Facultad de Ciencias Económicas y Empresariales
ICADE

A Comparative Analysis of Alternative Financing Methods for Startups in the USA: Crowdfunding, Fintech, Revenue-Based Financing, and Initial Coin Offerings (ICOs)

Autor: Jaime Libano Rubio
Director: Javier Rivas Compains

MADRID | Junio 2025

Index

1. Introduction

1.1 Relevance of the Topic

Over the last decade, the U.S. entrepreneurial ecosystem has undergone a significant transformation in the way new ventures are financed. While venture capital and traditional banking institutions have historically dominated startup financing, the emergence of alternative funding models, such as crowdfunding, fintech solutions, revenue-based financing (RBF), and initial coin offerings (ICOs) has introduced new dynamics that are reshaping access to capital.

These alternative methods have rapidly gained traction due to their flexibility, accessibility, and technological integration. Unlike traditional funding, which often requires extensive collateral or equity dilution, alternative models offer startups a chance to raise capital in more adaptive ways. For example, RBF allows founders to secure financing based on future revenues without relinquishing ownership, while ICOs enable capital acquisition through decentralized blockchain networks.

Understanding the long-term viability of these mechanisms in the U.S. arguably the most dynamic and influential startup market in the world is critical. Many early-stage startups struggle to obtain loans or attract venture investors due to their limited financial history and high risk profile. In this context, alternative financing represents not only an avenue for survival but also a driver for technological innovation, employment, and economic growth.

Furthermore, the regulatory landscape plays a crucial role in the evolution of these financing options. U.S. institutions such as the SEC (Securities and Exchange Commission) have been developing specific frameworks for digital assets, while fintech platforms must comply with federal and state lending laws. The convergence of financial innovation and regulatory complexity makes the study of these models both timely and necessary.

Ultimately, this thesis addresses a double need: to provide clarity on the operational and strategic implications of alternative financing for startups, and to contribute to the broader academic discussion on financial sustainability and innovation in entrepreneurial ecosystems.

1.2 Objectives of the Study

The primary aim of this thesis is to conduct a comparative analysis of the sustainability of four major alternative financing methods used by startups in the United States: crowdfunding, fintech-based

lending, revenue-based financing (RBF), and initial coin offerings (ICOs). These mechanisms represent a significant shift in how early-stage ventures access capital and navigate the funding landscape beyond traditional sources such as banks and venture capital.

To achieve this overarching goal, the study begins by establishing a robust theoretical framework that outlines the fundamental characteristics and operating mechanisms of each financing model. This includes examining how each method functions in practice, what distinguishes it from conventional financing channels, and which types of startups it is best suited for.

The research also seeks to identify the key success and risk factors that affect the long-term viability of these financing alternatives, particularly for startups in early development phases. Factors such as business model fit, regulatory compliance, market validation potential, and transparency will be explored in detail, with reference to existing literature and empirical findings.

Another central objective is to evaluate the real-world impact of these models on startup performance, including growth rates, scalability, and survival. This analysis draws on recent industry data and documented case studies to assess how effectively each financing method supports sustainable business development.

In parallel, the study analyzes the regulatory environment in the United States that governs the use of these alternative financing mechanisms. This includes an in-depth review of relevant frameworks such as the JOBS Act, SEC regulations on securities and equity crowdfunding, compliance norms for fintech lending platforms, and the legal treatment of crypto-assets and tokenized offerings. Understanding how these regulations influence the accessibility and scalability of each financing model is essential for assessing their broader applicability.

Finally, the thesis offers practical recommendations for startup founders and early-stage entrepreneurs. These guidelines are tailored to different industry sectors, business models, and stages of development, helping decision-makers align their financing strategy with their operational and strategic needs.

In addition to these applied goals, this research aims to contribute to the broader academic literature on financial innovation. It also seeks to generate actionable insights for policymakers, investors, and ecosystem stakeholders committed to building more inclusive and resilient startup finance infrastructures.

1.3 Methodology and Sources

This research employs a mixed-methods approach, integrating both theoretical and empirical analyses to comprehensively examine alternative financing methods for startups in the United States.

The theoretical phase involves an extensive review of academic literature and industry reports to construct a robust framework. This framework elucidates the fundamental characteristics, operational mechanisms, benefits, limitations, and regulatory contexts of each alternative financing model, with a particular focus on the U.S. market. Key sources include peer-reviewed journals, publications from financial institutions, and reports from regulatory bodies such as the Securities and Exchange Commission (SEC).

The empirical phase comprises a comparative analysis of real-world case studies of startups that have utilized alternative financing methods. Data is collected from secondary sources, including industry reports, financial databases, and specialized articles. This analysis assesses the performance and sustainability of startups funded through these methods, identifying factors contributing to their success or challenges faced due to financial or regulatory obstacles. Additionally, the study evaluates the impact of current U.S. regulations on the adoption and effectiveness of these financing models, providing practical insights for entrepreneurs and policymakers.

By combining theoretical insights with empirical evidence, this methodology offers a comprehensive understanding of the viability and implications of alternative financing for startups in the U.S.

1.4 Structure of the Thesis

The thesis is organized into six interrelated chapters, each building upon the previous to form a coherent and comprehensive analysis of alternative financing methods in the U.S. startup ecosystem.

Chapter 1, Introduction, sets the foundation for the study by presenting the research topic, defining the primary and specific objectives, and outlining the methodology employed. It also explains the structure of the thesis and the rationale behind the chosen approach, providing a clear roadmap for the reader.

Chapter 2, Theoretical Framework, offers an in-depth exploration of the four financing methods under study: crowdfunding, fintech-based lending, revenue-based financing (RBF), and initial coin offerings (ICOs). This chapter elaborates on the operational mechanisms, benefits, and challenges associated with each model, supported by academic literature and sectoral insights. It also discusses their relevance within the broader spectrum of alternative finance.

Chapter 3, The U.S. Startup Ecosystem Context, examines the current landscape of startup financing in the United States. It identifies major trends in venture capital and alternative finance, analyzes the

capital needs of early-stage companies, and discusses the structural and social barriers that influence funding accessibility. Special attention is given to the influence of entrepreneurial culture and technological innovation on financing practices.

Chapter 4, The U.S. Regulatory Framework, delves into the legal and regulatory environment that governs alternative financing in the country. This chapter analyzes critical legislation such as the JOBS Act, regulatory guidelines issued by the U.S. Securities and Exchange Commission (SEC), and evolving policies related to fintech platforms, revenue-based financing instruments, and crypto-assets. The objective is to understand how regulation shapes the use and scalability of these models.

Chapter 5, Comparative Analysis of Financing Methods, presents a comparative evaluation of the four models studied. It assesses their effectiveness, scalability, and long-term sustainability using industry metrics and illustrative case studies. Additionally, this chapter offers a decision-making framework to help startup founders choose the financing strategy most aligned with their business type, stage of development, and growth objectives.

Chapter 6, Conclusions and Recommendations, summarizes the main findings of the research and distills them into actionable recommendations for startup founders, policymakers, and investors. It also outlines potential avenues for future research, emphasizing the need for continuous academic inquiry into the evolving landscape of financial innovation.

This structured approach ensures a logical and comprehensive investigation into the nature, viability, and regulation of alternative financing methods, thereby enabling a well-rounded understanding of their role in supporting innovation and entrepreneurship in the United States.

2. Theoretical Framework

2.1 Alternative Financing: Definition and Differences from Traditional Financing

In recent years, the landscape of startup financing has undergone a significant transformation. While traditional financing channels such as bank loans, venture capital (VC), and business angels continue to play a dominant role, their limitations have spurred the emergence of alternative models better adapted to the needs of early-stage and innovation-driven ventures. The concept of alternative financing encompasses a broad set of mechanisms that deviate from conventional financial intermediation, typically facilitated through digital platforms and enabled by technological innovation.

2.1.1 Definition and Scope

Alternative financing refers to all forms of capital-raising outside of traditional regulated financial institutions. It typically involves the use of online platforms, data-driven assessment tools, and decentralized investor networks. According to the OECD (2022), alternative finance includes models such as crowdfunding, peer-to-peer lending (P2P), revenue-based financing (RBF), fintech-based credit platforms, and Initial Coin Offerings (ICOs). These mechanisms share common features: lower entry barriers, reduced dependency on formal credit histories, and increased participation from non-institutional investors.

2.1.2 Shortcomings of Traditional Financing

Conventional financing models present multiple barriers for startups. Commercial bank loans require collateral and demonstrable creditworthiness conditions rarely met by new ventures. Additionally, credit approval timelines are often incompatible with the urgency of entrepreneurial activity (Berger & Udell, 2006). Venture capital, while more risk-tolerant, is highly selective and often limited to high-growth technology sectors. VC-backed startups typically undergo rigorous due diligence and must cede equity and control in exchange for funding, a trade-off that may not align with all founders' visions (Gompers & Lerner, 2004).

Table 1: Summarizes the key characteristics that distinguish traditional and alternative financing models:

Feature	Traditional Financing	Alternative Financing
Investor Type	Institutional (banks, VC firms)	Individual investors, online platforms
Collateral Requirement	High (banks)	Low or none
Equity Dilution	Common (VC, angel)	Often avoided (RBF, some crowdfunding)
Speed of Access	Slow	Fast (especially via digita platforms)
Customization and Flexibility	Limited	High
Geographic Constraints	National or regional	Global (especially for ICOs and crowdfunding)

Source: Own elaboration based on OECD (2022), Gompers & Lerner (2004).

2.1.3 Advantages of Alternative Financing

Alternative financing models offer startups greater agility, inclusivity, and scalability. Platforms like Kickstarter or Indiegogo allow creators to validate ideas before market launch, while fintech lenders such as OnDeck provide working capital within days. ICOs extend funding opportunities globally, enabling decentralised innovation to flourish without the intermediation of formal VC channels (Fisch, 2019). Moreover, the modularity of these mechanisms allows for hybrid strategies where a startup might combine crowdfunding with RBF, or use fintech loans to bridge to an equity round.

Another advantage is the potential for democratization of capital, both on the funding side and the investor side. Non-accredited investors can participate in startup funding rounds (subject to regulation), and founders who lack access to elite investor networks can still raise capital via community-driven methods (Block et al., 2018).

2.1.4 Risks and Challenges

However, alternative financing is not without its challenges. The regulatory environment is often ambiguous, particularly in the realm of ICOs, which has led to significant compliance risks. The risk of fraud is also elevated in decentralized systems lacking intermediary oversight. Additionally, alternative methods may not provide the strategic mentorship or scalability of VC involvement.

From a financial planning perspective, alternative financing can introduce complex repayment structures (as in RBF), and success often depends on intensive marketing, as in crowdfunding campaigns. Finally, the volatility of cryptocurrencies can undermine the stability of funds raised via token sales (Zetzsche et al., 2018).

2.2 Crowdfunding: Types, Benefits, and Risks

Crowdfunding has emerged as one of the most prominent models of alternative financing, particularly in the startup ecosystem. It allows entrepreneurs to raise capital from a large number of individual backers through online platforms, bypassing traditional financial intermediaries such as banks or venture capital firms. In doing so, crowdfunding facilitates early-stage investment, democratizes access to funding, and generates early market validation for innovative products and services.

2.2.1 Types of Crowdfunding

There are four main models of crowdfunding, each defined by the nature of investor contribution and the return structure. Donation-based crowdfunding involves contributors providing capital to a project or initiative without expecting any financial return, often driven by philanthropic or community goals. Reward-based crowdfunding, on the other hand, compensates backers with non-financial incentives such as early product access or exclusive services. This model has been specially popular on platforms like Kickstarter and Indiegogo, where it serves as a launchpad for creative and consumer-facing ventures. A more investment-oriented model is equity-based crowdfunding, where contributors receive ownership shares in the company, allowing startups to raise equity capital without going through traditional venture capital channels. However, this model is subject to strict regulatory oversight in the U.S., particularly under the JOBS Act (Cegielska, 2024; SEC, 2024). Lastly, debt-based crowdfunding, also known as crowdlending, entails individuals lending money to a company with the expectation of repayment with interest. This model is frequently adopted by small businesses and startups with predictable cash flows (Ziegler et al., 2023).

Table 2: Summarizes the characteristics of each crowdfunding model:

Crowdfunding Type	Investor Return	Risk Level	Typical Application
Donation	None	Low	Charities, social projects
Reward	Product/Service	Medium	Product launches, creative industries
Equity	Company shares	High	Startups seeking capital and growth
Debt (Lending)	Interest-based repayment	Medium	SMEs with stable revenues

Source: Own elaboration based on Cegielska (2024), Ziegler et al. (2023).

2.2.2 Benefits of Crowdfunding

The advantages of crowdfunding are numerous and strategically significant. One of its most compelling benefits is the accessibility it offers to capital, as it removes many of the traditional barriers to entry and allows entrepreneurs to pitch their ideas directly to the public. Additionally, a successful crowdfunding campaign provides instant market validation by gauging customer interest before a full-scale product launch. This can inform further product development and investment decisions. Crowdfunding also serves as a powerful marketing tool, often generating media attention and creating early communities around a product or brand. Furthermore, it builds lasting relationships between startups and their early backers, who frequently evolve into repeat customers or even future equity investors (Block et al., 2018).

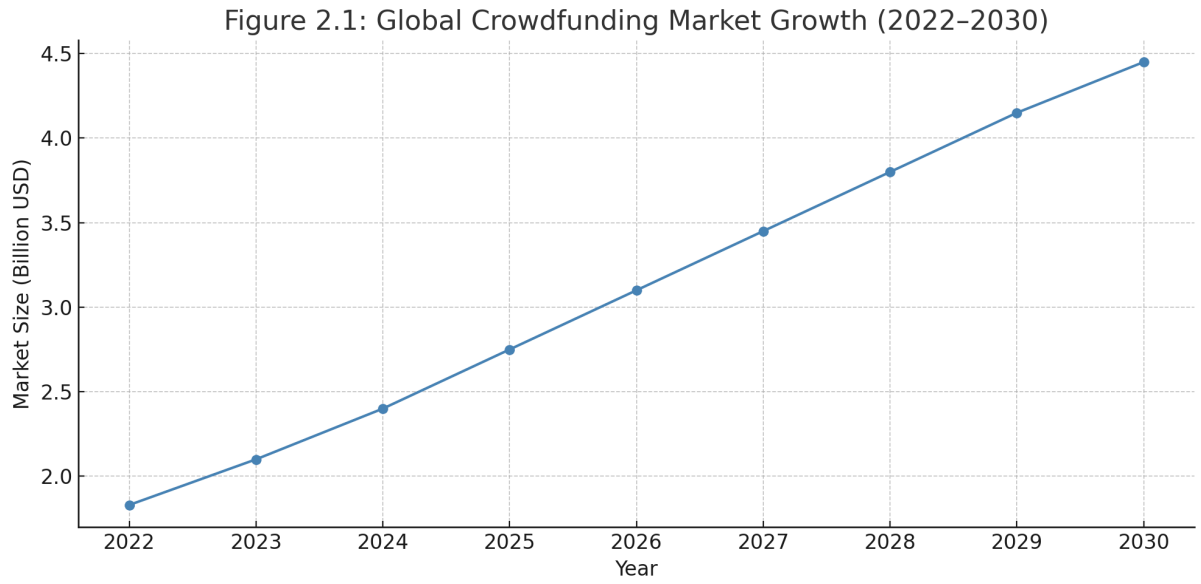
2.2.3 Risks and Challenges

Nevertheless, crowdfunding is not without its risks. A significant proportion of campaigns fail to meet their funding goals, which can delay a product launch or damage the company's reputation. Moreover, the public exposure of business ideas through campaign platforms can result in imitation or intellectual property theft, particularly if legal protections such as patents or trademarks are not in place. Fulfilling rewards and managing a large, diverse group of backers can also create operational challenges. Startups must manage logistics, delivery timelines, and customer support effectively, often without having established systems in place. Regulatory complexity presents another hurdle specially in equity and lending models, where companies must comply with securities laws that may limit who can invest and how much can be raised (SEC, 2024).

2.2.4 Market Trends and Growth

The global crowdfunding market has seen steady growth over the past decade, driven by the rise of fintech platforms, increased internet penetration, and changing investor preferences. According to Fortune Business Insights (2023), the crowdfunding market was valued at USD 1.83 billion in 2022 and is projected to grow to USD 4.45 billion by 2030, reflecting a compound annual growth rate (CAGR) of 13.5%. This indicates a significant global shift toward decentralized and community-based funding channels.

Figure 1: Global Crowdfunding Market Growth (2022–2030)



Source: Fortune Business Insights, 2023

2.3 Fintech: Digital Lending and Payment Solutions

The term "fintech" refers to the integration of technology into offerings by financial services companies to improve their use and delivery to consumers. For startups, fintech has become an essential avenue for obtaining early-stage or growth capital, particularly when traditional lending channels remain inaccessible due to a lack of credit history, collateral, or profitability (Global Legal Insights, 2024).

One of the most transformative impacts of fintech lies in online lending platforms. These platforms such as Kabbage, OnDeck, or Funding Circle, leverage real-time data analytics, machine learning, and API integrations to evaluate the creditworthiness of borrowers more efficiently than traditional banks.

For example, instead of relying on credit scores alone, fintech lenders assess transactional data, social media activity, and digital invoices to build a more holistic risk profile (Zhang & Liu, 2016). This innovation has significantly expanded credit access to SMEs and startups that previously fell outside the scope of conventional lending.

In parallel, digital payment solutions such as Stripe, Square, and PayPal have not only facilitated seamless transactions but also embedded financial services such as working capital loans, payroll processing, and fraud detection. Stripe, for instance, has extended its services to include capital advances and real-time analytics for revenue forecasting, enabling startups to make data-driven financial decisions (Stripe, 2024).

However, this rapid digitalization introduces several regulatory and operational risks. Firstly, data privacy concerns have escalated as companies process vast volumes of sensitive financial and behavioral data. Fintech lenders are increasingly scrutinized under state and federal laws, such as the Gramm-Leach-Bliley Act and the California Consumer Privacy Act (CCPA) to ensure consumer data is handled responsibly (ICLG, 2024). Secondly, the fraud risk inherent in automated and anonymous digital platforms necessitates constant updates in security protocols and regulatory oversight. The Consumer Financial Protection Bureau (CFPB, 2024) has begun implementing federal oversight mechanisms for large nonbank entities offering digital payment services.

A recent example of regulatory adaptation is the declining popularity of buy-now-pay-later (BNPL) models. These services, once lauded for expanding access to consumer credit, have faced regulatory scrutiny for insufficient transparency and rising default rates. As a result, fintech firms have shifted toward more sustainable lending structures, such as equated monthly installment (EMI) loans and embedded financing integrated into SaaS platforms (Economic Times, 2025).

In conclusion, fintech lending and payment systems have profoundly democratized access to finance for startups. They are specially effective for ventures requiring fast, flexible, and scalable funding, although their usage demands careful attention to compliance, transparency, and user trust.

2.4 Revenue-Based Financing (RBF): Characteristics and Applications

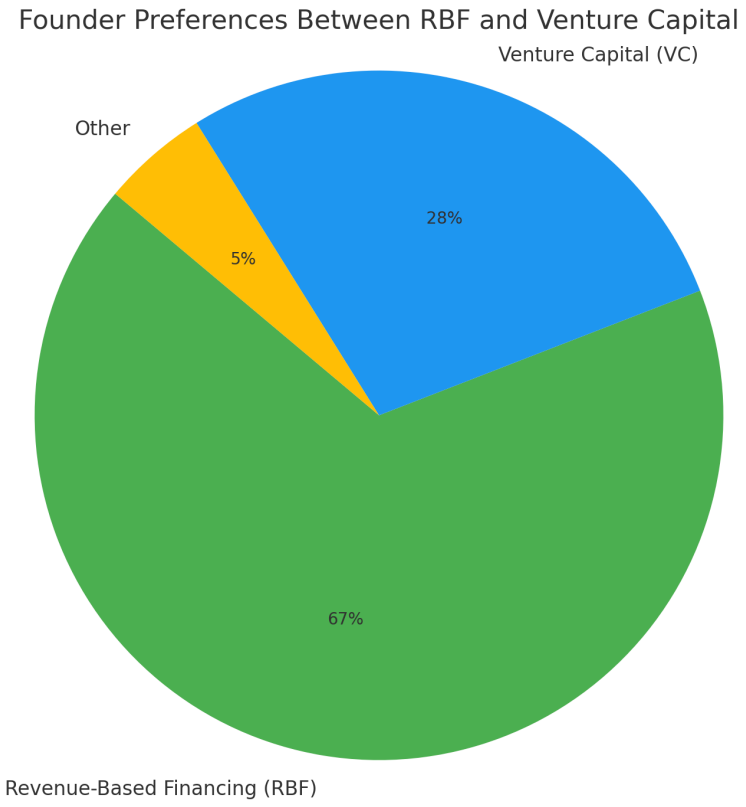
Revenue-Based Financing (RBF) has emerged as a hybrid model of startup financing, bridging the advantages of both equity and debt structures. Under RBF, an investor provides upfront capital to a company in exchange for a fixed percentage of monthly revenues, continuing until a predefined repayment cap typically 1.3x to 3x the original investment is met (Capchase, 2023).

One of the key appeals of RBF is its non-dilutive nature. Entrepreneurs can retain full control of their business while still accessing growth capital. This is particularly attractive for founders who are

cautious about ceding equity to external investors, specially in early stages when valuation metrics may be unfavorable (Gilion, 2023). Moreover, the flexible repayment structure which scales in line with revenue protects startups from default during low-income months, as payments are inherently adjusted to the company's cash flow.

RBF is particularly suited to SaaS companies, e-commerce platforms, and other startups with recurring revenues and high gross margins. For example, companies using Stripe or Shopify often integrate with RBF providers like Clearco or Capchase to automate repayments based on real-time revenue data. In a 2023 study, Uncapped reported that 67% of founders chose RBF over venture capital to avoid loss of control, and over 40% cited repayment flexibility as a primary reason (Uncapped, 2023).

Figure 2: Founder Preferences Between RBF and Venture Capital.



Source: Uncapped (2023)

Nonetheless, RBF is not without drawbacks. The total cost of capital can be higher than traditional bank loans, especially for businesses with slow growth. Because repayments are tied to revenue, prolonged low-income periods can extend the repayment timeline significantly, impacting the company’s financial planning. Additionally, investors require detailed access to financial metrics, necessitating robust and transparent accounting systems.

Another challenge lies in regulatory fragmentation. While RBF is not classified as a loan under most U.S. laws therefore escaping certain lending regulations several states have introduced RBF-specific disclosure laws, such as New York and California, which now require providers to specify equivalent annualized rates (K&L Gates, 2022). These evolving regulations aim to protect small businesses from opaque contract terms and unexpected costs.

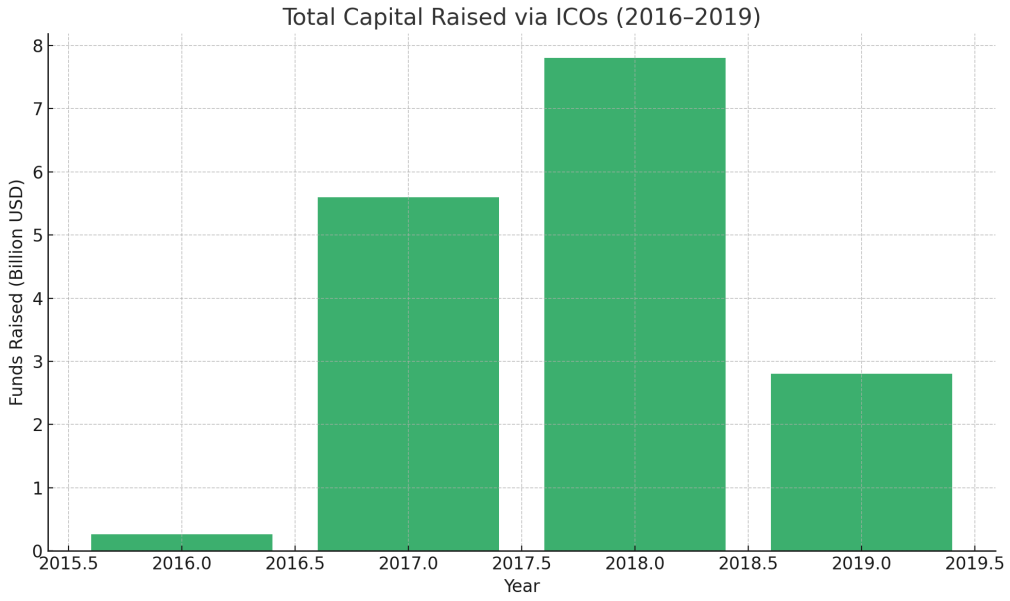
Despite these challenges, RBF continues to gain traction among capital-efficient startups seeking scalable, non-equity funding. It is a powerful instrument when used strategically and under appropriate revenue conditions, offering a middle ground between venture capital's dilution and traditional debt's rigidity.

2.5 Initial Coin Offerings (ICOs): Financing through Crypto-assets

Initial Coin Offerings (ICOs) have revolutionized the landscape of startup financing, particularly for blockchain-native ventures and decentralized applications (dApps). By issuing digital tokens on a blockchain network, startups can raise capital in a decentralized, peer-to-peer environment without relying on banks or traditional capital markets. These tokens may represent utility such as access to a platform, service, or voting rights or serve as instruments of value exchange and investment.

The appeal of ICOs stems not only from their speed and scale, but also from the global reach they enable. For example, in 2017 alone, more than 430 ICOs were conducted globally, raising an aggregate of over $5.6 billion (Howell et al., 2018). This growth was driven by the convergence of smart contract platforms like Ethereum, an enthusiastic crypto community, and the rise of decentralized finance (DeFi) ecosystems. Startups could sidestep conventional gatekeepers and raise funds from thousands of contributors worldwide, with minimal regulatory friction at least initially.

Figure 3: Total Capital Raised via ICOs



Source: Howell et al. (2018), NBER Working Paper

However, the unregulated nature of ICOs quickly attracted speculative behavior and fraudulent actors, prompting regulatory crackdowns. The SEC's 2017 DAO report classified many token offerings as unregistered securities, and subsequent legal actions established stricter compliance expectations. As a result, many legitimate projects began shifting toward Security Token Offerings (STOs) and Initial Exchange Offerings (IEOs) models that maintain some of the advantages of ICOs while incorporating regulatory oversight.

Despite the market contraction, ICOs remain a relevant option for certain types of startups, particularly those creating tokenized platforms, infrastructure for Web3, or decentralized protocols. The success of an ICO today depends on much more than hype; it requires a well-developed whitepaper, open-source code audits, strategic partnerships, and regulatory compliance planning. In short, while ICOs are no longer the "Wild West" of startup financing, they continue to serve as a powerful tool for blockchain-native innovation when implemented responsibly.

2.6 Common Limitations and Critical Success Factors

While the rise of alternative financing options offers startups new pathways to growth, these methods introduce unique operational, reputational, and regulatory risks that must be carefully assessed. Unlike traditional equity or bank financing, where oversight, documentation, and due diligence are rigorously enforced, alternative financing often shifts the burden of strategy and compliance directly onto the founding team.

2.6.1 Common Limitations

Alternative financing methods offer increased accessibility and innovation but also come with inherent limitations that founders must consider carefully.

One key risk is reputational. Public campaigns, especially those run through platforms like Kickstarter or conducted via token presales, subject startups to heightened visibility and scrutiny. If a company fails to deliver on its promises, misses key milestones, or engages in questionable marketing practices, the resulting backlash can inflict long-term reputational harm. This erosion of trust can damage not only current fundraising efforts but also future access to capital. As Mollick (2014) notes, the same transparency that fuels early momentum can quickly turn into public criticism if expectations are not met.

Another significant limitation lies in the lack of financial and legal expertise among early-stage entrepreneurs. Many founders underestimate the complexities of designing tokenomics, negotiating RBF agreements, or structuring investor obligations in a compliant manner. Without access to adequate legal or financial advice, they risk entering into unfavorable or legally ambiguous contracts, violating investor protections, or overlooking taxation and reporting responsibilities. These missteps, as Boreiko and Sahdev (2018) emphasize, can compromise the financial stability of the startup and deter institutional interest.

Technology dependence is another pressing challenge. Many alternative financing models rely heavily on third-party infrastructure, including online lending platforms, smart contracts, or blockchain ecosystems. This introduces systemic vulnerabilities. A platform failure, cyberattack, or even a software bug could jeopardize the integrity of fundraising operations, potentially freezing capital or eroding investor trust.

Lastly, the fragmented regulatory environment complicates cross-border financing. Laws governing crowdfunding, token sales, and digital lending vary not only by country but often by state within the U.S. This patchwork of regulation makes compliance difficult and exposes startups to legal risks, particularly when classifying financial instruments such as tokens. A utility token in one jurisdiction might be considered a security in another, creating uncertainty and barriers to international fundraising.

2.6.2 Critical Success Factors

Despite these limitations, several critical success factors can improve the sustainability and performance of startups using alternative financing. Transparency and disciplined reporting are essential. Founders who regularly communicate with backers, provide financial updates, and disclose

risks and timelines tend to foster trust and secure follow-on funding. Transparent behavior also enhances their credibility with institutional investors and regulatory bodies.

Equally important is aligning the financing model with the business structure and revenue model. The most successful startups strategically match their needs with the appropriate vehicle. A B2C startup with a passionate user base might thrive on equity crowdfunding, while a SaaS platform with recurring revenues is more likely to succeed with revenue-based financing. According to Gyger (2024), model-business alignment is one of the strongest predictors of long-term viability.

Another factor is the integration of a robust legal and compliance strategy from the outset. Founders who seek early legal advice, conduct Know Your Customer (KYC) and Anti-Money Laundering (AML) checks, and ensure data protection compliance under frameworks like GDPR are more likely to maintain regulatory approval and attract reputable investors.

Finally, team quality remains a cornerstone of success. Regardless of the financing model, investors primarily back strong, capable teams with a clear vision, operational excellence, and early traction. Startups that demonstrate execution ability, market insight, and governance maturity are more likely to access sustainable financing and long-term growth.

3. The U.S. Startup Ecosystem Context

3.1 Recent Trends in Startup Financing

The U.S. startup ecosystem is one of the most dynamic and well-capitalized in the world, but in recent years it has undergone substantial changes, particularly in terms of funding availability and investor behavior. Between 2022 and 2024, venture capital (VC) investment figures reflect both volatility and resilience in response to macroeconomic shifts, technological disruptions, and sector-specific momentum.

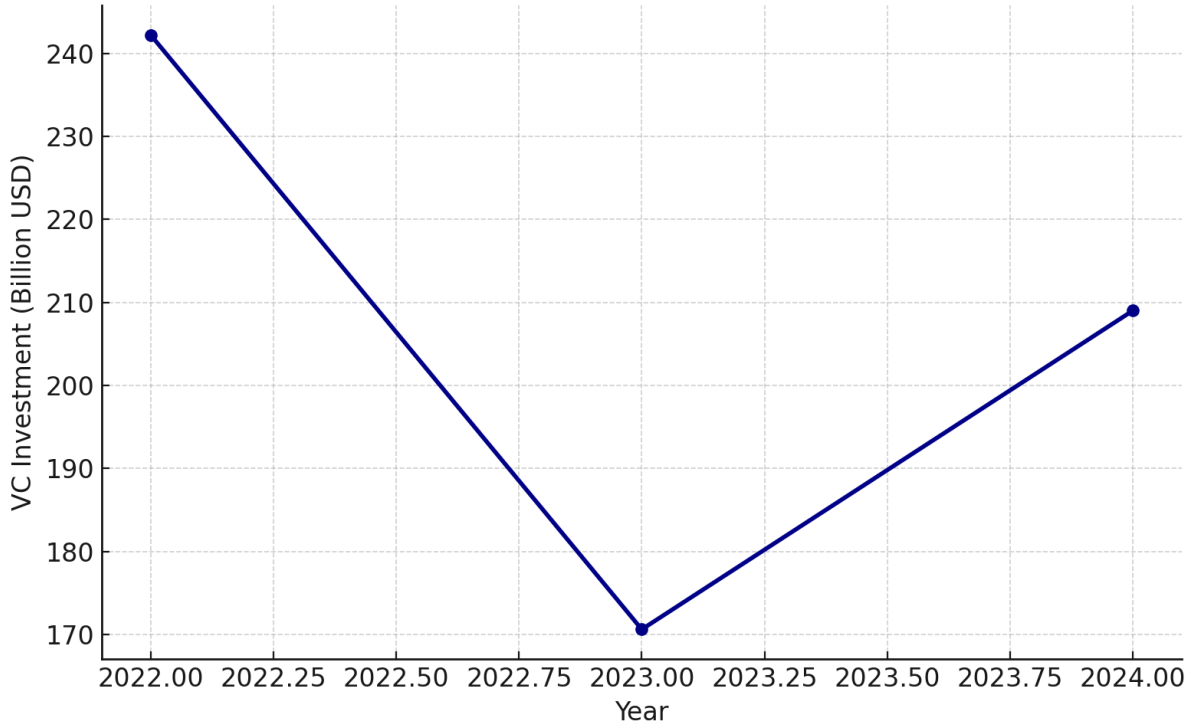
In 2022, VC investment in the United States peaked at approximately $242.2 billion, fueled by post-pandemic growth optimism, low interest rates, and a strong appetite for disruptive innovation (National Venture Capital Association [NVCA], 2023). However, in 2023, this momentum significantly declined, with VC investment falling to $170.6 billion, a contraction of nearly 30%. This downturn coincided with tightening monetary policies, inflationary pressures, and widespread caution in financial markets.

Despite this, 2024 marked the beginning of a recovery, as funding volumes increased to approximately $209 billion, largely driven by renewed investor interest in frontier technologies particularly artificial intelligence (AI) and generative machine learning. According to data compiled by KPMG (2025) and Crunchbase (2024), AI-related startups alone accounted for an estimated 46.4% of total VC capital deployed in 2024, with flagship investments in firms like OpenAI and xAI receiving substantial backing from institutional and sovereign funds alike. These figures highlight a pronounced shift in capital allocation toward startups that operate at the intersection of deep tech and software scalability.

Nonetheless, this rebound in funding has not been homogeneous across stages. Late-stage funding rounds (Series C and beyond) showed notable growth, while early-stage investments (seed and pre-seed) remained relatively stagnant. Data from AngelList (2024) indicates that despite a 9% year-on-year increase in Series B+ deals in 2024, seed funding volumes decreased slightly by 2%, suggesting that investors are prioritizing startups with proven product-market fit and early revenue over more speculative ventures.

This trend underscores a risk-mitigation strategy by venture capital firms, reflecting a broader hesitation to engage with high-risk, unproven concepts in a climate of global financial uncertainty. Consequently, while elite founders with strong networks and credentials continue to access capital, many emerging entrepreneurs face prolonged fundraising cycles or settle for suboptimal terms.

Figure 4. Evolution of U.S. Startup Financing (2022–2024)



Note: This line chart depicts total annual venture capital investment in U.S. startups. After a decline in 2023, capital rebounded in 2024, mainly due to the AI sector's rise.

Source: Crunchbase. (2024). Startup funding trends in North America: Q1 2024 analysis.

3.2 Capital Needs and Access Barriers

While the aggregate volume of VC investment remains significant, access to capital is far from evenly distributed. Startups at early developmental stages, those operating outside of major tech hubs, or those led by underrepresented founders often face systemic barriers to financing.

Lack of collateral, limited credit histories, and volatile revenue models are among the key reasons why traditional financing institutions typically refrain from engaging with early-stage startups. Although alternative methods like fintech lending and crowdfunding have alleviated some of these bottlenecks, a large share of seed-stage entrepreneurs continue to rely on personal savings, angel investors, or incubators to finance initial operations (Crunchbase, 2024).

Sector concentration is another pressing issue. The AI boom has led to an overconcentration of capital within a narrow vertical. According to the KPMG Venture Pulse 2025, more than 45% of all VC deals above $10 million in the first half of 2024 were directed toward AI and machine learning startups.

While this indicates a bullish stance on transformative tech, it also crowds out other sectors such as cleantech, education, and consumer platforms that may offer significant societal value but lack short-term commercial appeal.

A third and particularly severe challenge is gender disparity in capital access. Despite years of discourse on inclusive investment practices, the funding gap persists at alarming levels. PitchBook (2023) reports that in 2021, only 2.0% of all U.S. venture capital went to startups founded solely by women, while teams composed of both male and female founders attracted approximately 14.8%. The remaining lion's share over 83% went to all-male founding teams.

This unequal distribution of funding reflects broader systemic issues, including unconscious bias among investors, lower representation of women in technical and executive roles, and the lack of female partners in VC firms who can champion diverse teams. These barriers are further compounded by geographic inequality: Silicon Valley, New York, and Boston continue to dominate capital flows, while regions like the Midwest or Southeast attract less than 10% of annual VC investment, according to NVCA (2023).

To navigate this landscape, startups increasingly adopt alternative financing strategies, including revenue-based financing (RBF), fintech lending, and hybrid models combining grants and convertible notes. These methods offer flexibility and inclusivity, though they are not yet scaled to rival institutional VC in terms of volume.

In summary, while the aggregate figures may paint a picture of recovery and growth, underneath lies a fragmented and unequal capital landscape. Bridging this gap is critical not only for economic efficiency but also for fostering a truly inclusive innovation ecosystem.

3.3 Impact of Entrepreneurial and Technological Culture

The entrepreneurial culture in the United States is widely regarded as one of the most vibrant and influential in the world, serving as a catalyst for both economic expansion and technological breakthroughs. This culture is not merely a reflection of access to capital, but also the result of deep-rooted values such as risk tolerance, innovation-driven competition, and a favorable policy environment. Across decades, these elements have produced a network of interconnected startup ecosystems characterized by rapid prototyping, investor founder alignment, and global scalability.

Key metropolitan hubs such as Silicon Valley, New York City, and Boston have long served as the nerve centers of American entrepreneurship. Silicon Valley, in particular, stands as the most

emblematic of startup success, with mature infrastructure, highly concentrated venture capital availability, elite universities, and a dense cluster of experienced founders and advisors. In 2024, the San Francisco Bay Area alone attracted $29.45 billion in startup funding, a figure that represents a 54% year-over-year increase from 2023 (Carta, 2024). This surge was largely driven by the explosion of interest in artificial intelligence and its applications across sectors.

In contrast, emerging startup hubs such as Austin, Texas are challenging the traditional geographic concentration of capital. In 2025, Austin startups secured $2.4 billion in VC funding, an extraordinary 244% increase compared to the previous year (MySanAntonio, 2025). Several structural advantages have contributed to this regional momentum, including:

1. Lower operational and living costs, which make talent acquisition and infrastructure more affordable.

2. A favorable regulatory environment, particularly in areas like digital finance, remote work laws, and local taxation.

3. A rapidly expanding base of skilled technical professionals, often sourced from the University of Texas and incoming talent from California.

According to GoingVC (2024), other cities gaining prominence include Denver, Raleigh-Durham, and Miami, which are leveraging public-private partnerships, tax incentives, and quality-of-life improvements to attract both capital and human resources.

3.3.1 Technological Culture and Its Influence on Financing Models

The evolution of technological infrastructure and culture has not only enabled the growth of startups, but has also transformed the mechanisms by which they access capital. Emerging technologies, specially blockchain, machine learning, and Web3 platforms have reshaped investor expectations and facilitated novel financing channels beyond conventional venture capital.

For instance, the development of blockchain-based financing has led to the proliferation of Initial Coin Offerings (ICOs), tokenized crowdfunding, and decentralized autonomous venture capital (DAOs). These instruments bypass traditional financial intermediaries, enabling founders to directly access global investor pools through secure, programmable smart contracts (Fisch, 2019). Startups like Tezos, Brave, and Filecoin collectively raised hundreds of millions of dollars through ICOs,

creating an entirely new funding paradigm that merges capital formation with community engagement.

Similarly, AI-based platforms are now being used to underwrite lending decisions, automate investor matching, and simulate funding scenarios based on real-time performance data. This reflects a feedback loop between technological adoption and financial innovation, wherein the tools startups build are also reshaping how they raise funds.

The cultural shift toward openness, decentralization, and digital-native business models has also increased founders' awareness of alternative paths to growth. As founders gain exposure to non-equity capital, bootstrapping strategies, and peer-to-peer financing models, the U.S. startup ecosystem becomes increasingly diversified in terms of how innovation is capitalized.

4. U.S. Regulatory Framework

4.1 Regulation of Crowdfunding (JOBS Act, SEC)

The Jumpstart Our Business Startups (JOBS) Act, enacted in 2012, significantly reformed the landscape for startup financing in the United States. Title III of the JOBS Act introduced Regulation Crowdfunding, allowing eligible companies to offer and sell securities through crowdfunding platforms registered with the Securities and Exchange Commission (SEC). Under Regulation Crowdfunding, companies can raise up to $5 million within a 12-month period. These offerings must be conducted through SEC-registered intermediaries, such as broker-dealers or funding portals. Investors are subject to investment limits based on their income and net worth to mitigate risk. Additionally, securities purchased in a crowdfunding transaction generally cannot be resold for one year, enhancing investor protection .

Between May 2016 and December 2024, over 8,400 offerings were initiated by more than 7,100 issuers, seeking approximately $8.4 billion in aggregate. Of these, more than 3,800 offerings reported proceeds totaling approximately $1.3 billion. This data underscores the growing importance of crowdfunding as a viable financing avenue for startups .

Table 3. Summary of Regulation Crowdfunding Provisions

Provision	Details
Maximum Raise	$5 million within a 12-month period
Intermediaries	SEC-registered broker-dealers or funding portals
Investor Limits	Based on income and net worth
Resale Restrictions	Securities generally restricted from resale for one year
Disclosure Requirements	Financial statements, business description, use of proceeds, e

Source: SEC Regulation Crowdfunding

4.2 Legal Environment for Fintechs and Digital Lending

The regulatory framework for fintech companies in the U.S. is multifaceted, involving both federal and state oversight. Fintech entities offering banking services may be subject to regulation by federal agencies such as the Office of the Comptroller of the Currency (OCC) or state banking regulators. Those providing securities services may need to register with the SEC .

Furthermore, fintech companies involved in lending activities must navigate a complex web of state laws. For instance, many states require loan servicers and debt collectors to obtain licenses to perform their contractual obligations in marketplace lending arrangements. Texas, for example, mandates licensing for entities charging interest rates exceeding ten percent annually .

At the federal level, the Consumer Financial Protection Bureau (CFPB) plays a pivotal role in supervising nonbank entities offering digital funds transfer and payment wallet apps. In 2024, the CFPB finalized a rule to supervise the largest nonbank companies in this space, ensuring they adhere to federal laws akin to traditional financial institutions .

4.3 Regulation of Revenue-Based Financing (RBF) and Regulatory Gaps

Revenue-Based Financing (RBF) is an alternative financing model where investors provide capital to a company in exchange for a percentage of future revenues until a predetermined return is achieved. Unlike traditional loans, RBF agreements are structured as the purchase of future receivables, often exempting them from certain lending regulations.

However, the regulatory landscape for RBF in the U.S. is evolving. As of 2022, four states Virginia, New York, California, and Utah had enacted laws specifically regulating RBF agreements. These laws typically require RBF providers to register and disclose deal terms, including fees and finance charges, to promote transparency and protect small businesses .

Despite these developments, there remains a lack of uniform federal regulation for RBF, leading to potential legal ambiguities. For instance, mischaracterizing RBF agreements could expose providers to claims under state Unfair and Deceptive Acts and Practices (UDAP) laws. Therefore, RBF providers must carefully structure their agreements to maintain compliance and avoid reclassification as traditional loans.

Table 4. State-Level RBF Regulations

State	Regulation Enacted	Key Provisions
Virginia	Yes	Mandatory registration and disclosure requirements
New York	Yes	Disclosure of fees and finance charges
California	Yes	Licensing and transparency mandates
Utah	Yes	Specific compliance obligations for RBF providers

Source: K&L Gates

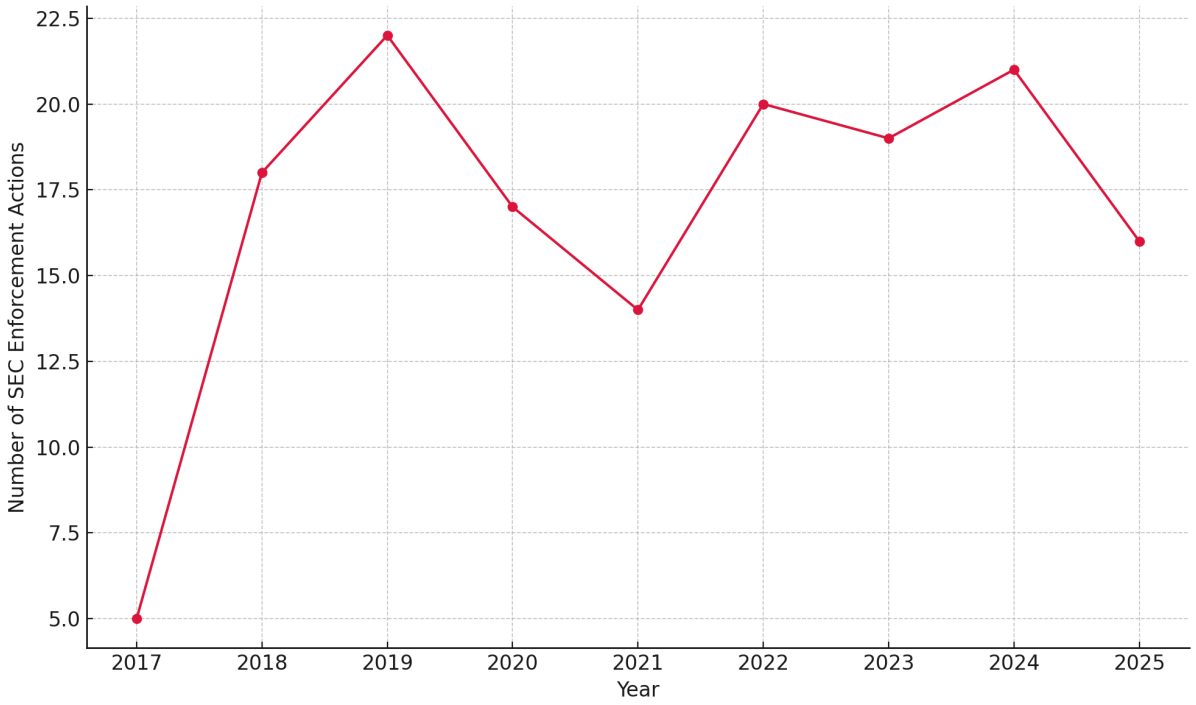
4.4 ICOs and Crypto Assets: Regulatory Framework, SEC, and Legal Challenges

Initial Coin Offerings (ICOs) have emerged as a novel method for startups to raise capital by issuing digital tokens. However, the regulatory treatment of ICOs in the U.S. has been a subject of considerable debate. In 2017, the SEC released the "DAO Report," concluding that certain digital tokens qualify as securities under the Howey Test and are therefore subject to federal securities laws .

The SEC has since taken enforcement actions against several ICOs for conducting unregistered securities offerings. Notably, in May 2025, the SEC voluntarily dismissed its lawsuit against Binance, signaling a potential shift in regulatory approach under the current administration . This move aligns with broader efforts to foster a more crypto-friendly environment, as evidenced by the formation of a "crypto task force" aimed at developing a supportive regulatory framework for digital assets .

Despite these developments, the regulatory landscape for ICOs remains complex and evolving. Companies considering ICOs must navigate federal securities laws, ensure compliance with anti-money laundering regulations, and stay abreast of shifting enforcement priorities.

Figure 5. SEC Enforcement Actions on ICOs (2017–2025)



Note: This chart depicts the number of SEC enforcement actions related to ICOs over the specified period.

Source: U.S. Securities and Exchange Commission (SEC). (2025). *Enforcement actions related to digital assets and ICOs: Annual report 2025*.

5. Comparative Analysis of Alternative Financing Methods

5.1 Introduction

In the ever-evolving landscape of startup financing, alternative methods have become increasingly prominent as viable and often essential tools for securing capital outside the confines of traditional banking systems or institutional venture capital (VC). These innovative financing mechanisms have emerged in response to both structural limitations of conventional finance and the growing demand for more flexible, inclusive, and scalable funding options within the entrepreneurial ecosystem.

This chapter provides a comparative analysis of four of the most influential alternative financing models currently adopted in the U.S. startup context: Crowdfunding, Fintech-Based Lending, Revenue-Based Financing (RBF), and Initial Coin Offerings (ICOs). Each of these methods presents a unique set of features that address specific needs and limitations encountered by early-stage ventures. Crowdfunding, for example, allows startups to tap into collective investment through digital

platforms, leveraging community support as a financial and branding strategy. Fintech lending offers automated, data-driven credit solutions, reducing the dependency on traditional underwriting processes. RBF introduces a non-dilutive funding model where repayments are tied to company revenues, offering flexibility and scalability. Finally, ICOs provide access to global capital through blockchain-enabled token sales, representing the forefront of decentralized finance.

This section aims to critically evaluate these methods based on their operational mechanisms, practical benefits, regulatory implications, and strategic applicability. By doing so, it offers founders, investors, and policymakers a nuanced framework to assess which models align best with specific startup profiles and growth trajectories.

5.2 Crowdfunding

5.2.1 Definition and Mechanisms

Crowdfunding is a financing method that enables entrepreneurs to raise relatively small amounts of capital from a large pool of individuals, usually through online platforms. The essence of crowdfunding lies in its decentralized and participatory model, which democratizes investment by reducing reliance on traditional gatekeepers such as banks and VC firms. Several crowdfunding formats exist, including reward-based, donation-based, debt-based (crowdlending), and equity-based models. Reward-based crowdfunding typically offers backers a tangible product or service in exchange for their support, while donation-based models are philanthropic in nature. Debt-based crowdfunding allows investors to earn interest on loans they provide to startups, and equity-based crowdfunding gives them ownership shares in return for their capital (Cegielska, 2024).

5.2.2 Advantages

One of the primary advantages of crowdfunding is its accessibility. It opens funding opportunities to entrepreneurs who might otherwise be excluded from traditional capital markets due to lack of collateral, early-stage risk profiles, or insufficient networking connections. This inclusivity has made crowdfunding particularly attractive to creative industries, social enterprises, and consumer-facing startups.

Additionally, crowdfunding serves as a powerful tool for market validation. A successful campaign signals real consumer interest and can function as a proxy for demand, thereby reducing product-market uncertainty. Platforms such as Kickstarter and Indiegogo have become incubators for testing ideas in live environments with real feedback loops.

Another key benefit is the capacity for community building. Crowdfunding often creates an engaged audience of early adopters and brand advocates who contribute not just capital but also promotion, feedback, and social proof. This early community can later be leveraged to accelerate word-of-mouth marketing and even secure additional funding from larger investors impressed by grassroots support.

5.2.3 Limitations

Despite these advantages, crowdfunding also presents a number of limitations and challenges. First, the regulatory landscape imposes constraints, particularly for equity crowdfunding. In the United States, such campaigns fall under the purview of the Securities and Exchange Commission (SEC) and are governed by Title III of the Jumpstart Our Business Startups (JOBS) Act. This regulation sets caps on the amount that can be raised and imposes eligibility and disclosure requirements on both issuers and investors (SEC, 2024).

Moreover, the execution of a successful campaign requires significant preparation and marketing expertise. Campaigns must invest heavily in visual content, narrative crafting, and outreach strategies to stand out in increasingly saturated platforms. Without a well-planned and professionally executed campaign, even promising projects can fail to attract attention or reach funding thresholds.

There are also intellectual property risks inherent in public exposure. Presenting a product idea to the crowd can result in imitation by competitors, particularly if the entrepreneur lacks patent protections or has not formalized their legal claims to the innovation.

5.2.4 Applicability

Crowdfunding is most effective for startups with consumer-oriented products or services that are easily communicated and emotionally compelling to a broad audience. It performs particularly well for hardware, design, and lifestyle products with visually engaging attributes. However, its utility is limited for business-to-business (B2B) ventures, startups requiring large initial capital outlays, or those operating in complex regulatory environments such as biotech or fintech.

In conclusion, crowdfunding represents a powerful alternative to traditional financing, enabling entrepreneurs to validate ideas, access capital, and build a loyal customer base. However, it is not a universal solution and requires strategic planning, legal awareness, and marketing acumen to execute effectively. Its role within the broader financing ecosystem should therefore be seen as complementary rather than a substitute for institutional funding.

5.3 Fintech-Based Lending

5.3.1 Definition and Mechanisms

Fintech-based lending refers to digital credit solutions provided by non-traditional financial institutions that leverage advanced technology to streamline and optimize the lending process. These platforms employ data-driven credit models that go beyond conventional credit scores, analyzing real-time data from diverse sources including accounting software, transaction history, e-commerce platforms, and even social media activity. Companies such as Kabbage, OnDeck, and Funding Circle exemplify this approach, offering online platforms where startups can apply for loans, receive decisions in hours, and access funding within days (Global Legal Insights, 2024). This model represents a shift away from rigid and paper-intensive banking procedures, facilitating faster access to capital, especially for digitally-native startups and entrepreneurs outside the traditional financial system.

5.3.2 Advantages

1. Speed and Convenience: One of the most significant benefits of fintech lending lies in its ability to deliver rapid financing. In contrast to banks, which often require weeks to process and underwrite loans, fintech lenders can automate decision-making using algorithmic assessments, drastically reducing wait times. This immediacy can be critical for early-stage startups that need to capitalize on time-sensitive opportunities, such as product launches, inventory procurement, or marketing campaigns.
2. Alternative Credit Assessment: By incorporating non-traditional metrics such as cash flow history, payment behavior, and platform sales data, fintech platforms enable credit access for businesses without extensive credit histories. This is especially valuable for new entrepreneurs, small business owners, and gig economy participants who are often marginalized by legacy systems.
3. Customization and Flexibility: Many fintech lenders tailor loan products based on the unique risk profile and cash flow cycle of the borrower. For instance, repayments can be structured to align with monthly revenue trends or seasonal variations, providing greater financial stability and predictability for startups managing fluctuating income streams.

5.3.3 Limitations

The rapid evolution of fintech services has outpaced regulatory frameworks, resulting in a patchwork of state and federal laws. While oversight bodies like the CFPB have started issuing compliance guidelines, the lack of standardized regulation exposes both borrowers and lenders to potential legal

and operational risks. For fintech firms operating across multiple states, this regulatory fragmentation adds compliance complexity and cost (CFPB, 2024). The ease of access to credit while beneficial in theory can lead some startups to take on unsustainable debt, especially if revenue projections are overly optimistic or market conditions shift unexpectedly. Without financial guidance, borrowers may misjudge repayment capacity and fall into a cycle of short-term borrowing. Finally, the reliance on vast amounts of sensitive financial and behavioral data creates cybersecurity challenges. A single data breach could have catastrophic consequences for both fintech platforms and their clients. Maintaining compliance with data privacy laws, such as the California Consumer Privacy Act (CCPA), is essential but costly and complex.

5.3.4 Applicability

Fintech lending is particularly suitable for early-stage startups that require immediate, flexible funding but may not qualify for traditional bank loans due to insufficient credit history or collateral. It is also ideal for digitally-native businesses like online retailers, SaaS platforms, and service providers operating on short cash cycles. However, it is less effective for capital-intensive industries such as manufacturing, biotech, or infrastructure-heavy ventures, where long-term financing needs exceed the scope of short-term digital lending.

5.4 Revenue-Based Financing (RBF)

5.4.1 Definition and Mechanisms

Revenue-Based Financing (RBF) is a hybrid funding model whereby an investor provides upfront capital to a business in exchange for a fixed percentage of its future monthly revenues. This arrangement continues until the investor has received a pre-agreed repayment cap, typically ranging from 1.3 to 2 times the original investment (Capchase, 2023). Unlike conventional loans, RBF does not involve interest rates or fixed repayment schedules. Instead, repayments fluctuate based on actual performance, making the model highly attractive for startups with recurring revenue streams and growth potential. Firms such as Gilion, Capchase, and Uncapped specialize in offering RBF solutions to SaaS companies and digital enterprises.

5.4.2 Advantages

1. Non-Dilutive Capital: One of RBF's defining features is that it allows founders to access growth capital without surrendering equity or decision-making power. This is particularly important for entrepreneurs focused on long-term control or those aiming to maximize valuation in future equity rounds.

2. Revenue-Aligned Repayments: Since payments are tied directly to monthly revenue, startups are not locked into rigid amortization schedules. During slower months, repayments decrease, reducing financial strain and lowering the risk of default.
3. Aligned Investor Incentives: Unlike traditional lenders who are repaid regardless of performance, RBF investors are incentivized to support sustainable growth. Their returns increase in proportion to the startup's success, aligning interests and encouraging strategic collaboration.

5.4.3 Limitations

To qualify for RBF, startups must have a consistent and verifiable revenue stream. This excludes pre-revenue companies or those with high volatility in monthly earnings. RBF works best with stable, subscription-based models where future revenue is somewhat predictable. Although RBF offers flexibility, its total cost can surpass that of a bank loan, especially if the company experiences slow growth. The extended repayment period could result in a high internal rate of return (IRR) for the investor. RBF providers are still relatively few in number, and their underwriting criteria can be strict. Minimum revenue thresholds often $20,000 to $50,000 in monthly recurring revenue (MRR) may exclude smaller or younger startups from eligibility (Uncapped, 2023).

5.4.4 Applicability

RBF is ideal for SaaS companies, online businesses, and other startups with high gross margins and stable monthly revenue. It offers a balanced financing alternative for ventures that are scaling but not yet ready for venture capital or unwilling to dilute ownership. However, it is less suitable for hardware companies, marketplace platforms, or pre-revenue tech startups.

5.5 Initial Coin Offerings (ICOs)

5.5.1 Definition and Mechanisms

Initial Coin Offerings (ICOs) are decentralized fundraising mechanisms that allow startups primarily in the blockchain sector to raise capital by issuing digital tokens on a public or private blockchain. These tokens are sold to investors in exchange for cryptocurrencies like Bitcoin or Ethereum and sometimes fiat currencies. Depending on the project, tokens may offer access to a platform (utility tokens), grant voting rights, or even represent fractional equity although the latter often attracts regulatory scrutiny (Zetzsche et al., 2018).

5.5.2 Advantages

1. Global Capital Access: ICOs enable startups to reach a global investor base without relying on local venture capitalists or intermediaries. This widens the scope of funding possibilities and allows for decentralized participation in early-stage projects.
2. Token Liquidity: Many tokens can be listed and traded on cryptocurrency exchanges shortly after issuance, providing liquidity to investors and price discovery to founders. This is in sharp contrast to equity rounds, where shares are illiquid until IPO or acquisition.
3. Funding for Emerging Technologies: ICOs have successfully financed a wide range of innovative projects such as decentralized finance (DeFi), distributed storage, and NFT platforms that often lie outside the risk profiles of traditional VCs (Fisch, 2019).

5.5.3 Limitations

In the United States, the SEC has ruled that most ICOs constitute securities offerings and must comply with federal securities laws. Failure to do so may result in enforcement actions, financial penalties, or the shutdown of operations (SEC, 2025). The valuation of ICO tokens is often speculative and highly volatile. Prices can swing based on hype, news cycles, and macroeconomic trends rather than project fundamentals, making ICO funding unpredictable.The ICO market has been notorious for scams, Ponzi schemes, and rug pulls especially in the 2017–2018 boom era. The lack of formal due diligence and financial audits increases the risk to investors.

5.5.4 Applicability

ICOs are best suited for blockchain-based startups with a clear utility case for their token and a tech-savvy team capable of managing tokenomics, smart contracts, and compliance. They are generally unsuitable for traditional startups or those lacking technical infrastructure or legal capacity to navigate the crypto-regulatory environment.

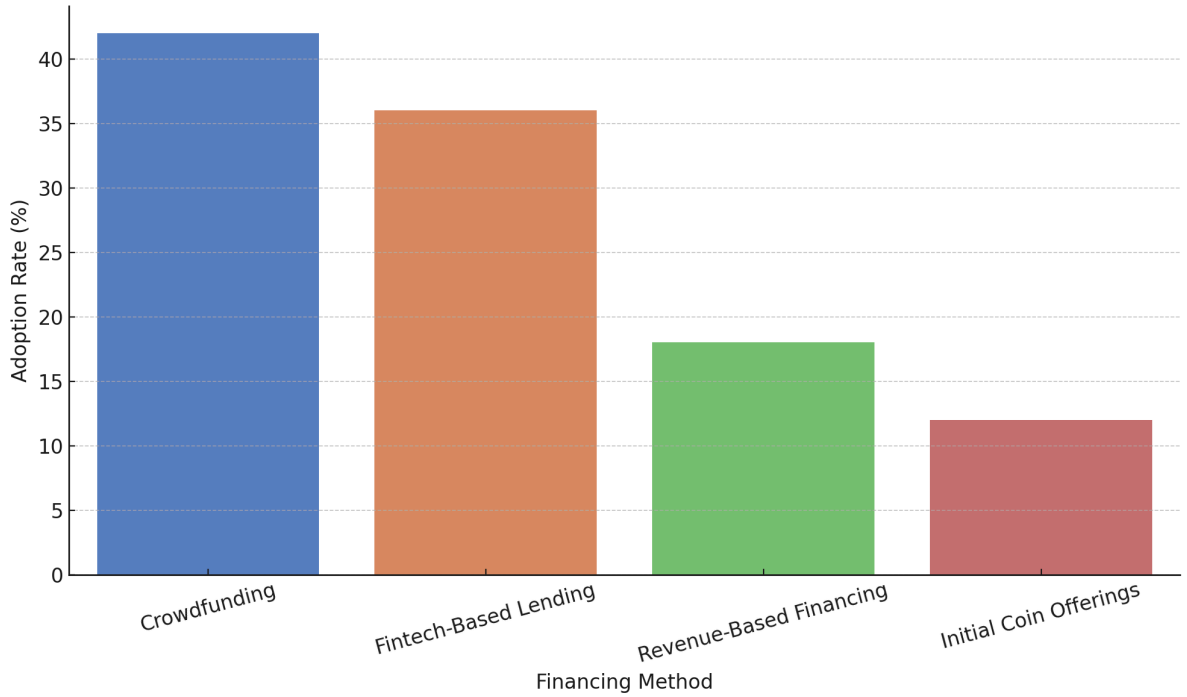
5.6 Comparative Analysis

Table 5: Comparative Overview of Alternative Financing Methods

Financing Method	Equity Dilution	Repayment Obligation	Regulatory Environment	Ideal for Startups with:
Crowdfunding	Varies	No	Moderate	Consumer products, strong community
Fintech-Based Lending	No	Yes	Evolving	Quick capital needs, limited credit
Revenue-Based Financing	No	Yes (Revenue-based)	Emerging	Predictable revenues, growth plans
Initial Coin Offerings	Varies	No	Uncertain	Blockchain projects, global audience

Source: Own elaboration

Figure 6: Adoption Rates of Alternative Financing Methods Among U.S. Startups (2024)



Note: This graph illustrates the percentage of startups utilizing each alternative financing method in 2024.

Source: Own elaboration based on data from Capchase. (2023).

5.7 Case Studies

In this section, we analyze four representative case studies that illustrate the practical application of each alternative financing method discussed in this thesis: crowdfunding, fintech lending, revenue-based financing (RBF), and initial coin offerings (ICOs). Each case is evaluated based on the company's financing strategy, the regulatory implications, operational outcomes, and long-term sustainability. This section aims to connect theory with real-world implementation, offering insights into the strategic advantages and risks associated with each method.

5.7.1 Crowdfunding: Pebble Technology and the Power of Community

Pebble Technology is widely regarded as one of the most successful examples of crowdfunding in startup financing. In 2012, the company launched a Kickstarter campaign to fund its innovative e-paper smartwatch. Initially setting a modest goal of $100,000, the campaign quickly went viral and ultimately raised over $10 million from nearly 70,000 backers within just 30 days (Mollick, 2014). This overwhelming response highlighted not only the demand for the product but also the potential of reward-based crowdfunding as a viable alternative financing method for startups.

Pebble's strategy revolved around reward-based crowdfunding, offering early access to the smartwatch as the primary incentive for backers. This approach allowed the company to simultaneously raise capital and test product-market fit before moving into mass production. Furthermore, by cultivating a community of early adopters, Pebble gained invaluable customer feedback, which it used to iteratively improve its product design and functionality. This interaction created a strong brand-community bond and laid a foundation for ongoing engagement and support.

However, the campaign's unprecedented success also introduced several challenges. Managing the logistics of mass production became a major operational hurdle as the demand far exceeded original expectations. The company faced delivery delays, which exposed it to reputational risk and criticism from backers who had invested in the vision of a timely, high-quality product. This exemplifies how public campaigns, while beneficial for early traction, can intensify scrutiny and accountability.

Despite these setbacks, the campaign's success paved the way for Pebble to launch additional crowdfunding rounds and eventually secure $15 million in Series A venture capital funding from Charles River Ventures. Nevertheless, Pebble eventually struggled to sustain its market position as large technology firms like Apple and Samsung entered the wearables space with superior resources and distribution channels. The company was ultimately acquired by Fitbit in 2016. The Pebble case underscores how crowdfunding can act as a powerful catalyst for early-stage growth, providing not only capital but also validation and community. However, it also highlights that initial success through alternative financing does not inherently secure long-term competitiveness in highly dynamic markets.

5.7.2 Fintech Lending: Kabbage and Data-Driven Credit Innovation

Kabbage, founded in 2009 in Atlanta, Georgia, stands out as a leading example of how fintech has transformed small business lending. The company pioneered an algorithm-based underwriting system that leveraged nontraditional data sources, such as eBay sales records, shipping activity, and real-time bank account data to evaluate a borrower's creditworthiness more dynamically than traditional financial institutions (Zhang & Liu, 2016). This innovative approach allowed Kabbage to offer rapid and accessible financing options to a segment of small businesses typically underserved by conventional banks.

By eliminating the need for collateral and streamlining loan applications, Kabbage significantly broadened access to capital for underbanked entrepreneurs. Its automated platform enabled instant loan decisions, drastically reducing the time-to-funding and enhancing operational efficiency for borrowers. In addition, strategic partnerships with major platforms like PayPal and QuickBooks, as

well as collaborations with established banks, helped extend the company's reach and embedded its services within the daily operations of small businesses.

Despite these advances, Kabbage operated in a complex regulatory environment. Fintech lenders, including Kabbage, were frequently scrutinized for high interest rates and the relative lack of consumer protection frameworks applicable to their operations. The company's reliance on transactional and behavioral data also raised significant concerns related to data privacy and cybersecurity, highlighting the tension between innovation and regulation in the digital finance sector.

Kabbage's model ultimately proved highly scalable. It disbursed billions of dollars in small business loans and, in 2020, was acquired by American Express. This acquisition underscored Kabbage's success in extending financial services to underserved markets through technology. However, the company's journey also illustrated the need for adaptive and responsive regulatory oversight capable of safeguarding users while fostering financial inclusion and innovation.

5.7.3 Revenue-Based Financing: ConvertKit's Non-Dilutive Growth Strategy

onvertKit, an email marketing platform tailored to content creators, offers a compelling case study in the strategic use of Revenue-Based Financing (RBF). Founded in 2013, the company deliberately chose to bypass traditional venture capital after determining that equity financing would compromise its goals around autonomy and sustainable growth. Instead, ConvertKit partnered with Lighter Capital, a U.S.-based RBF provider, to secure funding without diluting ownership stakes.

The RBF arrangement enabled ConvertKit to invest in marketing and product development initiatives, using future revenue as the basis for repayment. This funding mechanism was particularly well-suited to ConvertKit's SaaS business model, which featured predictable monthly recurring revenue (MRR). By structuring repayments as a fixed percentage of MRR, the company preserved cash flow agility and shielded itself from the pressure of fixed loan installments during low-revenue periods.

Despite its advantages, RBF posed some operational challenges. The model requires consistent and accurate financial reporting, which can become burdensome for startups with fluctuating or seasonal revenues. Moreover, if revenue growth is slower than projected, the total cost of capital may exceed that of traditional bank loans due to the extended duration of repayments. These considerations underscore the importance of strong unit economics and revenue forecasting in determining RBF suitability.

Ultimately, ConvertKit scaled impressively, growing from $10,000 to over $1 million in MRR within three years under a hybrid bootstrapping and RBF approach. Its success demonstrates that RBF can serve as a potent alternative to venture capital, particularly for founders seeking to maintain control, avoid equity dilution, and build capital-efficient businesses. The ConvertKit case reinforces the strategic value of matching the financing model to a company's cash flow profile and long-term vision.

5.7.4 Initial Coin Offerings: Tezos and the Complexities of Token-Based Fundraising

Tezos, a decentralized blockchain platform, conducted one of the most high-profile Initial Coin Offerings (ICOs) in 2017, raising approximately $232 million in Bitcoin and Ether. At the time, this was one of the largest ICOs in history, fueled by ambitious goals to provide smart contract functionality combined with formal verification, a method that mathematically ensures code correctness, distinguishing Tezos from contemporaries like Ethereum (Fisch, 2019).

The Tezos ICO was notable for its uncapped fundraising model. Rather than setting a hard limit on contributions, the project accepted funds continuously throughout the campaign, which was both controversial and unprecedented. This model enabled Tezos to raise an extraordinary sum in a short period and attracted a global investor base, capitalizing on the decentralized, borderless nature of blockchain finance. The excitement surrounding the platform's unique features and governance model contributed to a rapid influx of support from both retail and institutional investors.

However, the project quickly encountered significant internal and legal challenges. Disputes between the Tezos Foundation created to manage the raised funds and the project's original founders led to prolonged delays in development and launch. These governance issues became public and eroded investor confidence. Furthermore, the lack of regulatory clarity surrounding ICOs at the time resulted in multiple class-action lawsuits filed against Tezos in the United States, alleging violations of securities law (Zetzsche et al., 2018).

Despite these obstacles, Tezos ultimately succeeded in launching its mainnet in 2018 and has since supported a growing ecosystem of decentralized applications (dApps), decentralized finance (DeFi) tools, and non-fungible tokens (NFTs). The platform's governance model, which allows token holders to vote on protocol upgrades, has become a distinguishing feature in the evolving blockchain space. The Tezos case underscores the duality of ICO-based financing: while it can provide rapid, large-scale funding and immediate global visibility, it also exposes projects to heightened legal, operational, and

reputational risks. Clear governance frameworks and regulatory compliance are essential for ICO-funded startups seeking long-term legitimacy and success.

5.7.5 Comparative Reflection

Each case study illustrates the strategic suitability of a specific alternative financing method under different business conditions.

Table 6: Comparative Overview of Case Studies in Alternative Financing

Case Study	Financing Method	Core Advantage	Major Challenge
Pebble	Crowdfunding	Market validation	Fulfillment pressure
Kabbage	Fintech Lending	Speed & inclusion	Regulatory compliance
ConvertKit	RBF	Non-dilutive capital	Revenue consistency
Tezos	ICO	Rapid global fundraising	Legal and governance risks

Source: Own elaboration

These case studies collectively underscore that there is no universally optimal financing strategy. Instead, startups must align their financing choices with their operational models, growth trajectories, and market dynamics. While crowdfunding excels at early-stage validation, fintech lending is best suited for rapid access to credit. RBF offers capital flexibility for recurring revenue models, and ICOs, while risky, can provide enormous liquidity for blockchain-native ventures.

Figure 7: Comparison of Financing Methods

Source: Own elaboration based on data from Cegielska (2024); Global Legal Insights (2024); Capchase (2023); Uncapped (2023); Fisch (2019); Zetzsche et al. (2018).

.

6. Conclusions and Recommendations

6.1 Main Conclusions from the Comparative Analysis

This thesis has examined the growing relevance of alternative financing mechanisms for startups in the United States, with a particular emphasis on crowdfunding, fintech lending, revenue-based financing (RBF), and initial coin offerings (ICOs). Drawing from both theoretical frameworks and empirical case studies, several key conclusions emerge that highlight the nuanced role these models play in today's entrepreneurial finance landscape.

First, there is no universally optimal financing strategy. The most suitable method depends heavily on the startup's business model, sector, stage of growth, and risk tolerance. For example, RBF has proven especially effective for software-as-a-service (SaaS) companies with stable recurring revenues, while ICOs are most appropriate for blockchain-native ventures with the infrastructure to issue tokens and manage compliance.

Second, alternative financing has gained legitimacy over time. Despite early skepticism, the success of platforms such as Kickstarter, the scalability of fintech lenders like Kabbage, and the growing reach

of RBF providers such as Lighter Capital demonstrate that these models can support both growth and sustainability. Regulatory developments, most notably the implementation of Regulation Crowdfunding under the JOBS Act, have contributed significantly to mainstream acceptance (SEC, 2024).

Third, legal clarity is essential particularly in the realm of ICOs. As illustrated by the Tezos case, legal ambiguity and governance disputes can derail even the most promising blockchain initiatives. The Securities and Exchange Commission's (SEC) evolving stance on token-based fundraising continues to influence how startups structure ICOs and engage with investors (Zetzsche et al., 2018).

Finally, both fintech lending and RBF contribute meaningfully to financial inclusion. These models enable access to capital for underbanked, early-stage, or unprofitable startups that might not meet the criteria of venture capital firms or commercial banks. By doing so, they help close funding gaps and support a more diverse and inclusive entrepreneurial ecosystem.

These conclusions reinforce the central argument of this thesis: alternative financing mechanisms are not only viable but strategically valuable when matched appropriately to a startup's structure and objectives.

6.2 Recommendations for Startup Founders

Given the diverse options and strategic considerations involved, founders must make funding choices aligned with their company's growth phase, product type, and risk profile. The following framework summarizes the strategic suitability of each method.

Table 7: Recommendation for startup founders

Startup Trait	Best Financing Method	Reason
Early-stage, consumer product	Crowdfunding	Market validation, community building
Data-driven, urgent capital need	Fintech Lending	Speed, accessibility
SaaS with steady monthly revenue	Revenue-Based Financing (RBF)	Flexible repayments, non-dilutive
Blockchain-based, global user base	ICO	Scalable fundraising, token liquidity

Source: Own elaboration

Additional Guidance:

1. Due diligence is essential: Founders must evaluate platform credibility, legal implications, and contract terms before engaging.

2. Communications and transparency build investor trust specially in models with public exposure like crowdfunding and ICOs.

3. Avoid overreliance on a single source of capital. Diversifying funding streams mitigates risk and allows for greater financial agility.

6.3 Policy and Regulatory Recommendations

As alternative financing models continue to gain momentum within the startup landscape, regulatory bodies must evolve in parallel to ensure a balance between financial innovation and investor protection. Emerging mechanisms such as ICOs, fintech lending, and revenue-based financing (RBF) offer promising avenues for capital formation, but their long-term success hinges on thoughtful, adaptive regulation.

One of the most pressing priorities is the clarification of legal frameworks governing ICOs. Agencies such as the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) must provide definitive guidelines for the issuance and classification of digital tokens. Without a coherent regulatory structure, startups and investors alike are left navigating a fragmented landscape prone to arbitrage, uncertainty, and legal exposure.

Fintech regulation must also be modernized. Institutions like the Consumer Financial Protection Bureau (CFPB) should coordinate with state authorities to create a unified supervisory model for digital lending platforms. The aim should not be to stifle innovation, but rather to ensure that data privacy, transparency, and consumer protection standards are upheld consistently across jurisdictions (CFPB, 2024).

In the context of RBF, regulatory clarity remains a work in progress. To promote trust and prevent misinformation, uniform national disclosure requirements modeled after the Truth in Lending Act could help standardize how financing terms, fees, and repayment conditions are communicated to borrowers. This would benefit both providers and entrepreneurs by reducing regulatory friction and enhancing transparency.

Finally, promoting inclusive financing should be a strategic priority. Public policy can play a pivotal role in incentivizing lending to historically underrepresented groups, including female and minority-led startups. Data from PitchBook (2023) continues to show significant disparities in capital access, underscoring the need for initiatives that foster equity in the entrepreneurial ecosystem.

In summary, well-designed regulation will be critical in shaping a startup finance environment that is not only innovative but also safe, inclusive, and resilient.

6.4 Future Research Directions

This thesis opens the door to several potential research paths:

1. Quantitative impact of alternative financing on startup longevity: Longitudinal studies could investigate whether companies financed through crowdfunding or RBF achieve higher survival rates than traditionally financed startups.

2. Investor motivation and behavior: Especially in ICOs and equity crowdfunding, understanding what drives non-institutional investor decisions could improve campaign design and regulation.

3. Cross-country regulatory comparisons: Studying the legal treatment of fintech and crypto-financing in different jurisdictions would help identify best practices and areas for harmonization.

4. Gender and demographic access gaps: Future research could explore how alternative financing mechanisms either bridge or replicate structural inequalities in startup ecosystems.

Visual Summary: Key Takeaways

Figure 8. Strategic Suitability Matrix by Startup Type:

Visual Summary: Key Takeaways

Business Model	Business Model			
	Early-Stage	Scaling	Global	High Risk
Crowdfunding	✓✓✓	✓	✓	✓✓
Fintech Lending	✓✓✓	✓✓	✓	✓
Revenue-Based Financing	✓	✓✓✓✓	✓	✓
Initial Coin Offering	✓✓	✓✓✓	✓✓✓	×

✓ = moderate fit, ✓✓ = good fit, ✓✓✓ = ideal fit
× = not recommended

Source: Own elaboration

Final Words

Alternative financing mechanisms have evolved from fringe options to essential tools in the startup founder's arsenal. By strategically choosing among crowdfunding, fintech lending, RBF, and ICOs, entrepreneurs can align their capital structure with their vision and operational constraints. Meanwhile, regulators must maintain a careful balance—nurturing innovation while safeguarding the integrity of financial markets. As startup ecosystems grow more global, diverse, and digital, financing models must evolve in tandem.

7. Bibliography

Berger, A. N., & Udell, G. F. (2006). A more complete conceptual framework for SME finance. *Journal of Banking & Finance, 30*(11), 2945–2966. https://doi.org/10.1016/j.jbankfin.2006.05.008

Block, J. H., Colombo, M. G., Cumming, D. J., & Vismara, S. (2018). New players in entrepreneurial finance and why they are there. *Small Business Economics, 50*(2), 239–250. https://doi.org/10.1007/s11187-016-9826-6

Boreiko, D., & Sahdev, N. (2018). To ICO or not to ICO? Empirical analysis of Initial Coin Offerings and token sales. *SSRN*. https://doi.org/10.2139/ssrn.3209180

Capchase. (2023). *What is revenue-based financing?* https://www.capchase.com/blog/what-is-revenue-based-financing

Carta. (2024). *Q1 2024 Startup Funding Report: Bay Area Leads with AI Investment Boom*. https://carta.com/blog/startup-funding-q1-2024/

Cegielska, E. (2024). *Crowdfunding for and against*. ResearchGate. https://www.researchgate.net/publication/379416800_Crowdfunding_for_and_again

Consumer Financial Protection Bureau (CFPB). (2024). *CFPB finalizes rule to supervise large nonbank digital payment providers*. https://www.consumerfinance.gov/about-us/newsroom/cfpb-finalizes-rule-supervise-nonbank-digital-payments/

Crunchbase. (2024). *Startup funding trends in North America: Q1 2024 analysis*. https://www.crunchbase.com/research/startup-funding-q1-2024

Fisch, C. O. (2019). Initial coin offerings (ICOs) to finance new ventures: An overview of the market and its potential. *Journal of Business Venturing, 34*(1), 1–22. https://doi.org/10.1016/j.jbusvent.2018.09.007

Fortune Business Insights. (2023). *Crowdfunding Market Size, Share & Trends Analysis Report, 2023–2030*. https://www.fortunebusinessinsights.com/crowdfunding-market-107129

Gilion. (2023). *A smarter way to fund your SaaS company*. https://www.gilion.com

Global Legal Insights. (2024). *Fintech Laws and Regulations USA 2024*. Global Legal Group. https://www.globallegalinsights.com/practice-areas/fintech-laws-and-regulations/usa

GoingVC. (2024). *Top Emerging Startup Cities in the U.S. 2024 Edition*. https://www.goingvc.com/blog/emerging-startup-hubs-2024

Gompers, P., & Lerner, J. (2004). *The Venture Capital Cycle* (2nd ed.). MIT Press.

Gyger, A. (2024). *Alternative financing alignment: How startups choose models*. ResearchGate. https://www.researchgate.net/publication/372928883

Howell, S. T., Niessner, M., & Yermack, D. (2018). Initial Coin Offerings: Financing growth with cryptocurrency token sales. *NBER Working Paper No. 24774*. https://www.nber.org/papers/w24774

International Comparative Legal Guides (ICLG). (2024). *Lending & Secured Finance Laws and Regulations USA 2024*. https://iclg.com/practice-areas/lending-and-secured-finance-laws-and-regulations/usa

K&L Gates. (2022). *New disclosure laws target revenue-based financing in California and New York*. https://www.klgates.com/New-Disclosure-Laws-Target-Revenue-Based-Financing-in-California-and-New-York-11-10-2022

KPMG. (2025). *Venture Pulse Q2 2025: Global analysis of venture funding trends*. https://home.kpmg/xx/en/home/insights/2025/04/venture-pulse-q2-2025.html

Lighter Capital. (2020). *How ConvertKit used Revenue-Based Financing to grow from $10k to $1M in MRR*. https://www.lightercapital.com/blog/convertkit-rbf-case-study

Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing, 29*(1), 1–16. https://doi.org/10.1016/j.jbusvent.2013.06.005

MySanAntonio. (2025). *Austin's Startup Scene Grows 244% in One Year as VC Floods into AI*. https://www.mysanantonio.com/business/article/austin-startup-vc-growth-2025-19345678.php

National Venture Capital Association (NVCA). (2023). *Venture Monitor 2023 Annual Report*. https://nvca.org/research/research-resources

OECD. (2022). *Financing SMEs and Entrepreneurs 2022: An OECD Scoreboard*. Organisation for Economic Co-operation and Development.

PitchBook. (2023). *All In: Women in the VC Ecosystem 2023 Report*. https://pitchbook.com/news/reports/2023-annual-us-vc-female-founders-dashboard

SEC. (2024). *Regulation Crowdfunding*. U.S. Securities and Exchange Commission. https://www.sec.gov/smallbusiness/exemptofferings/regcrowdfunding

Stripe. (2024). *Stripe Capital: Financing designed for internet businesses*. https://stripe.com/capital

The Economic Times. (2025). *Buy Now, Pay Later models shift as regulation increases*. https://economictimes.indiatimes.com

U.S. Securities and Exchange Commission (SEC). (2017). *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO*. https://www.sec.gov/litigation/investreport/34-81207.pdf

U.S. Securities and Exchange Commission (SEC). (2025). *Enforcement actions related to digital assets and ICOs: Annual report 2025*. https://www.sec.gov/reports/digital-asset-enforcement-2025

Uncapped. (2023). *Why founders are choosing revenue-based financing over venture capital*. https://www.uncapped.com/blog/rbf-vs-vc

WIRED. (2025). *SEC ends Binance lawsuit in pivot toward pro-crypto policy shift*. https://www.wired.com/story/sec-binance-dismissal-crypto-regulatory-reset/

Zetzsche, D. A., Buckley, R. P., Arner, D. W., & Föhr, L. (2018). The ICO gold rush: It's a scam, it's a bubble, it's a super challenge for regulators. *Harvard International Law Journal, 60*(2), 267–312.

Zhang, J., & Liu, P. (2016). Rational herding in microloan markets. *Management Science, 62*(5), 1483–1501. https://doi.org/10.1287/mnsc.2015.2172

Ziegler, T., Shneor, R., Garvey, K., Wenzlaff, K., Yerolemou, N., & Zhang, B. (2023). *The 2nd Global Alternative Finance Market Benchmarking Report*. Cambridge Centre for Alternative Finance.

7.1 Figure Bibliography

Figure 1: Fortune Business Insights. (2023). *Crowdfunding Market Size, Share & Trends Analysis Report, 2023–2030.* https://www.fortunebusinessinsights.com/crowdfunding-market-107129

Figure 2: Uncapped. (2023). *The 2023 Founder Financing Report: Why startups choose RBF over VC*. https://www.uncapped.com/resources/2023-founder-financing-report

Figure 3: Howell, S. T., Niessner, M., & Yermack, D. (2018). *Initial Coin Offerings: Financing growth with cryptocurrency token sales*. NBER Working Paper No. 24774. https://www.nber.org/papers/w24774

Figure 4: National Venture Capital Association. (2024). *PitchBook-NVCA Venture Monitor: Q1 2024*. https://nvca.org/research/research-resources

Table 3: U.S. Securities and Exchange Commission (SEC). (2024). *Regulation Crowdfunding*. https://www.sec.gov/smallbusiness/exemptofferings/regcrowdfunding

Table 4: K&L Gates. (2022). *New disclosure laws target revenue-based financing in California and New York*. https://www.klgates.com/New-Disclosure-Laws-Target-Revenue-Based-Financing-in-California-and-New-York-11-10-2022

Figure 5: U.S. Securities and Exchange Commission (SEC). (2025). *Enforcement actions related to digital assets and ICOs: Annual report 2025*. https://www.sec.gov/reports/digital-asset-enforcement-2025

Declaración de Uso de Herramientas de Inteligencia Artificial Generativa en Trabajos Fin de Grado

ADVERTENCIA: Desde la Universidad consideramos que ChatGPT u otras herramientas similares son herramientas muy útiles en la vida académica, aunque su uso queda siempre bajo la responsabilidad del alumno, puesto que las respuestas que proporciona pueden no ser veraces. En este sentido, NO está permitido su uso en la elaboración del Trabajo fin de Grado para generar código porque estas herramientas no son fiables en esa tarea. Aunque el código funcione, no hay garantías de que metodológicamente sea correcto, y es altamente probable que no lo sea.

Por la presente, yo, Jaime Libano Rubio estudiante de E-2 Bilingüe de la Universidad Pontificia Comillas al presentar mi Trabajo Fin de Grado titulado " *A Comparative Analysis of Alternative Financing Methods for Startups in the USA: Crowdfunding, Fintech, Revenue-Based Financing, and Initial Coin Offerings (ICOs)*", declaro que he utilizado la herramienta de Inteligencia Artificial Generativa ChatGPT u otras similares de IAG de código sólo en el contexto de las actividades descritas a continuación:

1. **Brainstorming de ideas de investigación:** Utilizado para idear y esbozar posibles áreas de investigación.
2. **Referencias:** Usado juntamente con otras herramientas, como Science, para identificar referencias preliminares que luego he contrastado y validado.
3. **Metodólogo:** Para descubrir métodos aplicables a problemas específicos de investigación.
4. **Constructor de plantillas:** Para diseñar formatos específicos para secciones del trabajo.
5. **Corrector de estilo literario y de lenguaje:** Para mejorar la calidad lingüística y estilística del texto.
6. **Generador previo de diagramas de flujo y contenido:** Para esbozar diagramas iniciales.
7. **Sintetizador y divulgador de libros complicados:** Para resumir y comprender literatura compleja.
8. **Generador de datos sintéticos de prueba:** Para la creación de conjuntos de datos ficticios.
9. **Revisor:** Para recibir sugerencias sobre cómo mejorar y perfeccionar el trabajo con diferentes niveles de exigencia.
10. **Traductor:** Para traducir textos de un lenguaje a otro.

Afirmo que toda la información y contenido presentados en este trabajo son producto de mi investigación y esfuerzo individual, excepto donde se ha indicado lo contrario y se han dado los créditos correspondientes (he incluido las referencias adecuadas en el TFG y he explicitado para que se ha usado ChatGPT u otras herramientas similares). Soy consciente de las implicaciones académicas y éticas de presentar un trabajo no original y acepto las consecuencias de cualquier violación a esta declaración.

Fecha: 3 de junio de 2025

Firma: _Jaime Libano Rubio_____