fit them appropriately to the businesses in order to sustain.

**2.1 FINTECH**

This concept has been going around for a while, it is a cusp of finance and technology and how technology in the near future is going to aid many financial processes without losing the essence of the financial principles. Currently the world is in the third wave of fintech where many companies and businesses are adopting and changing technologies in a rapid way to produce efficiency in all the financial processes,banks are looking at AI and blockchain to aid transactions and processes. The concept of digital currencies are allowing the way trades are made in the market with the help of digital wallets and the concept of decentralized, peer-to-peer, networking, the financial crimes also have a chance of reducing.

**2.2 THE MAJOR FOUR TRENDS IN FINANCIAL SECTOR**

1.The creation and popularization of digital banks which solely operate online, as digibanks that allow transactions to take place online without having to wait in queues at the traditional banks. It allows people to manage money and gives them debit cards.

2. The ability of technology to automate financial jargons and make it user friendly and also add to the knowledge of finance in simple terms allows it to save time and becomes convenient

3. The financial markets are always on the verge of risk of crashes, and the main reason why this happens is due to lack of information to MSMEs and other consumers. To make better use of the money, open banking collutes all these problems and makes information available for better use of money

4. It’s easier to build something from the start than correct traditional ways, the finance world must see themselves as innovators.

**2.3 FUTURE OF CRYPTOCURRENCIES**

According to the report from the consulting firm Greenwich Associates, as and when regulatory bodies and laws build around blockchain and cryptocurrency, round 141 investment institutes and over 70% professionals believe that cryptos are here to stay.

**2.4 INTRODUCTION TO CRYPTOCURRENCY**

The discussion about the future of finance is pointless without mentioning the digital currencies: Cryptocurrencies. First introduced in 2008 by pseudonymous developer Satoshi Nakamoto, these digital currencies have concocted a raging investment desire and procreated the idea of a sort of currency untouched by human hands. Cryptocurrency  uses an encryption (cryptography) to generate money and to verify transactions. Transactions are added to a public ledger – also called as a [Blockchain](https://cryptocurrencyfacts.com/what-is-a-blockchain/) – and new coins are created through a process known as mining which ultimately results in cracking down blocks and validating all the transactions that a block contains.

The main reason for the birth of cryptocurrency is its nature of decentralization, the sole purpose of not involving or deleting the necessities of the work facilitated by middlemen or financial institutions like banks and maintaining all the transactions made, peer-to-peer, on a public ledger that occur in the blockchain network.

The never ending problems of hyperinflation in the third world countries also have contributed towards the adoption of blockchain tech to aid men and women out of cyclical problems of poverty and incorporate them equally into the ever changing and rising global economy and businesses within.

The other side also asserts upon the fact that the concept of digital currency however does not comply with the traditional definition of what ‘money’ is, since it cannot correlate to the functions performed by the currently existing fiat that is: means of exchange, unit of account and deposit value. High volatility nature of this currency has contributed towards validating their interpretation as only invested in for its speculative characteristics.

In either of the cases briefly cited above, the cryptos are very much incipient and have a long way to go. They have the power to either make or break the future of trade in the increasingly digitized transaction culture adoption in the society.

**CHAPTER 3**

**REVIEW OF LITERATURE**

**REVIEW OF LITERATURE**

**3.0 What is Review of literature?**

Review of literature is the description of the already existing knowledge about the matter/topic and a descriptive significant, similar findings of the related topic. It allows the researcher to know what already exists and how the already done studies will help him/her out with the research.

**3. 1 LITERATURE REVIEW PART 1**

**1. An Analysis of the Cryptocurrency Industry by Ryan Farell, University of Pennsylvania 2015**[2]

This paper sheds light on the way blockchain technology and cryptocurrency works, the usual Proof of Work and Proof of Stake statements that affects the fintech market. The researcher has found that, the industry, even after going through a lot of regulatory issues and scams still is managing to grow out of it volatility and privacy issues and new coins and currencies are being added day by day onto the market. This paper seeks to provide a concise yet comprehensive analysis of the cryptocurrency industry with particular analysis of Bitcoin, the first decentralized cryptocurrency. The paper describes the factors affecting the growth of  the market and the impact these factors have on the functioning of the market. It also highlight a major fact that the FINCEN’s early attempts to clarify cryptocurrencies’ place in the financial market came in 2013 with its announcement that while individual use of virtual currencies is not to be considered a money service business (MSB), exchanges and conversion of virtual currencies do fall under the definition of a money service business[11] The paper further goes on to say how different governments have contrasting view on the emergence of cryptocurrencies with Russia being skeptical about money laundering issues on one side and on the other is Canada, this country is perhaps has the most cohesive and developed system of regulation, being the first country in the world to establish a tax on virtual currencies. This taxation system seeks to minimize the risks most frequently associated with cryptocurrencies: money-laundering and terrorist-funding. Then comes the public consensus on the survival and growth of the market, irrespective of what merchants and traders believe in or accept the cryptocurrency market must be accepted by general public to authenticate its existence.

**2. The Stellar Consensus Protocol:A Federated Model for Internet-level Consensus by DAVID MAZIERES, Stellar Development Foundation [12]**

This paper hits the very core of my research in addressing the current financial infrastructure and the loopholes it contains with respect to high transaction costs and slow organic growth in the field of financial system with regards to its long closed processes and consensus system. It recognizes that the the financial structure must adopt a decentralize the the process of transactions all the while by retaining the privacy and the authentication of transactions. This paper presents federated Byzantine agreement (FBA), a model suitable for worldwide consensus. In FBA, each participant knows of others it considers important. It waits for the vast majority of those others to agree on any transaction before considering the transaction settled. In turn, those important participants do not agree to the transaction until the participant they consider important agree as well, and soon. Eventually, enough of the network accepts a transaction that it becomes infeasible for an attacker to roll it back. Only then do any participants consider the transaction settled. FBA’s consensus can ensure the integrity of a financial network. Its decentralized control can spur organic growth.This paper further presents the Stellar consensus protocol (SCP), a construction for FBA. SCP has applications beyond financial markets for ensuring organizations perform important functions honestly. Thus it reflects the module on Byzantine agreement to make financial transactions even more efficient and honest and faster.

**3. FINANCE IN DIGITAL AGE - WHITEPAPER REPORT BY DELOITTE[13]**

This paper creates a direct distinction between the fact that companies having more physical products rids them of being untouched by digital trends or forces which is wrong and in fact no matter how physical the product it the digital aid is necessary for survival and create stronger networks with clients and customers. According to this whitepaper, over 80% of investment banks have adopted blockchain technology and have started running pilot tests for the same in order to keep up with digitalization and have experienced lower transactions cost. $20 billion dollars alone could be saved by 2022 in banking sector alone with the revolving technology. With blockchain requiring a consensus to edit, it eliminates manipulation of ledger entries and makes transactions more real and untouched.

**4**. **LITION : The Blockchain Standard Infrastructure for Business[14]**

“Litecoin is a powerful, political and economical tool which anyone, anywhere can use without permission to transact with anyone else in the world and partake in a genuinely global economy.” Franklyn Richards - CEO Litecoin Haus.

This whitepaper published by one of the major cryptocurrencies, Litecoin, fulfills the most relevant review of literature and related work for this paper. It directly shoots the 2 problems that exist with current blockchain tech and the commercial adaptation of this tech with a single bullet. The fact that the scalability and legal issues of the tech does not make it easy for commercial use and also some currencies have loopholes with regards to privacy, deletion, openness, closeness of these coins. For example a recognizable crypto, IOTA can be commercially used but it lacks privacy and deletability that sets it back. Litecoin, to bring blockchains into mainstream use, as many commercial issues cannot necessarily be solved by innovative but inexperienced players, Lition has partnered up with SAP. The software giant SAP is the worldwide leader of business software with a market capitalization of $150bn, over >400mn users from their >400.000 customers and the power of >10.000 developers. Together with Lition’s IT mastermind knowledge and experience from the world’s first blockchain-based peer to peer energy trading application active on a mass market, The Lition/SAP blockchain is made specifically to be the blockchain standard infrastructure accepted by big industry players and used by any developer working on a dApp that serves a mainstream market in a legally-compliant way.

**5. SHOULD CRYPTOCURRENCIES BE INCLUDED IN THE PORTFOLIO OF INTERNATIONAL RESERVES HELD BY THE CENTRAL BANK OF BARBADOS? - WINSTON MOORE AND JEREMY STEPHEN[15]**

This paper discusses whether it is feasible to have cryptocurrencies to be included in the portfolio for international reserves. The government of Barbados, after witnessing the increase in the amount of Bitcoin transactions since 2009, is questioning whether it must maintain certain BTC assets to peg against the US dollars. The authors used two empherical tools for authenticating their paper : The counterfactual method:  a counterfactual exercise using historical performance of the various exchange rates (including Bitcoin) as well as a Monte Carlo forecasts of international reserves for the next 1, 2, 5 and 10 years using a relatively small portfolio composition of Bitcoin (0.01 percent). The counterfactual exercise suggests that had the Central Bank of Barbados held a relatively small proportion of its portfolio in Bitcoin between 2009 and 2015, the impact on reserve balance volatility (due to exchange rate variation) would not have been significantly different from that experienced due to other major currencies. In addition, the appreciation in the value of the Bitcoin portfolio (in US dollars) would have also generated a significant return for the Bank.The Monte Carlo forecasting exercise yields similar results. However, the paper notes that as the proportion of reserves held in Bitcoin rises, the volatility of reserves would also increase. Given that the proportion of transactions done by Barbadians in digital currency is not likely to exceed 10 percent of all transactions in the short run, it is therefore recommend that if Bitcoin is incorporated into the portfolio of foreign balances of the Central Bank of Barbados, that its share should be relatively small.

**PART 2**

**3.2 CRYPTOCURRENCY AND BLOCKCHAIN IN BUSINESSES**

* The discovery of this great evolutionary technology: Blockchain might just open a portal to a world with no fiat currency and allow transactions to happen peer-to-peer in a secure, faster and economical way. The use of this technology has been adopted in many third world countries to address the problems of poverty and hyperinflation and induce growth. The fact that cryptocurrencies function on this technology asserts the right direction of where this digitized money is headed.
* Cryptocurrencies have the potential to change the lives of some of the world’s poorest and most desperate people for the better. Cryptocurrency can improve lives by helping residents of developing countries participate in the global economy and escape from poverty and this is how it works: poverty, lack of jobs, hyperinflation, lack of capital, poor access to banks and financial institutions can be addressed by introducing these countries with user friendly blockchain technology like the one that is developing now, **Radix DLT** which in terms of blockchain technology, has unbound scalability, extremely minimal transaction fee that vanguards faster transactions and eliminates the problem of congested networks. There are now many entrepreneurs, economists, aid officials, and bankers who believe a combination: cryptocurrency and mobile phones, will give the world’s poor access to the global economy. There are a large percentage of unbanked individuals in the Asia-Pacific Region, which is now home to more than half of the world’s internet users; 54% of the world’s social media users, and 56% of all mobile social media users. Combining the two, the world can find faster solutions to improve and gain access to global economy.

**3.3 SCAMS IN CRYPTOCURRENCY**

* At the beginning of 2014, Mt Gox, a Bitcoin exchange based in Japan, was the largest Bitcoin exchange in the world, handling over 70% of all bitcoin transactions worldwide. By the end of February 2014, it was bankrupt.The victim of a massive hack, Mt. Gox [lost about 740,000 bitcoins](https://www.csmonitor.com/Business/Latest-News-Wires/2014/0225/Bitcoin-heist-darkens-Mt.-Gox-exchange-massive-theft-reported) (6% of all bitcoin in existence at the time), valued at the equivalent of €460 million at the time and over $3 billion at October 2017 prices. Extra $27 million went missing from the company’s bank accounts.  Although 200,000 bitcoins were eventually recovered, the remaining 650,000 have never been recovered. The investigation is still ongoing and the mt.Gox is under the protection of bankruptcy and insolvency.[7]
* Coincheck, a major cryptocurrency trading exchange in Tokyo, has been hacked into and has lost about 58 billion yen ($534 million) worth of virtual money[8]

**3.4 CRYPTOCURRENCY IN BUSINESSES**

**1.THE POWER TO ERADICATE POVERTY AND INCREASE ACCESSIBILITY TO ALL**[6]

According to the reports by Mpesa, more than $10 billion worth of money was deposited and withdrawn through the M-Pesa peer-to-peer (P2P) app in Kenya between July and September of 2016, *Mobile World Live*  -Pesa offered by Safari.com had 20.7 million users in Kenya alone last year.

A company called Micro Money claims to have made 40,000 loans to people in Myanmar (Burma), Cambodia, Thailand, Indonesia, and Sri Lanka through its blockchain-based system. The system includes a phone app that is available via Google Play.

MicroMoney’s goal is to make basic banking services like loans to available to the world’s 2.5 billion unbanked people.

Companies like MicroMoney and Nebeus hope to reach them, because many of those have mobile phones. [Nebeus](https://nebeus.com/) plans to offer cryptocurrency-backed loans to the unbanked.

Helping the unbanked can empower women; because around 55% of the world’s unbanked are women, without bank accounts, people cannot apply for loans, buy homes, save money, do business online, and receive government-benefits payments.

**2.EMPOWERING BUSINESS PEOPLE TO PROMOTE ENTREPRENEURSHIP** [6]

Another company trying to build on MPesa’s success is [BitPesa](https://www.bitpesa.co/); which is designed to help importers in Kenya, Nigeria, Tanzania, and Uganda receive payments from or send

BitPesa claims to have 6,000 users in more than 85 countries. It also claims those users have made over 17,000 transactions through its blockchain.

The hope is to encourage entrepreneurship by letting business people receive payments in multiple currencies. BitPesa is trying to remove one of the biggest obstacles to entrepreneurship in developing nations; lack of access to banks.

With this information in hand, the scope of digital currency and it’s use is looking toward a brighter future, the ultimate objective of decentralization will be achieved and the concept of crypto will lead towards a secured, more participative and a smaller world with mega integration.

**CHAPTER 4**

**RESEARCH DESIGN**

**RESEARCH DESIGN**

**4.0 INTRODUCTION TO RESEARCH DESIGN**

Research design is elaborated as compilation of techniques and methods chosen by a researcher to combine various components of research in a logical sequence so as to address the research problem. It constitutes the blueprint for collection, measurement and analysis of data. In a nutshell it as a guide to the researcher in giving a logical process to follow in order to come out with reliable and helpful results. The most important aspect of research design is to create minimum bias in data and increase trust on the collected and analyzed research information.

**4.1 KEY CHARACTERISTICS OF RESEARCH DESIGN**

**Neutrality:** The results projected in research design should be free from bias and neutral. Understand opinions about the final evaluated scores and conclusion from multiple individuals and consider those who agree with the derived results.

**Reliability:** The research must be done in such a way that every time a researcher goes back to it, it must yield the same results.

**Validity:** The research needs some sort of tool for its authentication and validation to prove its point/objective, there are innumerable statistical tools available, the researcher must carefully select and use one tool that will allow him to gauge the appropriate result and find a solution to his problem.

**Generalization:** The main aim of research is that is should be helpful to public and must be applicable to everyone and not just a niche or restricted number of people. Thus generalization is the key to publishing any research

**4.2 TYPES OF RESEARCH DESIGN:**

·         Descriptive

·         Correlation

·         Semi-experimental

·         Experimental

·         Review

**TITLE OF PROJECT**

**“THE IMPACT OF CRYPTOCURRENCIES THROUGH BLOCKCHAIN TECHNOLOGY ON THE FUTURE OF BUSINESSES”**

**4.3 STATEMENT OF RESEARCH PROBLEM**

Bitcoin built on blockchain technology was the most revolutionary thing that happened in technology and finance after the internet, it has allowed a new mode of transaction with regards to money or data, without involving a financial intermediary. As there are negatives to everything in proportion to the positives, this technology, has scalability and regulatory issues and is not widely accepted by the general public due to its speculative nature and volatility. However, many big financial companies are looking at the impact this technology could create in the finance world and save them bucks which go in for transaction processes and data sharing and how cryptocurrencies could settle transactions immediately, provides an objective for this research if whether at the end of the day, does this technology have potential or not.

**4.4 OBJECTIVES OF STUDY**

* To understand the decentralized concept of blockchain technology on which cryptocurrencies run
* The limitations of the technology or regulatory issues with regards to its adoption.
* To find out the feasibility of blockchain technology and its future in businesses.
* Attitude of people and businesses towards using cryptocurrency in the future.
* To find out what businesses think about the technology and whether they will adopt this in the future.

**4.5 SCOPE OF STUDY**

Cryptocurrency focuses on making the transactions digital; no involvement of human beings; elimination of middlemen to fiddle with hard earned money; the scope of this research is to allow people to realize the fast evolution the world is going under and to make them open to wider set options available to them in the form of digital currency and the use of its underlying technology. It is limited to a couple of firms and demographic in the Bangalore city, India.

**4.6 RESEARCH METHODOLOGY**

Descriptive method was opted to proceed with the research and satisfy objectives stated. This is applied to studies aimed at and gathering in depth knowledge regarding the topic chosen for study. Become more familiar with the topic and area of interest. My research aims at in-depth study about crypto currency and whether the said currency and the technology on which it operates, will replace the future of transactions and shift the paradigm of rethinking the whole way the businesses run and the impact of this on them.

**4.7 SOURCES OF DATA**

For the purpose of this study, both primary and secondary data are used. Primary sources provide fresh information, the current scenario of the relevance of the topic the secondary data is gathered from various sources that have already been published or available. Because the cryptocurrency industry is still young and factors that impact it are changing on a daily basis, few comprehensive or fully updated academic sources exist on the topic.

1. For the obtainment of primary data, surveys were prepared with 7 questions and this questionnaire was circulated through Google forms and the responses were recorded. White papers published by various experts were referred to, including various other research papers on blockchain technology.
2. Interviews were also conducted with the help of a questionnaire and it was conducted with individuals who are well equipped with the industry and work in the industry and own blockchain startups.

**4.8 SAMPLING TECHNIQUE**

1. For the research Probability Sampling was chosen under which Simple Random Sampling (SRS) was adopted. 101 responses were recorded from the questionnaires circulated from Google forms. Interviews with companies/businesses on their views about future of finance were also conducted, recorded and interpreted.  The characteristic of demographics being men and women between the age group of 20-29 and 29-30 in the city of Bengaluru, India.
2. Qualitative sampling was taken with respect to conducting interviews and extracting information from the industry experts.

**4.9 TOOLS FOR DATA COLLECTION**

* Questionnaires circulated through Google forms which allowed me to automatically record responses and eliminated the possibility of double sampling.
* Interviews were also conducted from companies that deal with blockchain technology and cryptocurrency and responses were recorded.

**4.10 LIMITATIONS OF STUDY**

* In case the cryptocurrencies are traded globally then lost, there are high chances of money going out of economy which cannot be recovered.
* Blockchain technology uses huge amount of electricity and as quoted by Vitalik Buterin, the consensus algorithm is one of the hardest problems in cryptocurrency development.
* To switch from the normal fiat currency to cryptocurrency will require for the shift in society’s paradigm of ‘money’
* Blockchains miss mainstream adoption, as they do not meet commercial requirements of corporates
* Accessibility also is a problem as found out by this study, 77.2% do not have means to trade in cryptocurrency with respect to Bangalore alone.
* Scalability issue has always been persistent in the blockchain technology. It sheds light upon the problem of the limited ability to process the transactions per block.
* Cryptocurrencies are approved and in favor the ideals of extreme capitalist economy which contains a risk of giving wealth to the wealthy.
* The interviews conducted are only on a couple of companies’ employees’ due to which my study may be biased
* The numbers on the exchange are quite impressive but solely as an appraisal index of the state of the market would present a false narrative, it has many flawed structural and adoption issues
* Regulatory issues and resistance in the chase for censorship rights derail the growth of such technologies

4.11 **OPERATIONAL DEFINITIONS**

1. **Blockchain** :  By allowing digital information to be distributed but not copied, blockchain technology created the backbone of a new type of internet. Originally devised for the [digital currency](http://blockgeeks.com/guides/what-is-cryptocurrency-everything-you-need-to-know-ultimate-guide/), [Bitcoin](http://blockgeeks.com/guides/how-to-buy-bitcoin/), the tech community is now finding other potential uses for the technology. Information held on a blockchain exists as a shared — and continually reconciled — database. This is a way of using the network that has obvious benefits. The blockchain database isn’t stored in any single location, meaning the records it keeps are truly public and easily verifiable. No centralized version of this information exists for a hacker to corrupt. Hosted by millions of computers simultaneously, its data is accessible to anyone on the internet.[1]
2. **Explanation of Proof of Work and Proof of Stake:** Now there are two things to be addressed, the process that goes behind the creation of cryptocurrency is called the **Proof-of-Work**, or PoW, is the original consensus algorithm in a Blockchain network. In [Blockchain](https://cointelegraph.com/tags/blockchain), this algorithm is used to confirm transactions and produce new blocks to the chain. With PoW, miners compete against each other to complete transactions on the network and get rewarded. A decentralized [ledger](https://cointelegraph.com/tags/ledger) gathers all the transactions into blocks. However, care should be taken to confirm the transactions and arrange blocks. This responsibility bears on special nodes called miners, and a process called mining. The main working principles are a complicated mathematical puzzle and a possibility to easily prove the solution[1]**.**
3. **Proof of Stake,** however is gaining momentum and will not in the least bit involve the taxable process of mining, in proof of stake, no currency is created, and the reason toward the shift to proof of stake is its economical advantage, that is; less consumption of electricity and a less expensive process, Proof of Stake (PoS) concept states that a person can mine or validate block transactions according to how many coins he or she holds. This means that the more for example, Bitcoin or altcoin owned by a miner, the more mining power he or she has. The creator of a new block is chosen in a pseudo-random way, depending on the user’s wealth, also defined as ‘stake’. In the proof of stake system, blocks are said to be ‘forged’ or ‘minted’, not mined.

Users who validate transactions and create new blocks in this system are referred to as forgers. In most proof of stake cases, digital currency units are created at the launch of the currency and their number is fixed. Therefore, rather than using cryptocurrency units as reward, the forgers receive transaction fees as rewards.[1]

1. **Decentralization:** This means that it removes the power of central authorities. It is a direct relation between two individuals or nodes without the involvement of a central authority.

1. **Consensus Protocol:** A consensus protocol is a set of rules that describe how the communication and transmission of data between electronic devices, such as nodes, works. Consensus is achieved when enough devices are in agreement about what is true and what should be recorded onto a blockchain. Therefore, consensus protocols are the governing rules that allow devices that are scattered across the world to factually come to an agreement, allowing a blockchain network to function without being corrupted.

**4.12 CHAPTER SCHEME**

**CHAPTER 1 – INTRODUCTION**

This chapter gives a theoretical view of what finance is- Meaning, Definition, Types and characteristics, financial markets

**CHAPTER 2 : FUTURE OF FINANCE**

This chapter gives the introduction to the future of finance, a brief about Fintech, Introduction to cryptocurrency and future of cryptocurrencies and blockchain.

**CHAPTER 3: REVIEW OF LITERATURE**

This chapter contains scholarly papers, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to the topic taken up including white papers published on the matter.

**CHAPTER 4 – RESEARCH DESIGN**

This chapter contains a brief write-up on the following components- introduction to research design, statement of problem, objectives of the study, scope of the study, methodology, sources of data, sampling design, tools for collection of data, plan of analysis, limitations of the study and operational definition of concepts.

**CHAPTER 5 – ANALYSIS, INTERPRETATION OF DATA AND INTERVIEWS**

This chapter is concerned with the analysis of the primary data in tune with its objectives.

Part 1 Each question is represented in a tabular form followed by a descriptive analysis of the data and its interpretation. The analysis is supported by graphs, charts and diagrams along with inference

Part 2 This includes analysis and conclusion of the interviews conducted

**CHAPTER 6: SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS**

Part 1 - Includes summary and findings of the first set of data analysis (questionnaire)

Part 2 - Includes summary and findings of the second set of data analysis(interview)

**CHAPTER 5**

**DATA ANALYSIS**

**DATA ANALYSIS**

**5.1 INTRODUCTION**

Data analysis is the analysis of the selected tool and the responses recorded through the tools are put through analysis. This part shows how much reliable the data is for the researcher’s topic and also highlights the relativity of the data collected pertaining to the research. It is the most crucial part of the research and allows the researcher to conclude his topic and come out with reliable findings.

In this paper the researcher has analyzed two sets of data for the purpose of interpretation. The first part includes the inferences and graphs of the questionnaire circulated and the second set includes interviews of people who are in the industry and know the future of this industry in businesses. Hence, it is necessary

**PART 1**

**1. Do you know what crypto currency is?**

**Table 1 - No of people aware of cryptocurrency**

|  |  |  |
| --- | --- | --- |
| **Options** | **Responses** | **Percentages** |
| **Yes** | 81 | 80.2 % |
| **No** | 20 | 19.8 % |
| **Total** | 101 | 100 % |

**Graph 1 -**

**INFERENCE –**

Out of a total of 101 responses 81 said that they know what Crypto currency is, while 20 respondents said they did not know Crypto currency is. 80.2% respondents are aware of the meaning of the word Crypto currency and 19.8% were not aware of its meaning.

**2**. **Do you understand Block-chain technology? Or at least have an idea about it?**

**Table 2 -**

|  |  |  |
| --- | --- | --- |
| **Options** | **Responses** | **Percentages** |
| **Yes** | 63 | 62.4% |
| **No** | 38 | 37.6% |
| **Total** | 101 | 100% |

**Graph 2 -**

**INFERENCE –**

63 responses out of 101 replied that they do understand Block chain technology or at least have an idea about it while 38 of them said they had no understand of block chain technology. 62.4% of respondents have an idea about Block chain technology while 37.6% do not have any idea about what block chain technology is.

**3. Do you have access to buy and sell or trade in Crypto assets?**

**Table 3 -**

|  |  |  |
| --- | --- | --- |
| **Options** | **Responses** | **Percentages** |
| **Yes** | 23 | 22.8% |
| **No** | 78 | 77.2% |
| **Total** | 101 | 100% |

**Graph 3 -**

**INFERENCE –**

23 respondents out of a 101 said that they do have access to buy, sell and trade in crypto currencies, while 78 respondents said that they do not have any access to crypto currencies. 22.8% of respondents have access to buy and sell or trade in crypto currencies, while 77.2% of respondents do not have access to buy and sell or trade in crypto currencies.

**4. Do you believe that Crypto currencies have the power to replace normal (fiat) currencies in the future?**

**Table 4 -**

|  |  |  |
| --- | --- | --- |
| **Options** | **Responses** | **Percentages** |
| **Yes** | 55 | 54.5% |
| **No** | 46 | 45.5% |
| **Total** | 101 | 100% |

**Graph 4 –**

**INFERENCE –**

Out of a total of 101 responses 55 said that they do believe that crypto currencies could replace normal currencies (fiat) in the future while 46 respondents said that they do not believe it could replace normal currencies in the future.

**5. Would you accept crypto currencies as a medium of exchange in the future?**

**Table 5 -**

|  |  |  |
| --- | --- | --- |
| **Options** | **Responses** | **Percentages** |
| **Yes** | 22 | 21.8% |
| **No** | 15 | 14.9% |
| **Maybe** | 64 | 63.4% |
| **Total** | 101 | 100% |

**Graph 5 –**

**INFERENCE –**

22 respondents said that they would accept crypto currency as a medium of exchange in the future, while 15 said they would not, 64 respondents out of 101 respondents said that they might accept crypto currency as an medium of exchange in the future. 21% of responses were favorable toward accepting crypto currency as a mode of payment in the future, while 14.9% reacted negatively towards its acceptance with the majority of 64.4% responses stating that they might accept is as a mode of payment in the future.

**6. Would you rather accept the concept of crypto currency for?**

* **Investment gains**
* **Trading**
* **Medium of exchange**

**Table 6 -**

|  |  |  |
| --- | --- | --- |
| **Options** | **Responses** | **Percentages** |
| **Investment gains** | 44 | 43.6% |
| **Trading** | 26 | 25.7% |
| **Medium of exchange** | 31 | 30.7% |
| **Total** | 101 | 100% |

**Graph 6 –**

**INFERENCE –**

44 respondents said they would use crypto currency for investment gains, 26 respondents said they would use their crypto currency for trading, and 31 respondents said they would use crypto currency as a medium of exchange out of a total of 101 responses. 43.6% of the respondents said they would use crypto currency for investment gains, 25.7% said they would use it for Trading and 30.7% said they would use it as a medium of exchange.

**7. Do you think businesses would find it convenient to use cryptocurrency for their trade and transaction purposes?**

* Yes
* No
* Depends on the rules and regulations

**Table 7**

|  |  |  |
| --- | --- | --- |
| **Options** | **Responses** | **Percentages** |
| Yes | 22 | 21.8% |
| No | 11 | 10.9% |
| Depends on the rules and regulations | 68 | 67.3% |
| Totoal | 101 | 100% |

**INFERENCE-** Out of total 101 responses 68 said that business will adopt crypto depending on the rules and regulations while 22 said they would while 11 are of the opinion that the businesses wouldn’t.

**SET 2**

**INTERVIEWS**

**INTERVIEW 1**

1. **THROUGHBIT TECHNOLOGIES**

**Company profile:**

ThroughBit is a Blockchain startup(bootstrapped) based out of Bangalore which has been  in business from the past 3 years. It is a platform where one can buy, sell, send, receive, and store and Bitcoin, Ether and INRFalcon(a smart contract that is built on ethereum platform and allows transactions of BTC and ETH at anytime and anywhere, all year around opposite to the bank, which has closing hours at zero fees. This company’s main aim is to ease of trade of cryptocurrency to a common man with minimum involvement with the bank channels. INRFalcon, a blockchain is built especially to suit indian customers whose value is akin to the rupee.

**Interviewee : Vishaal Menon, Backend node infrastructure and support ThroughBit, FinTech Industry**

**5th Answer** : The impact of Bitcoin on business can be broadly divided in two sections:

**1**. Outward: Business Environment (REQUIRES A PUBLIC BLOCKCHAIN like BITCOIN).The key benefit here is the implications of an Open Source payment channel.Current payment gateways run on a heavy backend, which requires multiple layers of authentication in order to stay secure.Being the payment gateway layer, we have the underlying banks which themselves have very heavy backends.Integrating these payment channels to your service is an added cost to a business. In addition, these centralized services have the power to censor transactions -  a case we have personally dealt with at ThroughBit with RazorPay, ICICI Bank, HDFC and Axis Bank.

1. ThroughBit Technologies - Bitcoin & Ether Fiat Exchange Gateway

2. FinTech

3. 3 Years

4. Backend: Node Infrastructure & Support

5. The impact of Bitcoin on business can be broadly divided in two sections:

1. Outward: Business Environment (REQUIRES A PUBLIC BLOCKCHAIN like BITCOIN).The key benefit here is the implications of an Open Source payment channel.Current payment gateways run on a heavy backend, which requires multiple layers of authentication in order to stay secure.Being the payment gateway layer, we have the underlying banks which themselves have very heavy backends.Integrating these payment channels to your service is an added cost to a business. In addition, these centralized services have the power to censor transactions -  a case we have personally dealt with at ThroughBit with RazorPay, ICICI Bank, HDFC and Axis Bank.

With an open source crytpo payment service such as BitPay-Sever:

     -integration costs are  zero (not including labour)

     -open for anyone to integrate

     -censorship resistant

     -access to a global payment network

     -a backend that is several orders of magnitude lower in friction, with reduced points of failure

**2.** Inward: Business Infrastructure (Can be implemented on either Public or Private chains: eg. Bitcoin Side-chains, Ethereum Smart Contracts, R3, Corda).The key word here is programmable money.Crypto-networks have given rise to a new form of organization - DAO.DAO is an abbreviation for Decentralized Autonomous Organization.

* Decentralized implies a decentralized management structure - giving more power to the employee.Autonomous implies automated processes.

**Following is an example of how a DAO could be structured:**

* Every employee within an organization will generate a key-pair for themselves: private key + public key.This key-pair implies two key features:

      - Represents your identity and account

      - Through an established identity, allows you to express your thoughts and opinions; verifiable that it is you!

Using their private-keys every individual within the organization will be able to view the logic behind all contracts, giving them security in the fact that they are trusting unstoppable code, and not the word of management.

1. **Automated Salary Dispersal:** A contract is created at the start of every financial year.The amount allocated for salaries is locked into this contract, giving employees the assurance that the business IS capable of paying them for the whole year.All employees public keys are fed to the contract alongside their salary amount.At the end of every month all employees are required to sign the contract, verifying that all their fellow employees (their pub-keys) have done the work.When all parties sign, the contract automatically makes payments to all the public keys that have been verified.

**b. Decision Making:** Business decisions at various levels can be supported by votes made by employees.These votes are immutable.Certain decisions like pushing code to a repository can be entirely reliant on digital signatures of key-personnel.

**c. Verification & Accountability (+Incentives):**Digital signatures existed long before Bitcoin, but Bitcoin made people care about it more.Since employees are now used to  working with private keys and signing transactions, the additional process of signing all sensitive documents before sending them to colleagues adds not security, but allow an organization to keep track of who has done what.On top of such a system, a variety of incentive systems can be built.

**d. Ease of Audit:**For a business functioning entirely on top of a cryptocurrency based ecosystem, auditing becomes far easier since we are dealing with programmable money.To my knowledge, banks do not provide individuals or businesses with an API to fetch transaction history.With programmable money, with a few scripts, business can keep track of and continuously audit their entire financial backend.These scripts can be coded once, and left to function autonomously, reducing a slew of costs related to auditing.Such a system really shines for organizations where most workers function from remote locations.In addition to all this, businesses can reach out to the entire network with their brilliant idea to raise venture capital through the DAO equivalent of an IPO - ICoinO.

**6th answer.**. Yes. Programmable/Cencorship resistant money is the future of commerce. Free-market economics has always been a concept in theory. This is the first time in history we are able to experience it in practice, now that we have a decentralized money system.

**7th answer**. While it is true that bitcoin is disrupting the financial services industry, it is also empowering many finance professionals.Engaging with these networks is the first step for any modern day financial professional.It is also important to remember that programmers have little to no knowledge about finance or economics, the union of these two professionals is key for any organization looking to integrate a crypto-network backend.

**Understanding Bitcoin at a high level, is the next step. This includes:**

* How keypairs are used to move coins between users.
* How to safely manage private keys.
* How a bitcoin transaction is represented.
* How to create a transaction.

**8th answer** Censorship resistance and the ability to opt for private transactions will allow businesses to transact more freely with greater security.

**ANALYSIS** **OF THE INTERVIEW 1.**

This interview highlights the major problems of the current operating systems in the payment channels and sheds light upon how the current channels can be made more efficient. Vishaal, explains how the bitcoin technology can impact businesses in the future inwards and outwards. The main problems that exist in outward business environment, is the heavy backend load and adding in various layers of authentication to secure payments is an added cost to a business, these businesses also have the the power to censor transactions which may prove detrimental to the trust the banks try to gain from the public. The interviewee then goes on to explain how beneficial open source crypto is in terms of less backend operations and failures and allows global scale payments at zero integration cost (no labour). The inward business environment struggles with a lot of bureaucracy it swallows time of management and employees that forces them to do manual work in terms of audit, management decisions, Vishaal stressed upon a concept of ‘programmable money’ and DAO(decentralized autonomous organisation) allows employees to have public and private keys and through this opinions can be put forth that is verifiable only to the said person. It can also create smart contracts for salary disposal at the beginning of the year and the money gets credited every month. Banks do not provide individuals or businesses with an API to fetch transaction history.For a business functioning entirely on top of a cryptocurrency based ecosystem, auditing becomes far easier since we are dealing with programmable money.These scripts can be coded once, and left to function autonomously, reducing a slew of costs related to auditing. Furthermore, he definitely believes that cryptocurrency is the future of businesses because, the bitcoin technology turns the theory of free economics into reality. He goes on to say that many blockchain developers and programmers have limited knowledge of finance and it is important for the integration of the two (emphasizing the most important concern that currently exists) for the future adoption of the technology.  The integration can be made easily without a hassle knowing the fact that the core financial principles will remain unchanged, layes built over bitcoin protocol and understand how payments work will revolutionize finance.

**CONCLUSION**

This disruptive technology has a way of reducing a lot of costs that businesses must pay for which does not come cheap, the web 3.0 allows the very same to save and make businesses more efficient. For someone with a background in finance, this is not all that complicated, infact the beauty is in its simplicity.Following this, the core principles of finance will still remain unchanged.Balance Sheets, P&L Statements etc, all still follow the same model and require Financial professionals.With this basic understanding of crypto-payments, true innovation and 2nd Layer solutions built on top of the base Bitcoin protocol will come from financial professionals and programmers working together.

**INTERVIEW 2**

**DUNYA LABS**

**Company profile**

Dunya Labs is a leading knowledge company building decentralized technologies in India - one of the largest adoption and software development ecosystems in the world. The company mainly focuses on how not only the decentralized blockchain tech must be adopted but scalable blockchain tech is a must for the web 3.0. Their vision is to expand the global community in order for mass blockchain adoption.Their two main focuses are dunya tools and dunya research. The dunya proprietary tool is a computational-resource management platform for dApp developers. The Dunya research realizes the importance of theoretical research for mass adoption of decentralization.

**INTERVIEWEE: GRACE GUO, HEAD OF OPERATIONS AND BUSINESS DEVELOPMENT. With reference to articles published by the CEO of Dunya Labs Cathy Guo on the economic times and yourstory.**

**ANALYSIS OF THE INTERVIEW 2**

         The ultimate aim of these articles is the fact that it gives a view of how one must be careful not to imagine the future “blockchain without cryptocurrencies” it does not harness the power and the capability of the technology. It shows how everyone is ready to embrace and are keen on blockchain technology without a native value, and that the blockchain technology is more than just decentralized databases. The technology should not be assumed to only be limited to support cryptocurrencies but to support crypto assets  tokens that represent access and participation in a decentralised application/ecosystem, tokens as a representative right to a dividend of an underlying asset’s cash flow, tokens as a right to vote for updates to a blockchain protocol, etc.

The future, according to Cathy is open trustless finance, the bitcoin through blockchain technology will find solutions to all problems the centralized institutions have i.e, barriers to entry, how many adults 2.5mil to be approximate have no access to financial institutions due to non availability of documents, poor infrastructure and expensive processes that does not allow them to be in synch with the global economy and second is the censorship resistance from governments that have the power to restrict money supply and lastly the counterparty risks that involve trust issues between the financial institutions and the customers.

These problems can be combated with Bitcoin.There are low barriers to entry for Bitcoin, i.e. no requirement for government-issued identity or credit score; you only need an internet connection on your smartphone. There is very little counterparty risk to Bitcoin, as there is no central party who can change the rules governing the money supply. Lastly, there is no censorship in Bitcoin - nobody can stop you from sending it anywhere. Hence the first widely proliferated Bitcoin use-case was remittances from controlled economies.By bootstrapping a digital currency to a set of rules, one can create open, trustless financial services that do not depend on any centralized party to issue, maintain or execute the underlying contract.

**CONCLUSION**

The ultimate future is to imagine blockchain with crypto assets and not just blockchain and also a open and trustless finance. Open and trustless finance allows anyone with a smartphone with internet connection to be a part of transactions and facilitate trade without censorship restrictions. One should evaluate the consequences of just adopting blockchain and not crypto assets. Governments, desperate to monitor cash outflows and foreign exchange are resistant and must put out rules in order to embrace tech with the assets for the better. It’s all about inclusivity and the right to know where our hard earned money goes once we submit our paychecks to the financial institutions by allowing transparency and decentralization to validate the process and create trust.

**INTERVIEW 3**

**ODDUP**

**Company analysis**: It is one of the most growing global companies that provides deep end analysis of all the haze in the current start up economy. They give detailed analysis and score of startups to the investors about the health and it’s potential. This function is spread out across 34 cities around the globe. Added to this, the firm also provides insights on ICOs (Initial Coin Offerings) and cryptocurrencies to give a simplified detail of its trends. Oddup is a tool used for financial analysis for partnership purposes and due diligence and give deep insights on the investment and startup ecosystems. This is one of a kind companies which gives a clear picture of all the startups traffic, the potential of the start ups and also, the ICO issues and the trends in market. Insights are the most important for any investor and is a necessity for businesses (due diligence) across various activities, oddup helps in giving a better picture of the same.

**INTERVIEWEE: JACKIE HINGORANI, Head of Global Sales, Oddup**

1. What is the name of your company and what is its purpose?

- Oddup and we are into the Market Due Diligence Domain. We do market due diligence on Startups, ICO's, Cryptocurrencies, Emerging technology sectors and Top Startup Locations

2. Which industry do you operate in?

- Startup Market Research Services

**3**. For how long has the company been in operation?

- 4 + years

**4**. What is your job role?

- Head of Global Sales

**5**. What do you believe is the future of Blockchain technology and the impact that it may have on the future of businesses?

- Blockchain is a great new technology that is set to revolutionize the internet industry. Infact the coming of Web 3.0 is going to be driven by this technology to a large extent as it brings forth transparency and accountability in a big way through its decentralized system.

**6**. Do you think cryptocurrency through blockchain tech is the future of financial services?

- Well it is not The Future but yes it will coexist with a lot of other currencies that we have now. Cryptocurrencies are still a far way off from being a major disruptor. Over the last 1 to 2 years lots of regulations have kicked in to monitor ICO's and Cryptocurrencies in order to protect retail investors. Once this has been handled thoroughly and we see lesser scams taking place then yes this could be one of the largest disruptors the financial services industry would have ever seen.

**7**. How can professionals, especially, in the field of finance, equip themselves in the changing business environment with the advent of the fintech concept?

- Do a course on Blockchain, understand how it operates, keep a constant track on the fintech ecosystem through media sites like [yourstory.com](http://yourstory.com), inc42, [Tracxn.com](http://tracxn.com)'s reports, Oddup's reports and reports published by the big 4 audit firms and the big 3 management consulting firms.

**8**. How do you think cryptocurrencies through blockchain technology will impact the way business transact and share data?

- Business transactions and data sharing happening through cryptocurrencies based on the distributed ledger technology will bring forth a greater level of transparency, onus, decentralization and accountability.

**ANALYSIS OF INTERVIEW 3**

This interview simplifies a lot that’s surrounding the future of finance, Jackie does not believe that the cryptocurrencies is the future but it has a great potential to co-exist with the existing currencies, it’s not one of the major disruptors due to its regulatory issues it’s facing with the ICOs and the markets. Once these issues are resolved, the cryptocurrencies have the chance to become major disruptors in the financial field. His advice on how financial professions must equip themselves is to take courses and keep a constant check on the fintech markets in order to survive. As I had mentioned previously, the future lies in CFOs not only need to perform financially centered duties but, must be strategic officers to implement and cope up with the changing needs of businesses and look at the bigger picture. The DLT( Distributed ledger technology) will allow greater transparency and decentralization in terms of data sharing.

**CONCLUSION**

It can be comprehended that this interview allowed us to think that fiat currency will always co-exist with cryptos, it’s hard to completely eradicate what already exists and is widely accepted, it is hard to completely shift the paradigm of thinking for this disruptor to change the way of life. But however, the web 3.0 is the next big thing after the internet and is a breakthrough in this world and definitely has potential to materialize more and a long way to go.

**INTERVIEW 4**

**PRASHANT BALANI- Private consultant, specializing in Bitcoin operations and custodial advisory. Involved in the Cryptocurrency industry actively involved in the space since late 2013.**

**5**. What do you believe is the future of Blockchain technology and the impact that it may have on the future of businesses?

I believe the term "blockchain" is quite possibly the most overhyped buzzword of this decade. The term was derived from. The Bitcoin whitepaper and is a part of how the system works. There is a lot of "dumb" money in the space, 95% of the so called blockchain companies or projects are outright scams. Giving visions of a tech utopia with technical jargon used to sway less technically savvy investors and VC's.

There is not one single project out there besides Bitcoin which I feel solves a real world problem today.

As we discussed previously, Bitcoin solves two real world problems.

1. Censorship-resistant, permission less value transfer.

2. Decentralized, sound monetary policy. As far as a new form of money goes, it's usually a winner-takes-most market, because of network effects. Something which is trying to be a new form of money undergoes a very different evolution than traditional tech companies. The major impact Bitcoin will have is that it will eventually limit the nation states' ability to debase the money supply. Bitcoin is an insurance policy against totalitarianism. As far as the other crypto protocols go, it is unclear when they will disrupt other industries as it is too early to tell. Bitcoin will have to go mainstream first before any other protocol achieves real world adoption.

**6**. Do you think cryptocurrency through blockchain tech is the future of financial services?

-Blockchain tech is mainly just a marketing buzzword used to sell over-engineered software with no real world application. People are capitalizing on this industry because it's so new. It's easy to scam people when not a lot of people understand the tech and fully grasp the implications. Savvy banks like Fidelity are starting to realize this and are putting more focus on Bitcoin. A particularly good example of an over engineered private blockchain company called R3cev that had millions of dollars of investment by the world's most powerful banks, yet failed to deliver any real world value. It remains unclear whether private blockchains will ever solve anything.

**7**. How can professionals, especially, in the field of finance, equip themselves in the changing business environment with the advent of the fintech concept?

-When learning about anything it is important to start with the fundamentals, i.e. The roots and origins. Since it all started with Bitcoin, one must start there and try to grasp the different aspects of it. Namely the computer science, economics, game theory and monetary history. The major motivations behind bitcoin has a lot to do with the Cypherpunk movement and the Austrian school of economics.

**8**. How do you think cryptocurrencies through blockchain technology will impact the way business transact and share data?

-Bitcoin will allow for more transparency in terms of proof of reserves. Multi signature smart contracts will also prove to be a valuable feature to improve efficiency.

As far as Venezuela goes, I was only helping immigrants send money to their families using bitcoin through informal remittances.

**ANALYSIS OF INTERVIEW 4**

Prashanth's view is more critical on blockchain technology, this current breakthrough has led to a lot of scams and problems. He is critical of many projects used to sway VCs and according to him Bitcoin is the only one project which has the potential. Bitcoin has the potential to become sound money, and increase the purchasing power and value and back fiat currency. He believes that Bitcoin protocol must be adopted before any other crypto currency could be used. Many private blockchain companies have failed to deliver products that can be applicable to real world even with millions of dollars of investment. And finally, to understand any concept, tracing back to the origin is important, understanding what started when and why it was started, it draws from majority of economics, computer science and finance principles.

**CONCLUSION**

This interview allows me to conclude that blockchain cannot exist as a technology on its own and referring to the previous interview from Cathy Guo, CEO of Dunya Labs that cannot exist blockchain individually without cryptoasstes or cryptocurrency. They go hand in hand.

**CHAPTER 6**

**DATA ANALYSIS AND INTERPRETATION**

**SET 1**

**6.1 SUMMARY OF FINDINGS FROM CIRCULATED QUESTIONNAIRE**

1.A whooping 80.2% are aware of the existence of cryptocurrency compared to only 19.8% who are unaware

2.62.4% have an understanding of the blockchain technology or at least an idea about it compared to 37.6% who don’t understand its functioning

3. However, 77.2% do not have access to buy or sell crypto currency compared to 22.8% who do

4. But 54.5% believe that cryptos have the power to replace normal currency and 45.5% don’t which is a close gap.

5.21.8% would accept cryptocurrency as a medium of exchange in future and 63.4% responded with a maybe, probably due to the fact that they are unaware of how it would work and are lacking knowledge on the rules and regulations.

6.As expected, 43.6% are ready to accept the concept of crypto currency only for the purpose of investment gains, however, trading and medium of exchange don’t lag far behind and stand at25.7% and 30.7% respectively.

7. Nearly 22% believe that businesses would find it feasible to adopt crypto while 67.3% are of the opinion that it would depend on the rules and regulations and a 10.9% think that it wouldn’t be feasible.

**6.2 RECOMMENDATIONS FROM THE SUMMARY 1**

* The point of this research is to prove the fact that crypto currencies are gaining more and more importance in the new world and are tremendously acquiring the title of global currency however, the blockchain technology might be at a higher risk with the quantum computers soon coming into market place and therefore, it is necessary to continue and strive towards more progression related to the security of the crypto assets
* Countries where cryptocurrencies are not legal must be legalized with certain rules and procedures keeping the decentralization authenticity of the concept of cryptocurrency intact for businesses to safely dedicate their line of work into blockchain technology and businesses.
* Develop more technologies like RdixDLT that facilitate quick transactions and minimal transaction fee.
* A step must be taken by the government to promote crypto for better economy as many third world countries are doing well to tackle hyper inflation and poverty and improve business to go global
* Propagate the idea and allow people to know they have alternatives besides the fiat currency
* Reduce scalability issues in dealing with crypto
* Provide financial protections or an option to approach the judiciary systems in case of theft or hacks

**6.3 CONCLUSION SET 1**

This research has proven to have its own pros and cons for the feasible use of cryptocurrency. Though many businesses as cited in the review of literature seem to be enjoying the benefits of the newly found technology there still are many businesses that are skeptical about adopting the use of such currency as proven by the data collected (addressed by question 7 under data analysis). The concept of decentralization of transactions has attracted many investors and customers in its wake due to its peer-to-peer concept but also has created a wider number of speculators. It can be safe to assume that the whole concept of cryptocurrency is still in its embryonic phase and there is a lot of room for experimentation be it regarding an efficient way to mine which consumes less power which is not proof of stake or a better acceptance or regulation of currency keeping intact the crux of its creation.

The number of people who have knowledge of cryptocurrency has shown increasing trends, which only shows that people are open towards alternatives other than the traditional current fiat money. But naturally, like all technological discoveries or evolutions to shift the paradigm of thinking, the use of these digital currencies has their own flaws in the subject of structure and the functionality aspect.

As far as businesses are concerned, the future for crypto is bright but has its own implications depending on the rules and regulations as inferred by the data collected. Wider adoption of the new rising technology,DLT will perhaps completely eliminate the problems of high transaction fees, lesser transaction time and higher scalability but, keeping in mind the recent 500$ million theft from Cioncheck asserts on the fact that the accessibility, convenience, scalability, security, scams, threats and problems are as persistent as ever to completely edge over to cryptos. But with many businesses adopting and exploring the tech and believing in the fact that it is the next big thing after the internet makes it a major disruptor in the field of finance.

**SET 2**

**6.4 SUMMARY OF FINDINGS FROM THE INTERVIEWS**

Though this market and technology is new, many are aware of the revolution it has become and how helpful it is for businesses and people especially in the third world countries. Many startups have started off to embrace this new technology and explore more in the area of what is blockchain capable of. The people I have interviewed strongly believe that research in this field is an important agenda and that it is nothing short of a revolution and were very encouraging and positive about the industry. The way businesses are going to be shaped and the way business process can be made more efficient through decentralization, smart contracts to reduce the costs on operations will make them more coherent and systematic with their ultimate vision. The ease of audit, efficiency and next level of transparency in the management culture are some things that can be achieved with this technology. The ultimate aim of these people working in the industry, is to make this technology and fintech mainstream, since it’s the next big thing after the internet (Web 3.0). The main objective of the interviewers was to understand the inside of the markets and what is ultimately the future of it. Prashanth brought to light the value of money in today's world and connected it with the concept of sound and unsound money from the point of view of economics. People have lost faith in unsound money which decreases their purchasing power and the value of their currencies, however Bitcoin leans more towards the concept of sound money, where the decentralized nature allows is to back fiat currency and reverses the order, of gaining more value for the money you have as the time passes. However, before achieving the public consensus and becoming mainstream it must satisfy the five key characteristics of money, i.e, scarcity, fungibility, portability and recognition. Jackie from Oddup is more facilitating, believing the fact that it will not replace the existing system in businesses but has the potential to co-exist with the current processes but further research will allow it to become the next big disruptor.

**6.5 CONCLUSION SET 2**

The technology has a long way to go but the businesses adopting this process has an even longer way to go, the ultimate way is when regulatory bodies are more facilitating and the businesses gain trust in the currency and its process in order to shift the way businesses are run. The businesses must run pilot tests and be open to change.

These businesses are trying to create a niche and a better world by trying to reduce cost and allow research to flourish the fintech revolution

**ANNEXURE**

**1. INTERVIEW QUESTIONNAIRE**

1. What is the name of your company and what is its purpose?

2. Which industry do you operate in?

3. For how long has the company been in operation?

4. What is your job role?

5. What do you believe is the future of Blockchain technology and the impact that it may have on the future of businesses?

6. Do you think cryptocurrency through blockchain tech is the future of financial services?

7. How can professionals, especially, in the field of finance, equip themselves in the changing business environment with the advent of the fintech concept?

8. How do you think cryptocurrencies through blockchain technology will impact the way business transact and share data?

**2. BIBLIOGRAPHY**

1. https://blockgeeks.com/guides/proof-of-work-vs-proof-of-stake/
2. https://repository.upenn.edu/cgi/viewcontent.cgi?article=1133&context=wharton\_research\_scholars
3. <https://bitcoin.org/bitcoin.pdf>
4. Bill Chappell. (2013, November) npr. [Online]. http://www.npr.org/blogs/thetwo-way/2013/11/27/247577278/man-laments-lossof-thousands-of-bitcoins-as-value-hits-1-000
5. MARC ANDREESSEN. (2014, January) The New York Times. [Online]. http://dealbook.nytimes.com/2014/01/21/why-bitcoinmatters/
6. As citedhttps://blockonomi.com/cryptocurrencies-developing-countries/)
7. https://blockonomi.com/mt-gox-hack/
8. http://www.thehindu.com/business/Industry/tokyo-based-cryptocurrency-exchange-hacked-losing-530-million/article22533313.ece
9. https://www.theatlantic.com/technology/archive/2017/05/blockchain-of-command/528543/
10. https://www.timeslive.co.za/news/south-africa/2018-03-01-50-million-crytocurrency-scam-cripples-south-african-investors/

11. VirtualCurrency Today, "Regulation of Virtual Currencies: A Global Overview," Virtual Currency Today, 2015.

12. https://www.stellar.org/papers/stellar-consensus-protocol.pdf

13. https://www2.deloitte.com/content/dam/Deloitte/in/Documents/tax/tax-2016/in-tax-deloitte-finance-in-the-digital-age.pdf

14. https://www.lition.io/docs/Lition\_Whitepaper\_V1.10.0\_public.pdf

15.http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/140793/LDM\_BRI(2014)140793\_REV1\_EN.pdf

16.https://www.forbes.com/sites/sarahhansen/2018/09/12/new-report-finance-execs-believe-cryptocurrency-is-here-to-stay/#79714f4f7c1e9    (future of finance)

17.https://www.forbes.com/sites/lawrencewintermeyer/2018/10/26/the-role-of-cryptocurrencies-in-future-society/#1b0c1122787d

18.https://www.forbes.com/sites/lawrencewintermeyer/2018/10/26/the-role-of-cryptocurrencies-in-future-society/#1b0c1122787d9  (future of finace)