The U.S. Experience with Innovative Digital Financing Mechanisms for Reducing Financial Exclusion: Lessons from Digital Transformation and Artificial Intelligence for the Algerian Context

Ayache Belatel [*1] Layachi Gharnous [2]

[1] Setif 01 university (Algeria), ayache.belatel@univ-setif.dz.

[2] Setif 01 university (Algeria), layachi.gharnous@univ-setif.dz.

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Abstract:

One of the most prominent financial innovations in the context of financial technology (FinTech) is crowdfunding, which has transformed the financing of startups and creative and social projects—especially considering the challenges associated with securing traditional financing from banks and financial institutions. This model helps increase financial inclusion by enabling startups, small and medium-sized enterprises (SMEs), and even individuals to present their ideas and secure the funds needed to implement them. It relies on pooling financial resources from a large number of people through specialized digital platforms.

The purpose of this paper is to study the experience of the United States in using crowdfunding as a mechanism to reduce financial exclusion and promote financial inclusion, highlighting the role of artificial intelligence (AI) in improving platform efficiency and increasing levels of trust.

The study adopts a descriptive, analytical, and comparative approach, relying on data from the period 2019–2024, combining a theoretical literature review with an analysis of the U.S. crowdfunding experience. The results show that the U.S. market size exceeded USD 36 billion in 2023, with a notable contribution from startups. Artificial intelligence also emerged as a pivotal tool for risk assessment, campaign success prediction, and fraud detection. The study concludes that the American experience represents a model that can be drawn upon for Algeria, consistent with local environmental specificities.

Key words: Crowdfunding; Financial Exclusion; Financial Inclusion; Artificial Intelligence; United States of America.

Jel Classification Codes : G23, O16, G21, D83, N10.

Introduction:

With the rise of fintech and the digital revolution, crowdfunding has become one of the most prominent financial innovations. It represents an effective and alternative tool to address the issue of financial exclusion and to broaden the scope of financial inclusion by enabling individuals and startups to obtain financing through electronic platforms, away from the traditional constraints of the banking sector. Recent literature emphasizes that crowdfunding is not limited to being a fundraising mechanism but also constitutes a means to strengthen entrepreneurship, encourage innovation, and create new channels of interaction between funders and project owners.

Despite this growing role, studies point to a clear research gap regarding the extent to which crowdfunding integrates with modern technological transformations, particularly artificial intelligence, which has come to effect a qualitative change in risk management, data analysis, fraud detection, and improving the quality of investment decisions. Most previous research focused on describing crowdfunding mechanisms or measuring its economic impact, while the contribution of AI in maximizing its efficiency and achieving financial sustainability remains an area that requires further investigation—especially in developing countries and the Algerian context, which are still in phases of experimentation and partial adoption of these tools.

Accordingly, this study aims to analyze the United States' experience in crowdfunding, considering it the most mature and developed market where the volume of crowdfunding exceeded USD 36 billion in 2023, with increasing reliance on AI techniques in platform

* Corresponding author

management and investment direction. This experience is assumed to represent a model that can be leveraged in developing environments and the Algerian context to develop more effective strategies to confront the challenges of traditional finance and achieve financial inclusion.

Based on the above, the research problem can be formulated as the following main question:

To what extent has the employment of artificial intelligence in U.S. crowdfunding platforms contributed to reducing financial exclusion and enhancing financial inclusion, and what are the ways to benefit from this experience in the Algerian context?

This main problem branches into several sub-questions:

- What are the theoretical and conceptual frameworks underpinning crowdfunding and its relationship with artificial intelligence in the financial domain?
- What is the status and dynamics of crowdfunding in the United States, especially in the employment of AI?
- How has crowdfunding contributed to reducing financial exclusion and enhancing financial inclusion in the American experience?
- What opportunities and challenges face Algeria in adopting AI-supported crowdfunding as a mechanism to reduce financial exclusion?
- How can lessons learned from the U.S. experience be used to build a model suitable for the Algerian context?

To answer the posed problem, this study relies on a descriptive, analytical, and comparative approach that combines a theoretical literature review on crowdfunding and AI and an analysis of the U.S. experience as an advanced model in this field, with a critical projection onto the Algerian reality to explore adoption and adaptation opportunities. This approach allows building an integrated scientific vision that combines learning from international experience and considering local specificities.

Accordingly, the paper is organized into a threefold analytical trajectory: first, grounding the theoretical-conceptual dimension of crowdfunding and its relation to AI; then examining the U.S. experience as a leading model in employing this mechanism to strengthen financial inclusion and reduce exclusion; and finally, reading the Algerian reality with its opportunities and challenges, before summarizing the main lessons and actionable recommendations for local adaptation.

- **Research Objectives**

This study aims to achieve the following objectives:

.To examine the theoretical foundations of crowdfunding and its relationship with artificial intelligence within the framework of financial technology.

.To analyze the development of crowdfunding in the United States as one of the most advanced global experiences.

.To explore the role of artificial intelligence in enhancing the efficiency of crowdfunding platforms and improving investment decision-making.

.To assess the contribution of AI-supported crowdfunding in reducing financial exclusion and promoting financial inclusion.

.To identify the opportunities and challenges of adopting this mechanism in the Algerian context and to draw lessons from the U.S. experience.

- Research Significance

The importance of this study lies in its contribution to enriching the academic literature on the intersection between crowdfunding and artificial intelligence, particularly in the context of financial inclusion. It also provides an analytical reading of the U.S. experience as a leading model in this field, offering insights that may support policymakers and financial stakeholders in developing countries—especially in Algeria—in designing more effective strategies to expand access to finance and reduce financial exclusion.

1. Theoretical and Conceptual Framework

Accurate definition of concepts is a fundamental step in any academic study, especially when dealing with multidimensional subjects that combine economics, technology, and development. The following paragraphs address the main central concepts that form the reference framework of this paper.

1.1 Financial Exclusion

Financial exclusion denotes the deprivation of individuals or institutions from access to suitable and affordable financial services, which negatively affects their ability to save, invest, and participate in economic activity. According to the World Bank (2022), more than 1.4 billion people worldwide remain outside the formal financial system, reflecting the global scale of the problem. This deprivation results from multiple factors, notably strict constraints imposed by traditional banks, lack of financial infrastructure, and the digital divide that limits the use of modern financial tools. Financial exclusion is an important indicator of social inequality as it contributes to narrowing economic opportunities and widening income gaps among different groups (World Bank, 2022).

1.2 Financial Inclusion

Financial inclusion represents the counterpart of financial exclusion and aims to enable all individuals and groups—especially vulnerable ones—to access formal financial services equitably. Such services include opening bank accounts, obtaining loans, insurance, and using digital payment methods. Financial inclusion contributes to increasing individuals' purchasing power, supporting financial system stability, and promoting social justice, making it a central objective of the 2030 Sustainable Development Agenda. The OECD has emphasized that financial inclusion is a fundamental pillar for achieving the SDGs (OECD, 2022).

1.3 Crowdfunding

Aimed at financing economic, social, or humanitarian projects, crowdfunding is an advanced method of collecting donations that enables individuals and organizations to gather modest financial contributions from a broad audience via specialized digital platforms. Digitization, participation, transparency, and diversity characterize this model, which includes several basic forms that vary according to the interaction between project managers and funders. The most notable are donation-based crowdfunding, reward-based crowdfunding, debt-based crowdfunding, equity crowdfunding, and real-estate crowdfunding (Sahm et al., 2014):

- Donation-based Crowdfunding: GoFundMe is the most famous example of this type, focusing on collecting financial donations without compensation, often used for humanitarian or charitable causes.
- Reward-based Crowdfunding: Known for offering symbolic rewards or trial products to supporters in return for their financial support, a model popularized by Kickstarter.
- Debt-based Crowdfunding (Peer-to-Peer Lending): Based on issuing loans between individuals or companies through platforms like LendingClub, allowing lenders to recover capital plus a predetermined return.
- Equity Crowdfunding: A common model for companies where supporters receive equity stakes in return for their contributions. Wefunder is a notable platform for equity crowdfunding.
- Real Estate Crowdfunding: Enables private investors with limited resources to access the real estate market by pooling contributions to finance real estate projects or invest in real assets.

Recent reports indicate that the expansion of fintech and increasing participation of entrepreneurs contributed to the rapid growth of crowdfunding platforms in the United States between 2019 and 2023 (The Business Research Company, 2024).

1.4 Artificial Intelligence (AI)

Rossi and Vismara (2023) affirm that integrating AI technologies—such as machine learning, natural language processing (NLP), and predictive analytics—into equity crowdfunding platforms has become a cornerstone for enhancing investor trust and improving decision-making efficiency. AI enables the analysis of vast volumes of financial and behavioral data with high

accuracy, contributing to more precise risk assessments and identifying promising investment opportunities compared to traditional methods. Furthermore, intelligent algorithms play an important role in early fraud detection and predicting the success of fundraising campaigns by examining historical data and investor behavior patterns. Ultimately, these technologies help reduce information asymmetry between entrepreneurs and investors and enhance transparency and trust within the digital crowdfunding ecosystem (Rossi & Vismara, 2023).

In addition, intelligent systems provide personalized investment opportunity recommendations by suggesting projects that match funders' preferences, which enhances platform effectiveness and increases participation rates. AI adoption in this context reinforces transparency, reduces uncertainty, and consolidates investor confidence, making crowdfunding a more reliable channel for financing startups (Rossi & Vismara, 2023).

1.5 Interrelationships Within the Theoretical Framework

In light of the concepts presented, the integrative relationship among them can be explained as follows:

- Financial exclusion represents the central challenge addressed in this study, being a prominent manifestation of economic and social inequality resulting from limited access to formal financial services. The Global Findex Database (2017) indicated that approximately 1.7 billion people worldwide did not hold a bank account, reflecting the depth and extent of the phenomenon (Demirgüç-Kunt et al., 2018).

- Financial inclusion embodies the strategic objective to be achieved by expanding beneficiaries of financial services and ensuring equitable and secure access, thereby contributing to narrowing socioeconomic disparities and supporting inclusive growth. The World Bank has underscored that financial inclusion is a pivotal tool for achieving the SDGs (World Bank, 2020).

- Crowdfunding serves as the practical, innovative instrument for materializing financial inclusion by enabling digital platforms to offer more flexible financing alternatives for startups and individuals, thus enhancing financial inclusion. Recent studies suggest that crowdfunding, when supported by fintech and AI, enhances transparency and increases investor confidence, making it a key lever for financial inclusion in the digital economy (Rossi & Vismara, 2023; Vismara, 2019).

- Artificial intelligence acts as an enabling factor that raises the efficiency of crowdfunding through big data analytics, improved risk management, and predictive mechanisms, thereby enhancing trust in the digital financial ecosystem and accelerating financial inclusion (Rossi & Vismara, 2023).

Consequently, the relationship among the four concepts is not merely linear but integrative: financial exclusion is the challenge, financial inclusion the goal, crowdfunding the practical tool, and AI the factor that amplifies effectiveness and reliability. This sequence positions the theoretical framework of the study within a coherent analytical context combining challenges, objectives, mechanisms, and enabling factors.

2. U.S. Experience in Crowdfunding

2.1 Historical Development of Crowdfunding in the United States

Crowdfunding in the United States emerged in the early 2000s as donation- and reward-based initiatives through platforms such as Kickstarter and Indiegogo. The spread of the Internet and digital payment systems fostered an environment conducive to financing small and innovative projects outside traditional financial institutions. Over time, the growing volume and diversity of operations necessitated regulatory intervention through substantial legislative reforms.

From this perspective, the evolution of U.S. crowdfunding can be traced through four main stages, reflecting its transformation from simple individual initiatives to an integrated financial industry.

- Stage One: The Foundational Beginnings (pre-2008)

Crowdfunding is considered an extension of previous social and financial practices, initially relying on donations and contributions to support artistic and charitable online initiatives. These early experiments helped crystallize the concept of relying on the crowd as an alternative funding mechanism (Belleflamme et al., 2014).

- Stage Two: Digital Take-Off (2008–2012)

Following the global financial crisis and the advent of platforms like Kickstarter and Indiegogo, crowdfunding acquired a broader economic dimension, expanding beyond charitable support to become a tool for financing creative and innovative projects, thereby merging technology and finance (Agrawal et al., 2013).

- Stage Three: Legislative and Regulatory Framework (2012–2016)

The passage of the Jumpstart Our Business Startups Act (JOBS Act) in 2012 constituted a pivotal turning point by enabling individuals to invest in startups via regulated online platforms, conferring legal legitimacy upon crowdfunding and integrating it into the formal financial system (Rep. Fincher, 2012).

- Stage Four: Maturity and Diffusion (2016–present)

Crowdfunding witnessed notable expansion across economic sectors, with banks and investment firms entering the digital platform space and new models such as equity crowdfunding and lending-based crowdfunding gaining prominence. This development consolidated the United States' role among global leaders in this field (Jason et al., 2017).

2.2 Legal and Regulatory Framework for Crowdfunding in the U.S.

The legal framework is one of the key pillars that enabled crowdfunding to evolve into a mature industry. Before 2012, participation in equity investments was limited to accredited investors, and platforms were primarily limited to donation and reward models (Agrawal et al., 2013). The JOBS Act (2012) introduced a fundamental shift by allowing individuals to invest in startups online in exchange for equity stakes, setting funding caps, and subjecting platforms to U.S. Securities and Exchange Commission (SEC) oversight (SEC, 2015).

Regulation Crowdfunding (Final Rule, 2015) provided practical mechanisms for implementing the law and expanding financing opportunities, while later amendments (2020–2024) raised the maximum funding cap to five million dollars and eased restrictions on small entities (U.S. SEC, 2021). The American model is characterized by its flexibility and balance between promoting entrepreneurship and protecting investors, making it a global reference for crowdfunding regulation (Belleflamme et al., 2015; Richard, 2013).

2.3 Market and Recent Trends in U.S. Crowdfunding

The U.S. crowdfunding market experienced rapid growth in recent years, reaching approximately USD 36 billion in 2023, with expectations to reach USD 43 billion by 2025, and a compound annual growth rate exceeding 15% (Statista, 2024; The Business Research Company, 2024). Crowdfunding modes are distributed among donations (28%—GoFundMe), rewards (23%—Kickstarter/Indiegogo), P2P lending (30%—LendingClub/Prosper), equity crowdfunding (15%—Wefunder/StartEngine), and real estate (4%—Fundrise/RealtyMogul) (Statista, 2024).

The COVID-19 pandemic underscored the sector’s relevance; GoFundMe campaigns surged by nearly 60% between 2020 and 2021, demonstrating crowdfunding’s capacity to adapt to crises and bolster financial inclusion (GoFundMe Report, 2021).

2.4 The Role of Artificial Intelligence in Developing Crowdfunding Platforms

Artificial intelligence is among the most important contributors to the advancement of crowdfunding platforms, enabling analysis of big data to extract key indicators influencing campaign success and providing accurate predictive models to estimate the probability of meeting financial targets. AI also aids in risk assessment and early fraud detection, as well as personalizing user experience through recommendation systems (Zhang & Chen, 2022).

However, increased reliance on AI raises challenges related to algorithmic bias and personal data protection, requiring governance mechanisms that ensure fairness, transparency, and accountability in the use of such technologies.

Despite numerous advantages, AI's deployment has raised substantive challenges regarding algorithmic bias and data protection, necessitating the adoption of sound digital governance mechanisms that guarantee justice, transparency, and accountability in deploying these technologies (World Economic Forum, 2024). Nonetheless, AI has contributed to enhancing platform efficiency, increasing trust levels, and narrowing financial exclusion gaps, positioning it as a strategic tool for the sustainable future of crowdfunding.

3. The Role of Artificial Intelligence in the Development of U.S. Crowdfunding Platforms

As the volume of crowdfunding activities expands and their operations become increasingly complex, the need has grown for tools capable of managing vast amounts of data and enhancing decision-making processes, particularly with respect to predicting campaign success and reducing risk. In this context, artificial intelligence (AI) has emerged as a key foundation that strengthens platform efficiency and boosts the confidence of both investors and funders (Zhang & Chen, 2022).

3.1 Practical Applications of AI in U.S. Crowdfunding

U.S. platforms employ several practical AI applications that have improved crowdfunding efficiency and user experience, including:

- Big Data Analysis: Platforms such as Kickstarter and Indiegogo analyze millions of past campaigns to extract success patterns, including timing and quality of promotional content (Mollick, 2014).
- Predictive Models: Platforms like Wefunder use machine learning algorithms to estimate the likelihood of a startup successfully attracting funding (PwC, 2023).
- Risk Assessment: In P2P lending, LendingClub and Prosper use AI algorithms for creditworthiness analysis that surpass traditional models in precision (World Bank Group, 2022).
- Fraud Detection: GoFundMe developed intelligent systems to track suspicious patterns or fake accounts and proactively stop fraudulent campaigns (GoFundMe Report, 2021).
- Smart Personalization: Crowdfunding platforms use recommendation systems similar to those of Amazon and Netflix to present campaigns aligned with investors' interests (Zhang & Chen, 2022).
- Improved User Experience: Some platforms deploy AI-powered chatbots to provide immediate support, reducing operational costs and enhancing participant satisfaction (Accenture Global, 2023).

These applications indicate that AI has become a strategic cornerstone in the crowdfunding ecosystem, combining operational efficiency, transparency, and trust to promote financial inclusion and sustainable growth.

3.2 Impact of AI on Crowdfunding Effectiveness

AI applications have driven a tangible transformation in crowdfunding effectiveness through several primary impacts:

- Increased Success Rates: Thanks to predictive models based on big data, campaign success rates increased by around 20% (PwC, 2023).
- Enhanced Trust: Fraud detection technologies and behavioral analytics strengthened trust among individual investors by ensuring higher transparency and credibility (Accenture Global, 2023).
- Reduced Financial Exclusion: Through intelligent risk-assessment tools, funding became accessible to groups previously excluded from traditional finance, supporting financial inclusion (Saniya et al., 2022).

Therefore, AI has not been merely a technical tool but an enabling factor enhancing crowdfunding sustainability via a combination of efficiency, trust, and openness.

3.3 Challenges Associated with AI Employment in Crowdfunding

Despite the significant advantages generated by AI deployment in crowdfunding platforms, this trend faces a set of technical, ethical, and regulatory challenges that may limit the sustainability of positive outcomes if not addressed systematically and thoughtfully. Among these challenges:

- Algorithmic Bias: Fairness in algorithm design is a critical issue, as underrepresentation in data or biased datasets may exclude certain social groups from funding opportunities (OECD, 2023).
- Data Protection: These systems' reliance on large quantities of users' personal data raises real questions about information confidentiality and cybersecurity, especially given the growing number of digital attacks (European Commission, 2023).
- High Costs: Building effective AI systems requires substantial investments in digital infrastructure and qualified technical personnel, which may burden small or nascent platforms (Accenture Global, 2023).

Thus, integrating AI into the U.S. crowdfunding ecosystem represented a qualitative shift that increased operational efficiency, transparency, and trust among stakeholders. Yet, sustaining this success depends on effective governance that embraces equity and fairness in algorithm design, ensures data protection, and balances innovation with social responsibility. The feasibility of transferring this experience to developing environments such as Algeria relies on the readiness of digital infrastructure and regulatory frameworks to accompany technological transformation.

4. Crowdfunding's Role in Reducing Financial Exclusion and Enhancing Financial Inclusion

Financial exclusion remains one of the principal developmental challenges in modern economies, depriving many individuals and businesses of access to formal financial services and thus limiting economic participation and deepening social inequalities (Demirgüç-Kunt et al., 2018). Conversely, financial inclusion aims to enable all groups to benefit from secure and affordable financial services, thereby promoting economic growth and social justice. In this context, crowdfunding has emerged as an innovative financial tool that helps shrink exclusion gaps by providing flexible and alternative funding channels for individuals and startups (World Bank, 2022).

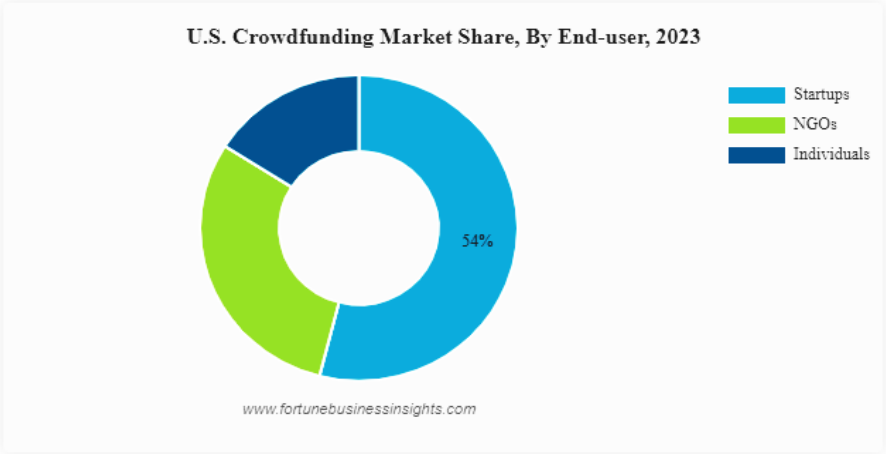
4.1 Contribution of Crowdfunding to Reducing Financial Exclusion

Crowdfunding contributes to reducing financial exclusion in several ways by enabling marginalized groups and small projects to turn to alternative funding sources beyond traditional banking constraints. Key contributions include:

- Financing Marginalized Groups: Platforms like GoFundMe and Kickstarter have enabled low-income groups and micro-enterprises to obtain seed funding outside traditional banking channels (Massolution, 2023).
- Inclusive Investment: Equity crowdfunding allows individuals to make small investments (between USD 100 and 500) in startups, a domain previously reserved for large investors (OECD, 2023).
- Lowering Costs of Alternative Financing: Digital platforms decreased administrative and procedural costs compared to traditional bank loans, making financing more accessible to a wider audience (PwC, 2023).
- Promoting Entrepreneurship and Innovation: Many leading startups, such as Oculus VR, began as crowdfunding campaigns, using the mechanism to transform ideas into successful enterprises before acquisition by major corporations (Mollick, 2014).

Data indicates that startups constitute the largest beneficiary segment of crowdfunding in the U.S., representing approximately 54% of the market in 2023, followed by NGOs and individuals.

Fig.1. Market share of crowdfunding in the United States by end-user type in 2023.



Source: Fortune Business Insights, 2024

4.2 Quantitative Indicators on Crowdfunding's Role in Enhancing Financial Inclusion (2019–2024)

Crowdfunding became one of the main drivers for expanding financial inclusion in modern economies by widening the base of financial service beneficiaries and integrating traditionally underrepresented groups into the formal financial system. The quantitative indicators for the period 2019–2024 highlight the growing role of this mechanism in creating fairer and more inclusive investment and funding opportunities.

- Expanding the Base of New Investors: Data (Fortune Business Insights, 2024) indicates that more than 40% of investors on platforms like Wefunder and StartEngine belong to middle-income groups who had not previously invested in traditional financial markets. This demonstrates crowdfunding's capacity to integrate new segments into the formal financial system.

- Empowering Underrepresented Groups: According to Massolution (2023), about 20% of funded projects were led by women or youth-led startups—groups that typically face difficulties accessing traditional bank financing—making crowdfunding an instrument of economic empowerment.

- Crisis Response and Economic Resilience Support: During the COVID-19 pandemic, crowdfunding supported over 120,000 small projects in the U.S., helping protect thousands of jobs and ensuring continuity for startups and SMEs during crises (GoFundMe, 2021).

These indicators underscore crowdfunding's expanding role as an alternative and innovative financial mechanism that enables broad segments of the population and small businesses to access independent financing sources, contributing to their inclusion in the formal economic cycle. Therefore, crowdfunding can be considered an effective tool in reducing financial exclusion and promoting inclusion in modern economies.

4.3 Social and Economic Dimensions of Financial Inclusion Through Crowdfunding

Crowdfunding contributes to achieving financial inclusion through multiple dimensions, particularly social and economic ones:

- Social Dimension: Crowdfunding fosters community solidarity through donation and support campaigns and enables vulnerable groups—especially women entrepreneurs and youth—to access sustainable financing away from traditional banking complexities (OECD, 2023).

- Economic Dimension: Crowdfunding supports startups, SMEs, and innovation, creating jobs and expanding participation in the formal financial system, thereby supporting inclusive economic growth (World Bank, 2022).

4.4 Sustainability Challenges of Crowdfunding

Despite its positive impact on reducing financial exclusion, crowdfunding sustainability faces several fundamental challenges:

- Continuity of Funding: Statistics show that about 40% of campaigns do not reach their funding targets, affecting project sustainability and investor confidence (PwC, 2023).
- Investor Protection: Risks persist, notably those related to fraudulent or unsustainable projects, especially where legal and regulatory frameworks are weak (OECD, 2023).
- Digital Divide: Crowdfunding heavily depends on internet access and digital literacy, potentially excluding groups in rural or less-developed areas from benefiting from this mechanism (World Bank, 2022).

In sum, crowdfunding has effectively enhanced financial inclusion in the U.S. by widening access to finance and investment, but sustaining this role requires a flexible regulatory framework, advanced digital infrastructure, and effective investor protection mechanisms. Applying this experience to emerging contexts like Algeria demands institutional and legislative preparation, digital and financial literacy development among entrepreneurs and investors, and broader ecosystem readiness.

5. Lessons Learned from the U.S. Experience

The U.S. crowdfunding experience shows that the success of the model was not simply a byproduct of technological advancement but a result of a complex interaction between clear legal frameworks, advanced technological infrastructure, and a financial culture supportive of innovation. This raises a central question: to what extent can this experience be transferred and adapted to the Algerian context, considering institutional, economic, and social specificities?

5.1 Importance of Legal and Regulatory Framework

The enactment of the JOBS Act in 2012 marked a fundamental shift in U.S. crowdfunding by formally permitting online equity financing under SEC oversight, thereby boosting investor trust and reducing regulatory and fraud risks, enabling rapid platform growth (Bradford, 2022). The U.S. experience suggests that a clear and flexible legal framework is foundational for crowdfunding success and sustainability. Absent such legislation, national platforms will remain limited in impact and unable to attract investors or ensure user trust—highlighting the urgent need to develop Algerian legislation that aligns with modern digital financing requirements.

5.2 U.S. Leadership in Pooled Capital Volume

According to The Business Research Company (2024), crowdfunding models in the U.S. raised over USD 36 billion in 2023, leading globally, followed by China (~USD 16 billion) and the UK (~USD 4.7 billion) across various crowdfunding types (investment, lending, reward-based) (The Business Research Company, 2024a).

The U.S. figures emphasize the importance of an effective regulatory and supervisory framework that balances encouraging financial innovation with investor protection, implying Algeria should develop a clear legal ecosystem to build trust and stimulate adoption.

5.3 Diversifying Crowdfunding Models

The U.S. experience features diverse crowdfunding models, from donations and rewards to equity, debt, and real estate, which attracted wide segments of funders and beneficiaries (Mollick, 2023). The U.S. market leads with continuous growth, with projections indicating compound annual growth rates of around 16% between 2023 and 2030. Lending-based crowdfunding leads the market, followed by equity-based models. Social media and technological innovations such as AI fuel market expansion (Grand View Research, 2024).

Limiting crowdfunding to donation-based models confines it to a charitable domain; adopting multiple models can convert crowdfunding into an effective investment tool to support startups that generate measurable economic impact.

5.4 Integrating Smart Technologies into Crowdfunding

U.S. platforms adopted smart technologies like AI for risk assessment and fraud detection and blockchain for transparency and reliable transaction tracking. This integration enhanced platform efficiency, increased trust between funders and beneficiaries, and stabilized the market, contributing to continued growth (Grand View Research, 2023).

Investing in smart technological solutions is a strategic necessity. AI enables effective risk management, while blockchain enhances transparency and trust-ensuring sustainable platform growth and transforming crowdfunding into an effective investment channel for startups and modern economic projects.

5.5 Encouraging Mass Participation

U.S. regulations allowed participation in crowdfunding with relatively small contributions (USD 100–500), broadening the investor base to include youth and the middle class and thereby promoting inclusive and democratic financing (Ziegler et al., 2022).

Allowing citizens to invest small and affordable amounts can transform crowdfunding into an accessible financing and development tool, rather than remaining exclusive to financial elites or large investors; this enhances social trust and financial inclusion within the national economy.

5.6 Financial Culture and Awareness

A major reason for crowdfunding's success in the U.S. is a relatively high level of financial literacy, with universities, media, and financial institutions contributing to public awareness about digital investment mechanisms, their risks, and opportunities. Collaboration between public and private sectors also played a critical role in building trust in digital platforms (OECD, 2022).

Low financial literacy among the public is a significant barrier to crowdfunding adoption, as it limits individuals' ability to understand this novel investment form. Launching national financial education programs—coordinated among universities, regulators, and financial institutions—is a strategic necessity to boost awareness and participation.

6. Challenges in the Algerian Context

Learning from the U.S. does not imply wholesale replication but adapting the model to Algeria's economic, legislative, and social specificities. Local adoption faces structural and institutional challenges requiring comprehensive and phased interventions.

Foremost among these challenges is the absence of an organized legal framework: crowdfunding remains outside formal legislation, diminishing local and foreign investor confidence and reducing the attractiveness of the model (World Bank, 2023). Weak technological and digital infrastructure also represent major obstacles, as Algeria lacks advanced national platforms capable of leveraging AI and blockchain to ensure transparency and efficient transaction monitoring.

On the societal level, low financial literacy and limited investment awareness among youth and entrepreneurs hamper adoption, as public understanding of crowdfunding benefits and mechanics remains limited. Religious and legislative considerations persist, particularly for interest-based models (debt or interest-bearing equity), prompting the need to innovate Sharia-compliant financing formulas.

Therefore, the success of any Algerian experience in this field hinges on policymakers' ability to implement flexible legislative reforms, develop advanced digital infrastructure, and launch national financial education programs to make crowdfunding an effective instrument for improving financial inclusion and supporting startups within a comprehensive developmental vision.

7. Conclusion

In conclusion, AI-enabled crowdfunding is not merely a digital fundraising tool but a transformative mechanism that reshapes the relationship between capital and society. Its adoption presents a strategic opportunity for Algeria to bridge financial gaps, stimulate entrepreneurship, and foster inclusive economic growth.

- **Key Findings:**

The study identified the following key findings:

- Crowdfunding combines technological innovation with financial empowerment, effectively reducing financial exclusion and promoting inclusion.
- The U.S. experience demonstrates that success arises from the interplay of flexible legislation, advanced technological infrastructure, and a financial culture based on awareness and trust.
- Artificial intelligence enhances platform efficiency through precise risk assessment, campaign prediction, fraud detection, and improved user experience.
- AI integration broadens the investor base, fostering transparency, democratic investment, and a more inclusive financial ecosystem.
- In Algeria, challenges such as weak digital infrastructure, limited financial literacy, lack of regulatory frameworks, and the need for culturally adapted models represent both obstacles and opportunities for reform.

- Recommendations:

Based on the preceding findings, the study puts forward the following recommendations:

- Enact a national crowdfunding law inspired by leading international models to ensure legal protection for platforms, investors, and beneficiaries.
- Develop advanced digital infrastructure leveraging AI and blockchain to enhance transparency and trust.
- Strengthen financial and digital literacy through awareness programs in collaboration with universities, regulators, and financial institutions.
- Encourage mass participation by enabling small-value contributions to democratize financing access.
- Adapt financing models to comply with Islamic finance principles for broader societal acceptance.
- Integrate AI-enabled crowdfunding into national digitalization and economic diversification strategies to foster innovation and inclusive development.

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