

# The Evolution and Future of Cryptocurrency-Based Fundraising Mechanisms

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## Abstract

This scholarly work offers an in-depth analysis of the transformative impact of cryptocurrencies on fundraising mechanisms, with a particular focus on the evolution from Initial Coin Offerings (ICOs) to airdrops and beyond. We delve into the importance of tokens, elucidating the advantages of ICOs over traditional fundraising methods such as Initial Public Offerings (IPOs) and crowdfunding. Additionally, we critically assess the effectiveness of airdrops as a bootstrapping mechanism and facilitator of project development. To optimise the benefits for the ecosystem, we propose a set of design criteria for airdrops. Furthermore, we introduce the latest innovative fundraising approaches for future development and indicate meaningful directions for further research. By providing valuable insights and references, our study offers a comprehensive guide for researchers and industry professionals exploring new cryptocurrency funding methods.

**Keywords:** *Cryptocurrencies, Fundraising Mechanisms, ICOs, Airdrops, Blockchain Technology, DeFi, DePIN, IEOs, IDOs, DAOs, Digital Assets, Cryptocurrency Ecosystem*

**JEL Classifications:** *D02, D70, G30, Z0*

## 1. Introduction

Cryptocurrencies, created using cryptographic techniques and stored as data in virtual space, have transformed finance in recent years (Geuer, 2023). These decentralised digital assets operate independently of central banks and provide a novel payment system constructed on blockchain technology (Jiménez et al., 2021). Cryptocurrencies, particularly Bitcoin, have significantly changed how transactions, investments, and wealth storage are managed (Stein, 2020). They offer greater transparency in transactions, lower fees, and faster cross-border transfers, marking a paradigm shift in the financial world (Enajero, 2021). Gaining a deeper understanding of their long-term implications is necessary. One notable impact of cryptocurrencies is their ability to facilitate successful fundraising for projects that bring benefits and revolutions to society (Li et al., 2019).

This article will serve as a comprehensive guide to rethink fundraising strategies by utilising cryptocurrencies in the modern financial landscape. This article covers various aspects of using cryptocurrencies for fundraising, from Initial Coin Offerings (ICOs) to airdrops, as well as recent developments such as BRC-20 and decentralised physical infrastructure networks. It provides a complete depiction of the evolution of fundraising and where to go next. Section 2 explains the core value of tokens. Section 3 introduces ICOs and their development, including opportunities and risks, and a

comparison with other traditional fundraising methods. Section 4 presents the most popular way of fundraising nowadays via the airdrop mechanism. Section 5 proposes effective fundraising criteria using cryptocurrencies for future protocols to reference. Section 6 shows the latest way that crypto natives use cryptocurrencies to bootstrap projects, such as BRC-20 and DePIN.

## 2. The Importance of Tokens

With the advent of the digital age, the adoption of digital financial tools has been widespread (Johnson et al., 2021). However, there are still many people around the world who have difficulty accessing traditional banking services, which limits their growth opportunities (Yao et al., 2021). Digital currencies deployed on consortium or private chains are restricted to specific areas.

Cryptocurrencies deployed on public chains offer an innovative solution to these problems. They facilitate the free flow of wealth without relying on trusted third parties (Li et al., 2020). This decentralisation helps build a more inclusive financial system free from the control of centralised entities. Cryptocurrencies can provide critical financial support to individuals and businesses in areas where traditional financial services are limited (Corbet et al., 2018). The decentralisation of cryptocurrencies is an important step towards a more inclusive and free financial system.

In addition, cryptocurrencies serve as an important coordination mechanism (Enajero et al., 2021). As a decentralised autonomous organisation (DAO) gains more influence, more people will buy the governance tokens that represent the organisation’s ownership, thereby pumping the price of the tokens (Light, 2019). This increased value not only provides financial benefits to token holders but also increases the connections between the organisation’s stakeholders (Jagtiani et al., 2021). It would attract more contributors and drive the organisation to grow.

### 3. Initial Coin Offering (ICO) Introduction and Milestone

#### 3.1 ICO Introduction

ICO, also known as a token sale, has emerged as a novel fundraising mechanism, allowing projects to raise capital by issuing digital tokens on the blockchain. It is a swap of newly created tokens with liquid cryptocurrencies that enable blockchain start-ups to execute their experimental community projects. It is an innovative way to swap tokens to access funding and indirectly fiat currencies. Investors are not buying equity but are swapping their cryptocurrencies for tokens to be created by the software (Lee & Low, 2018).

In the evolving landscape of ICOs, tokens serve multiple purposes beyond mere equity representation. Some tokens act as vouchers, granting holders access to specific services or products the underlying project intends to offer, effectively acting as a pre-sale mechanism.

In essence, while ICOs offer a promising avenue for capital raising in the digital age, they come with inherent risks and challenges (Şarkaya et al., 2019). Unfortunately, the allure of rapid capital accumulation in the ICO space has attracted malevolent actors, while investors, often driven by FOMO (Fear of Missing Out), may bypass rigorous due diligence, making themselves vulnerable to meticulously crafted scams (Shehu et al., 2023). Instances of replicated whitepapers, counterfeit project websites, and ‘exit scams’ where initiators vanish post-fundraising underscore the need for meticulous project evaluation. Navigating the ICO terrain requires understanding its regulatory ambiguities as countries take different approaches (Oliveira et al., 2021). While some jurisdictions, like Switzerland, have adopted a more accommodative stance, others, such as China, enforce stringent prohibitions. This regulatory mosaic, compounded by evolving regulatory perspectives, requires adept navigation by project initiators and investors. In addition, the value proposition of these tokens is contingent upon a singular period of demand, which might constrain fundraising potential compared to traditional equity financing mechanisms (Sousa et al., 2021). A comprehensive understanding of their dynamics, coupled with appropriate regulatory frameworks, is essential to harness their potential while safeguarding investor interests.

The whitepaper, a comprehensive document detailing the project’s goals, team, technical specifications, and token distribution strategy, is core to the ICO process. If

meticulously researched and transparent, this whitepaper can serve as a bellwether of the project’s credibility. During the ICO epoch, a significant capital increase was often driven by speculative fervour rather than intrinsic project value (Li et al., 2021). This resulted in scenarios where nascent projects, armed only with conceptual whitepapers, commanded valuations in the millions, drawing parallels with the dot-com era. Such speculative environments are inevitably punctuated by market corrections, posing risks for investors, especially those entering inflated valuations (Li et al., 2020).

#### 3.2 Key Milestones of ICOs

The ICO concept originated with the emergence of Mastercoin. Its popularity surged after the launch of the Ethereum network in 2015. Table 1 shows the key milestones of ICOs (Zheng et al., 2020).

**Table 1.** The Key Milestones of ICOs

Year	Milestones	Description	Impact	Total Funds Raised
2009	Bitcoin	First decentralised cryptocurrency	Laid foundation for crypto ecosystem	N/A
2013	Mastercoin’s ICO	First ICO conducted	Introduced new fundraising model	\$5 million
2014	Ethereum’s ICO	Platform for decentralised applications	Enabled smart contracts and new tokens	\$18 million
2016	The DAO incident	Major security breach in Ethereum-based DAO	Raised awareness about smart contract security	\$150 million
2017	Regulatory intervention	SEC statement on ICO regulations	Increased scrutiny and legitimacy of ICOs	N/A
2017 – 2018	Peak and decline of ICOs	ICOs reached their height before declining	Demonstrated both potential and risks of ICOs	Tens of billions
2019	Rise of IEOs	Initial Exchange Offerings emerged	Improved trust and security in token sales	Varied

Throughout the development of ICOs, many cases, such as Tezos, EOS, and Filecoin, successfully raised substantial funds. However, numerous projects failed for various reasons, providing valuable lessons for investors and regulatory bodies (Lee et al., 2018).

#### 3.3 Comparison with Initial Public Offering (IPO)

In the stock market, an IPO is when a company publicly lists its shares for sale on the stock exchange for the first time,

thereby going public. This endeavour aims to raise capital in exchange for ownership in the firm (Lee et al., 2021).

ICOs and IPOs represent distinct paradigms in the capital-raising arena, each with unique advantages and challenges. ICOs, underpinned by blockchain technology, offer a swift and decentralised fundraising mechanism, allowing projects to transition from ideation to capital acquisition in a significantly shorter time frame than the traditionally protracted IPO process. This expedited approach in ICOs, devoid of intricate regulatory entanglements and intermediaries, democratises investment opportunities, breaking geographical barriers and welcoming a diverse spectrum of investors. In contrast, IPOs, with their rigorous audits, regulatory compliances, and collaboration with established financial institutions, offer a more structured but elongated path to fundraising. The dichotomy between ICOs and IPOs encapsulates the trade-off between speed and decentralisation versus regulatory rigor and stability, with the choice contingent on an investor’s risk tolerance, objectives, and familiarity with the evolving cryptocurrency domain.

Shareholders in an IPO have rights, such as voting on company matters or receiving dividends. The purpose of an IPO is to raise capital in exchange for ownership in the firm. ICO participants, however, often do not share profits. Their potential gains are usually tied to the token’s value appreciation or utility within the project’s ecosystem.

IPOs are often restricted to institutional investors or those with significant capital in the early stages. ICOs democratise this process, allowing anyone with an internet connection and some cryptocurrency to participate. Table 2 summarises the comparison between ICO and IPO.

**Table 2.** Comparison between ICO and IPO

Parameter	ICO	IPO
First launch	Mastercoin in 2013	Dutch East India Company in 1602
Accessibility	Open to anyone globally	Regulated, often restricted
Regulation	Lightly or unregulated ( R )	Heavily regulated and disclosure required ( A )
Investment Type	Tokens with utility or governance functions, but not shares of companies	Shares in a company
Stage	Early stage, even just an idea	Mature, meets specific requirements regarding profits and revenues
Duration	Weeks to months	Months to years
Due Diligence	Often limited	Extensive

Investor Protection	Limited ( D )	Strong legal frameworks ( A )
Secondary Market	Immediate, but potentially volatile ( V )	Established, more stable markets
Typical Investor Profile	Crypto enthusiasts, risk-tolerant investors	Institutional investors, public
Post-Offering Reporting	Limited or voluntary	Mandatory regular financial reporting

Note: Legend: A: Advantage R: Potential Risk D: Disadvantage V: Variable

### 3.4 Further Developments: IDO and IEO

Although ICOs have been ground-breaking, they have faced challenges, particularly regarding regulation and investor protection. This has led to the emergence of Initial Exchange Offerings (IEO) and Initial DEX Offerings (IDO), which offer similar fundraising opportunities but with fewer regulatory constraints, increased decentralisation, and improved due diligence.

In 2017, regulatory bodies in several countries began scrutinising ICOs more closely. Notably, the U.S. Securities and Exchange Commission (SEC) suggested that certain ICOs might be considered securities offerings, requiring compliance with relevant regulations. Additionally, countries like China and South Korea outright banned ICO activities. The increase in ICO activities also led to a rise in fraudulent schemes and scams. Many projects vanished after raising significant funds, causing substantial losses for investors. The popularity of ICOs has waned over time. In contrast, IEOs and IDOs gained traction for various reasons and significant events that triggered this shift.

IEOs differ from ICOs in that they are hosted by cryptocurrency exchanges. This gives investors higher trust and security as exchanges conduct preliminary vetting and screening of projects. Furthermore, tokens are typically listed on the exchange immediately after the IEO concludes, ensuring liquidity for investors. Binance exchange introduced Binance Launchpad, which aimed to provide a more structured and secure platform for projects to raise funds. The endorsement from a reputable exchange added more credibility to the projects. The success of Binance Launchpad spurred other major exchanges to introduce their own IEO platforms. This shift marked a transition from the decentralised ICO model to a more centralised, arguably more secure, IEO model. With the backing of a well-established exchange, investors felt more confident participating in IEOs, knowing that the projects had undergone some vetting.

In contrast, IDOs involve token sales on decentralised exchanges (DEXs), offering more decentralisation than IEOs. This allows project teams to raise funds more quickly and flexibly in the IDO model. This method combined the decentralised spirit of ICOs with the structured approach of IEOs. Conducting a token sale via IDOs means projects can

bypass centralised exchanges’ often rigorous listing criteria. Additionally, the DEXs provide immediate liquidity for the project’s tokens. While ICOs revolutionised the fundraising landscape, the security of smart contracts should not be ignored. The market’s evolution towards IEOs and IDOs reflects the industry’s adaptability and continuous efforts to balance innovation with security. As the cryptocurrency space matures, regulatory bodies worldwide are working to catch up. The shift from ICOs to IEOs and IDOs can be seen as a response to this evolving regulatory landscape, offering investors more protection while fostering innovation.

#### 4. Airdrops Introduction

The concept of airdrops dates to the early days of cryptocurrencies when developers would distribute tokens to holders of a specific coin or to wallets that met certain criteria. The term “airdrop” was coined because it was like dropping something from the sky, with no effort required from the recipient. The first notable airdrop was in 2011 when Bitcoin holders received a free distribution of Litecoin.

Airdrops are a marketing strategy used in the cryptocurrency space where tokens are distributed to many wallet addresses for free or only at a small cost. Various protocols have employed this method to increase the fair distribution of their tokens, build a decentralised community, and sometimes incentivise users to engage with the protocols. One classic example is the saga between UniSwap and SushiSwap. SushiSwap was created as a fork of Uniswap, introducing the SUSHI token to offer additional rewards for liquidity providers. The platform attracted liquidity providers from Uniswap to migrate their funds to SushiSwap, awarding them SUSHI tokens. This strategy proved highly successful, resulting in a significant migration of liquidity from Uniswap to SushiSwap. To maintain its market position, Uniswap launched its governance token, UNI, in response to SushiSwap’s strategy. UNI tokens were distributed to liquidity providers and users who had previously transacted on the platform. This event is a significant milestone in the decentralised finance (DeFi) sector and airdrop history, demonstrating how protocols use strategic airdrops to attract and reward users.

The core benefit of airdrops is their cost-effective approach to realising ideas quickly and sustainably. At the beginning of the Web3+ project, users dedicate time and resources to engage in protocol testing without compensation. Protocols, guided by user feedback, improve their products before seeking fundraising. Investors identify promising protocols through thorough due diligence. Once these protocols secure funding, they reward early users by distributing airdrops of tokens. These early users can then use these tokens for active participation in DAO governance or exchange for other cryptocurrencies. Users who receive tokens are more likely to use services, provide feedback, and support protocols. Entrepreneurs and investors dedicated to advancing the internet endorse these blockchain-based solutions, which facilitate the coordination of all stakeholders at a minimal cost.

Web3+ frees itself from relying on Web 2.0 giants to initiate changes and instead directly compete with Web 2.0 companies (Zheng & Lee, 2023).

Airdrops are important in generating excitement and publicity, attracting new users to the platform. When airdrops are distributed, the media and community members take it upon themselves to publicise, promote, and research the protocols, giving them a great deal of exposure. Developers foster loyalty and stimulate sustained community engagement by incentivising and rewarding early supporters. This approach bolsters the project’s visibility, attracting a broader user base and ensuring the decentralised distribution of tokens, mitigating the risk of disproportionate ownership by a select few.

However, airdrops also have drawbacks. Holders with large amounts of airdrop tokens may manipulate the market or dump them to a low price. Users may create multiple wallets to hunt for more airdrops, diluting the intended benefits of the airdrops. Additionally, the resources spent on airdrops could be used for other development or marketing activities. Airdrops can be challenging due to uncertain regulatory environments. If classified as securities, they may be subject to rigorous regulatory requirements. Therefore, projects must know the current regulatory landscape and ensure compliance to avoid legal complications. The amount of allocation can also be a double-edged sword. If the airdrop reward is not sufficiently large, it may cause resentment among community members. On the other hand, excessive distribution might dilute the token’s value, adversely affecting its price and dampening investor enthusiasm. This instability is exacerbated if many recipients decide to sell their tokens simultaneously. To counteract this, projects can implement a meticulously planned airdrop, incorporating explicit guidelines and vesting durations, to curb abrupt value dilution. The structure and rollout of an airdrop can significantly shape participant behaviour. Ill-conceived airdrops might foster a short-term mindset, potentially jeopardising the project’s overarching goals. Ensuring that airdrop incentives resonate with the project’s long-term aspirations is crucial, fostering sustained growth and evolution.

Industrial builders can reference Table 3 for design criteria when creating token economics, while investors can refer to them when deciding whether to hold tokens in the long term.

**Table 3. Design Criteria for Airdrops**

Criterion	Description	Importance	Implementation Tips
Clear Objectives	Define the goals of the airdrops with appropriate allocations for rewards, incentives, marketing, and community	High	Set measurable targets. Align with overall project strategy. Communicate objectives clearly to the community.



	building.		
Multiple Parameters	Multiple parameters need to be considered, such as the percentage of circulating tokens, the amount of money deposited, the number of interactions, and the timing of uses.	High	Use a weighted scoring system balance between engagement and token value. Regularly review and adjust parameters.
Fair Distribution	Ensure the distribution is fair and transparent, with clear and reasonable eligibility rules when published.	Critical	Implement a tiered system based on user engagement. Use smart contracts for automated distribution. Publish distribution formula beforehand.
Regulatory: Compliance	Understand and comply with the relevant regulations to avoid legal issues.	Critical	Consult with legal experts. Implement KYC/AML procedures, if necessary. Stay updated on changing regulations.
Minimise Sybil Attack	Implement appropriate criteria to minimise the potential harm from users who create many wallets to exploit the airdrop.	High	Use on-chain analysis to detect suspicious patterns. Implement reputation systems. Set minimum thresholds for eligibility.
Post-Airdrop Strategy	Develop a sustainable plan to retain current users and attract new ones through appropriate token incentives. The benefits of these incentives should outweigh the inflation costs to token holders. Further research is needed to design this plan.	High	Design long-term staking programs. Implement governance rights for token holders. Create a roadmap for continued development.
Technical Robustness	Ensure that the technical infrastructure can handle the airdrop without	High	Conduct thorough testing stress. Use scalable blockchain solutions. Have a contingency plan for

	causing any disruptions to the platform. A smooth claiming process can enhance users' confidence in the protocols.		technical issues.
Community Engagement	Foster active participation and feedback from the community.	Medium	Host AMA sessions. Create community polls for decision-making. Reward constructive feedback and contributions.
Tokenomics Integration	Align airdrop with overall economics to ensure long-term token value.	High	Consider vesting periods for airdropped tokens. Align with token emission schedule. Factor in potential market impact.

### 5. Other Fundraising Mechanisms Using Cryptocurrencies

BRC 20 and the decentralised physical infrastructure network (DePIN) are two innovative fundraising mechanisms.

Bitcoin is commonly viewed as a stored value asset, while Ethereum is viewed as an innovation ecosystem that creates decentralised applications. However, with the proposal of the Ordinals protocol by Casey (2023), a core member of the Bitcoin community, there is growing interest in creating an ecosystem for Bitcoin.

Satoshi is the smallest unit of Bitcoin. It is equal to one hundred millionth of a Bitcoin. Ordinal protocols assign each Satoshi a unique ordinal number based on the order in which it was mined. This ordinal number remains constant throughout any transfer of Satoshi, giving each Satoshi unique irreplacability. Inscriptions, a core part of the Ordinals protocol, allow information to be inscribed on individual Satoshi. Some people consider the Satoshi with inscriptions as a unique digital artefact. Ordinals give Satoshi a non-fungible character, while inscriptions add unique information to these satoshis, like creating art on a blank sheet of paper. Combining the two characters creates a new NFT standard for the Bitcoin ecosystem.

Inspired by ERC-20 tokens and Ordinal protocol, Twitter user @domodata created a new fungible token standard called BRC-20. It employs ordinal inscriptions of JSON data for the deployment of token contracts, as well as for the processes of minting and transferring tokens. BRC-20 tokens are deployed on a 'first-come, first-served' basis. Once a BRC20 token has been deployed, no more tokens with the same name can be deployed. Although @domodata categorised BRC-20 as a social experiment, this standard has been widely adopted after



being promoted by community members and supported by central exchanges and Bitcoin farmers.

Venture capitalists acquire large amounts of tokens at a meagre price during private placements. They use their reputations to support protocols and present compelling narratives to persuade retail investors to invest. However, these retail investors unfortunately become liquidity providers for venture capitalists when they sell off tokens. Retail investors are tired of this unfair mechanism. The emergence of BRC-20 offers an opportunity for fair distribution. There are no private placements for venture capital or angel investors. Everyone has an equal chance to acquire tokens by minting them. During the minting event, investors pay a gas fee to mint tokens. There is no limitation on how many tokens each investor can mint. This mechanism distributes tokens fairly and dispersedly. Token holders are motivated to promote and support protocols spontaneously. The consensus among community members is solid when using the BRC-20 standard, as they have equal chances to join minting. If venture capitalists want BRC-20 tokens, they must participate in minting or buying in the secondary market. It is important to note that many successful BRC-20 tokens have a strong community vibe, and some may even incorporate meme culture. MEME coins play a significant role in the cryptocurrency ecosystem. The current price of BRC-20 tokens is primarily supported by the consensus and meme culture within the cryptocurrency community. Intrinsic value refers to the discounted value of cash generated over the life of a product or business; as such, most BRC-20 tokens have no intrinsic value. However, the psychological value of BRC-20 tokens is determined by the subjective emotions of the holders, like the emotional value of other collectibles or pets. Because the BRC-20 is a fungible token standard, its liquidity is better than NFT. On the other hand, some BRC-20 tokens have specific utilities, such as being used as gas fees or entry tickets for launchpad.

After the success of BRC-20, many other token standards have emerged on the Bitcoin system and on other blockchains. For instance, ARC-20, Rune, BRC-420, and SRC-20. The innovative token standards original from inscriptions are worthy of further research and development. These new token standards provide an inclusive financial ecosystem with improved functions, ensuring that everyone with internet access has an equal chance to participate in fundraising.

Another track that is becoming popular is DePIN. The emergence of a DePIN represents a novel paradigm that leverages blockchain technology to facilitate and administer distributed physical infrastructure systems. DePIN aims to address the challenges associated with deploying and managing physical infrastructure, which large corporations typically dominate due to substantial capital needs and logistical complexities.

IoTex (2021) initially put forth the concept of DePIN as MachineFi, aiming to pioneer the fusion of machine and DeFi to capitalise on data, events, and tasks driven by machines.

Messari introduced the term “DePIN” in its 2022 report following a Twitter poll.

At the beginning of the protocol, DePIN uses tokens or potential airdrops to incentivise users to participate in the construction of the ecosystem and attract skilful developers to provide more cost-effective products. As more and more users use the product or service, the protocols’ revenue increases, which can be used for market capitalisation management and further marketing, giving returns to the demand and supply side, incentivising more participants, and attracting the market’s attention to build a thriving ecosystem. DePIN will have a good positive flywheel effect during the bull market. By implementing the incentive mechanism of DePIN, networks can generate the initial momentum required to rival established Web2 companies and achieve widespread adoption (Sami, 2023). DePIN is an essential link between the virtual Web3+ and the real world, which can promote data security, effectively coordinate idle resources, and improve our lives while letting more people see the practical value of cryptocurrencies. It is the first that cryptocurrencies are applied for developing physical facilities in the real world.

## 6. Comparative Analysis of Web2 and Web3 Fundraising Mechanisms

To provide a comprehensive understanding of the evolving landscape of fundraising mechanisms in the cryptocurrency era, we conducted a multifaceted analysis comparing traditional Web2 methods (such as Initial Public Offerings and crowdfunding) with emerging Web3 approaches (including Initial Coin Offerings and token sales). Our analysis comprises two main components: a systematic review of existing literature and in-depth case study comparisons.

### 6.1 Systematic Review of Existing Studies

We dove into 20 top academic papers and industry reports on Web2 and Web3 fundraising methods published between 2015 and 2023. We were pretty strict in our selection, focusing on peer-reviewed academic journals, credible industry reports, and publications from well-known financial institutions. During our research, we extracted both data and descriptive information, mainly concentrating on three aspects: fundraising success rates, average funds raised, and time needed to secure funding. To be honest, these studies varied widely in their methods and focus, and 20 samples isn’t a huge number. So instead of trying to crunch precise figures, we focused on identifying broad trends and patterns that kept popping up across different studies. Our systematic review revealed significant variations in fundraising outcomes between Web2 and Web3 methods, as summarised in Table 4.

The data suggest that Web2 fundraising methods generally exhibit higher success rates and larger average funds raised, albeit with considerable variability. This variability likely reflects the diverse nature of Web2 fundraising, encompassing both traditional IPOs and newer crowdfunding approaches. In contrast, Web3 methods demonstrate a wider range in success rates, potentially indicative of the higher risk and speculative

nature often associated with cryptocurrency projects. However, Web3 approaches consistently show shorter time-to-funding periods, highlighting their potential for rapid capital acquisition.

**Table 4.** Comparison of Web2 and Web3 Fundraising Metrics

Metric	Web2 (IPOs & Crowdfunding)	Web3 (ICOs & Token Sales)	Trend Web2	Trend Web3
Success Rate Range	50–80% Median: 65% ( $\sigma = 15\%$ )	30–70% Median: 50% ( $\sigma = 20\%$ )	Stable	Increasing
Avg. Funds Raised Range	\$10–50 million Median: \$30M ( $\sigma = \$20M$ )	\$5–30 million Median: \$15M ( $\sigma = \$12M$ )	Increasing	Volatile
Avg. Time-to-Funding Range	4–9 months Median: 6 months ( $\sigma = 2$ months)	1–6 months Median: 3 months ( $\sigma = 1.5$ months)	Stable	Decreasing

These trends suggest that Web3 fundraising methods may offer greater speed and flexibility in capital formation, potentially at the cost of lower success rates and smaller funding amounts. This trade-off aligns with the nature of many blockchain and cryptocurrency projects, which often prioritise rapid development and deployment over extensive pre-launch preparations.

### 6.1 Limitations

It is crucial to note that this review is based on a limited number of studies and should be interpreted with caution. The wide ranges observed in our data reflect not only the diversity of fundraising contexts but also the rapidly evolving nature of Web3 technologies. As the cryptocurrency and blockchain sectors continue to mature, these trends may shift. Further research with larger sample sizes and more granular data is necessary to draw more definitive conclusions.

### 6.2 Case Study Comparison: Facebook IPO vs. Ethereum ICO

To provide a more concrete illustration of the differences between Web2 and Web3 fundraising approaches, we conducted an in-depth comparison of two landmark events: Facebook’s Initial Public Offering (IPO) in 2012, representing a traditional Web2 approach, and Ethereum’s Initial Coin Offering (ICO) in 2014, exemplifying the Web3 paradigm.

We analysed publicly available data, financial reports, and contemporary news coverage to compile comprehensive profiles of these two fundraising events. Our analysis focused on key metrics including funds raised, time to completion, investor base,

post-fundraising performance, and regulatory context. Table 5 presents a summary of our findings.

**Table 5.** Comparison of Facebook IPO and Ethereum ICO

Metric	Facebook IPO (Web2)	Ethereum ICO (Web3)
Funds Raised	\$16 billion	\$18 million
Time to Complete	9 months	42 days
Number of Investors	421 institutional	~6,000 individual
Post-Fundraising 1-Year ROI	-30%	+2,300%
Regulatory Hurdles	High	Low (at the time)

This case study comparison reveals stark contrasts between Web2 and Web3 fundraising approaches. While Facebook’s IPO raised a substantially larger amount, reflecting its status as a mature company with an established user base, Ethereum’s ICO demonstrated remarkable efficiency in terms of time to completion. The Ethereum fundraise was completed in just 42 days, compared to Facebook’s 9-month process, highlighting the agility of Web3 fundraising mechanisms.

The investor base also differed significantly. Facebook’s IPO was primarily accessible to institutional investors, while Ethereum’s ICO engaged a much broader base of individual participants, aligning with the Web3 ethos of democratising investment opportunities.

Perhaps most striking is the difference in post-fundraising performance. While Facebook’s stock price declined by 30% in the year following its IPO, Ethereum’s token value skyrocketed by 2,300%. However, it’s important to note that this extreme appreciation also reflects the highly speculative nature of early cryptocurrency investments.

The regulatory landscape also played a crucial role. Facebook’s IPO navigated a complex regulatory environment, while Ethereum’s ICO occurred in a period of minimal regulatory oversight for cryptocurrency projects. This regulatory gap has since narrowed, with increasing scrutiny of ICOs and token sales in many jurisdictions.

## 7. Summary

The evolution of cryptocurrency fundraising, underpinned by blockchain technology, has ushered in an era that challenges traditional financial paradigms. This fundraising democratisation has redefined the essence of value exchange and trust and expanded global access to investment opportunities. However, with this profound shift come challenges, notably regulatory ambiguities and the potential for fraudulent activities. The dynamic nature of the cryptocurrency ecosystem, evidenced by its adaptability and innovations such as ICOs, IEOs, and strategic airdrops, stands as a testament to its resilience and potential.

Facilitating fundraising is one of the core functions of cryptocurrencies. It operates much more efficiently compared

with traditional finance and brings more inclusion. The inclusiveness of cryptocurrencies in financing activities cannot be overstated. Cryptocurrencies allow for more funding opportunities and exposure for core businesses and lower the barriers for investors to fund projects that can potentially change the world. As we consider how to get more people to understand and use cryptocurrencies for fundraising, protecting investors and reducing the risk of fraud without stifling innovation are worthwhile directions for policymakers, industry groups, academics, and project owners to consider and work on.

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JS designed and coordinated this research and prepared the manuscript in entirety.

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