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BLOCK CHAIN – DRIVERS AND BENEFIT STATEMENTS FOR ADOPTION IN VENTURE CAPITAL FINANCIAL SERVICES

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Abstract

Disruption is the new norm and change has always been the constant. Times when currency, transactions, systems are undergoing change, wide frame changes are visible and upcoming. Privacy, security and cost efficiency are the performance parameters necessitating disruption and adoption of block chain. Financial services are at the forefront of keeping secrecy of customer details and transactions, and are found to be reluctant at the same time required to undergo changes. Evolution of money from barter system built the modern day economy. In prevalent times if technology is expected to change the form of currency, financial services too are expected to undergo changes. Venture capital is the funding process adopted by experts providing finance based on its long term prospects. Initial Coin Offering, Initial Exchange Offering, Equity Token Offering and Security Token Offering are new alternatives under block chain based technology. The triangulation methods in research, uses multiple methods and theories, to find answers of research question. The triangulation methods make use of secondary environment analysis analyzing industry, text and financial analysis with a focus on diffusion of innovation and categorization of adoption. Desire for anonymity, decentralization, democratization and efficiency enabling transactions without intermediaries, with enhanced security, greater transparency, trace-ability, increased speed and automation are the benefits of block chain technology albeit with legal and technological challenges.

Keywords: *PEST analysis, smart contract, distributable ledger, technology, triangulation method, benefit statement*

INTRODUCTION

A technology i.e. cost efficient and offers enhanced security, improved transparency and increased efficiency, block chain shows prospects for being adopted in financial services like venture capital, asset management, loan syndication, equity post trade records, asset re-hypothecation, trade finance, payments, Know Your Customer - KYC, Anti Money Laundering - AML financial inclusion, peer to peer transactions, compliance, insurance, clearance and settlement etc.

BLOCK CHAIN AND DISRUPTION

Block chain is turning out to be a technology having potential to transform the status quo in finance, health care, supply chains, education, energy consumption and world at large. The USP – unique selling proposition, that this technology guarantees is secure, immutable, decentralized, and transparent data services, offering speedier transactions at low cost for various business network stakeholders. Testimony of block chain's utility is interest shown by central banks, financial institutions, and technology based firms in block chain technology.

WHAT IS BLOCK CHAIN AND HOW DOES BLOCK CHAIN WORK?

"The block chain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value." (Tapscott & Tapscott, 2016)

Block chain works on distributable ledger technology DLT, which is referred to as a secure, distributable database or ledger shared across a network of participants (nodes), where up-to-date information is available to all participants at the same time. (https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-blockchain, 2022)

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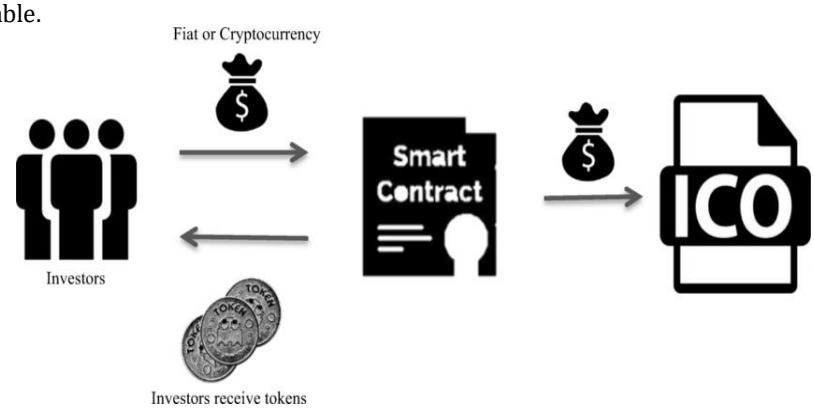
Block chain is a globally shared, transactional database similar to Google docs allowing simultaneous working and editing, added benefits are of traceability, consensus of transactions and immutability that too undeniable and unchallengeable.



Kher, Terjesen, & Liu. (2021). ICO process and generation of tokens. Researchgate. https://www.researchgate.net/figure/The-ICO-process-and-generation-of-tokens_fig3_338845616

For financial services, block chain is seen to be having its usage in implementation of smart contracts. A smart contract is an immutable agreement entered with possibility of some parts requiring human input and control. A smart contract offers tamper-proof execution of computer code and is also an enforceable agreement by legal enforcement of rights and obligations.

Distributed ledger is a digital record that is shared instantaneously across a network of participants that can be analogy wise compared to google documents which allows working on same file by various editors. The name distributed is because the record is held by each of the users (or nodes) on the network and each copy is updated with new information at the same time. Distributable ledger technology uses a consensus technique for ensuring that every node agrees on the record, with different distributed ledger technologies using different consensus methods. (https://www.isda.org/a/6EKDE/smart-contracts-and-distributed-ledger-a-legal-perspective.pdf)

Blockchains can be viewed as another form of intermediaries, which encodes the rules of the game as computer programs and allows different entities or nodes with varied interests to work jointly on an immutable ledger. Blockchains ensures a system adhering to the rule and ensures that transactions do not go through if the transactions are not complying om agreed conditions.Transaction is the carrying out of exchange which can takes place at varied places, varied forms and varied parties. Transactions in block chain are supported by trust systems. In block chain 'trust systems' takes a different form, based on nature of transactions. This trust system ensures to create checks and balances and ensure that parties involved fulfil their responsibilities.

HOW CAN BLOCK CHAIN BE USEFUL?

(Blockchain: The India Strategy, 2020) lists block chain solutions offering following benefits and limitations in terms of secure data sharing and claims processing.

Benefits of block chain solutions:

- Shared view of truth: same-time access to the shared database. This shared database should be authorized, so that only pertaining read or write applications of data can be facilitated.
- Programmable transfers: blockchain enabling smart contract based solution on the fulfillment of conditions, can instantly and freely transfer funds. Traditional system adopted payments go through separate routes and information is updated on separate databases.
- Immutability: Blockchain smart contracts cannot be altered once published, and also fund transfers cannot be intercepted.
- Transparency: For institutions, blockchain would remove the need for unnecessary intermediaries and brings in integrity and accountability.

Limitations of block chain solutions:

- Share write access: The need for block chain is only wherein multiple parties need to update the records. In other cases, a central repository with multiple real-time read-only instances make more sense.

- Low transaction volume/ limitation of processing time: Visa processes around 50.000 transactions per second whereas blockchain platform Ethereum is working towards reaching 3.000 transactions per second.
- Not suitable for non-transactional data: Blockchain is apt for transaction records and not private information.
- Reliance on trusted third parties: In case if process requires use of or regulators, it may become necessary to include regulators etc. to ensure compliance with laws
- Controlling functionality: Authorized or permissioned block chain is appropriate, in case If there is requirement of ability to change the functionality on a block chain.

BLOCK CHAIN AND DISRUPTION IN VENTURE CAPITAL FIELD

Venture capital is the investment in a firm by experts believing it to be having long term prospects. Startups find it difficult to get investments, for entrepreneurs assurance of returns is must to ensure due diligence by investors. Entrepreneurs are required to prove it to investors too woo investors and deliver worth. Initial Coin Offering, Initial Exchange Offering, Equity Token Offering and Security Token Offering are block chain based alternatives of traditional venture capital mechanism.

INITIAL COIN OFFERING AS REPLACEMENT OF TRADITIONAL VENTURE CAPITAL

ICO is a tool for entrepreneurs and startups for crowdfunding in which they raise their funds by creating tokens/coins and sell them in exchange for their investment.

As a novel approach to venture capital, ICOs permit raising of capital by offering tokens – cryptographically protected digital assets by recording and transmitting immutable data in network. ICOs have recently been popular, in which entrepreneur pre-sells digital token later to serve as medium of exchange on peer to peer platform.

For venture capital crowd funding has been in use and now with ICO, a token in form of crypto currency is offered to investors for obtaining growth in investment made and returns on that. Banning of ICOs in chinese markets and ICOs not being regulated in India, US and Japanese markets have been catching up on fund raising through ICOs. As ICOs are not approved, start-ups are managing them through US and Japan routes. Indian startups have also been open to ICOs. ICOs enable one to earn money through an open and transparent platform. India based startup and cab aggregator in car and bike rental space, Drivezy a Bengaluru-based peer-to-peer vehicle- Car & Bike sharing platform, backed by Y Combinator and Google, Drivezy has unlocked true potential of blockchain. Drivezy has raised a total of $21 million from leading global investors by offering tokens known as rental coins. Out of this, $5 million was collected as part of its first round of initial coin offering (ICO), got sold out in 60 seconds after getting alive. At this moment, though that ICO assures 10x returns, lower transaction costs and increased transparency, and startup ecosystem in true sens, it sounds to be a risky proposition as regulations impose strict restrictions. As far as Indian investors are concerned, it it difficult to sell such hi-tech ideas, know how for ICOs is lacking and at the same time due diligence remains as time taking exercise. (Dash, 2017)

ICOs facilitate capital raising by selling tokens to pool of investors and are gaining popularity as entrepreneurial finance. (Fisch, 2019)

Performance of blockchain Technology based firms can be evaluated in terms of growth, utilization, and profit. Block chain Technology Based Firms- BTBFs have potential to outperform its traditional alternatives in venture capital finance.
(Fisch C. M., 2019)

Possibility to reduce costs of raising capital, removal of intermediaries, decentralized business and potential to create secondary market for investments are the reasons for adoption of block chains in raising funds. Irrespective of the fact that ICOs bypass regulations applicable to businesses placing securities to retail investors, the fact is that ICOs represent a new and unexplored source of financing for innovative projects. Success rate of ICO is as high at 81% though that governance and details on usage of proceeds require more of transparency. (Adhami, Giudici, & Martinazzi, 2018)
Human capital, social or alliance capital, and intellectual capital with uncertainty on fundraising success were studied as major factors affecting venture quality. Venture quality was interpreted as most effective signal,

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strongly impacting the probability of funding success. Social capital and intellectual capital was found to be having little or no impact on funding success.. (Ahlers, Cumming, & Schweizer, 2015)
Considering a country-wide perspective, number of team members and advisors had positive impact and presale offers and bonuses had negative effect. Country's financial system development, legal friendliness and country's culture strongly determines the ICO issue. (Ahmad, Kowalewski, & Pisany, 2021)
Venture quality in form of better connected CEOs and larger team size is positively connected to success of ICOs whereas , inherent uncertainty in form of shorter whitepapers, higher percentage of tokens distributed are negatively connected to ICO success. (Amsden & Schweizer, 2018)
Whitepaper on ICO clarifies both ideological, financial and technological motives of ICO investment by crowd funding investors (Fisch, Masiak, Vismara, & Block, 2021) A Whitepaper being similar to prospectus in IPO process is a document in which a venture provides information to the public and constitutes an important component of a venture's ICO campaign. (Fisch C. , 2019)

In 2017, ICOs raised over 5 billion US dollar, whereas equity investment in the sector was 1 billion Us dollars. Pro ICOs vote in favor due to encouraging numbers whereas critics argue on lack of regulation, lack of legal status and varied attributes making it difficult to categorize it as a right to future earnings, utility or a pure security. (Li & Mann, 2018)

‚A professional network platform in the education - SpringRole., an AI-based sports platform - Machaao, a gifting platform – EasterEgg and a fintech company -, Cashaa„ are Indian startups to have plans to raise funds via ICOs. (Pillai, 2018)

STEPS INVOLVED IN DEVELOPING AN ICO

(Faith, 2021) provides following steps in developing of an Initial Coin Offering:

1. Generating idea: This being the first step refers to generation of business ideas and ICO development companies are approached
2. Creating White paper: white paper created by experts mention venture's blockchain technology, business potential and about the team. The crypto white paper with an intention to motivate investors to invest outlines the state and plans for a project
3. Designing ICO platform: Development company keeping in mind target market, starts designing ICO platform
4. Choice of social media platform: social media platform is selected to market ICO.
5. Creation of tokens for exchange: Blockchain developers generates tokens and they are to be exchanged with the investors.
6. Developing wallets with multi-currency support: Once the tokens are created, multi currency wallets are developed.
7. Post marketing: As the ICO development is completed, post-marketing activities are followed.

PEST ANALYSIS: DRIVERS AND DRAWBACK

PEST analysis is an acronym of political, economical, social and technological factor analysis for assessment of external environment.
Primary political factor driving adoption of block chain technology is transparency and trust as public block chains are viewable by all participants and cannot be distorted or misused, allowing trust of transactions without a required regulatory party. Adoption of block chain could be wide spread with recognition from regulatory bodies.
Primary economic factor driving adoption of block chain technology is economic cost as block chain automates a number of existing functions reducing transactions costs and increasing efficiency by improving completion time. Block chain accomplishes this objective by removing the need for third party intermediary transaction fees. Block chain has observed speed breaker in form of volatility as currency fluctuations have impacted value of market and susceptible to market shocks.
Primary social factor for adoption of block chain technology is user Control, as it offers ability to monitor transactions in a single location.
Primary technological factor for adoption of block chain technology is technical Quality as block chain offers decentralization, reliability, durability and security, offering greater protection against fraudulent transactions. (Woodside, Augustine Jr., & Giberson, 2017)

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TRIANGULATION METHOD – DIFFUSION OF INNOVATION AND CATEGORY OF ADOPTION

The triangulation methods in research uses multiple methods, theories, and/or investigators to find answers of research question and as a research strategy it can help with enhanced validity and credibility of findings and to eliminate research biases. The triangulation methods refer to secondary environment analysis analyzing industry, text and financial analysis with a focus on diffusion of innovation and categorization of adoption.
Referring to text analysis, block chain falls in innovator's category as only 2% of the top 50 companies included block chain in their annual reports. In addition to that block chain as of now is perceived as a 'blue-sky' type of technology meaning that it is largely theoretical and less proven. Financial Analysis especially focusing on market capitalization, block chain is seen as early adopters and as block chain supported bitcoin as a currency is only a fraction of the total currency circulation. Industry analysis wise block chain is seen as innovators as a growing number of companies are dedicated to block chain technology and as there is still a large degree of indecision around global governmental regulation and taxation requirements. (Woodside, Augustine Jr., & Giberson, 2017)

BENEFIT STATEMENTS FOR ICOS BASED ON BLOCK CHAIN TECHNOLOGY

1. Desire for anonymity characterizes most ICOs based on block chain technology (Kastelein, 2017)
2. Decentralization, democratization and efficiency enabling transactions without intermediaries, thus reducing transaction costs and transaction complexity. (Atzori, 2017)
3. Enhanced security, greater transparency, traceability, improved efficiency, increased speed and automation are the benefits of block chain technology. (https://www.ibm.com/topics/benefits-of-blockchain)

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