
The future of blockchain-based crowdfunding in the Arab countries: prospects and challenges

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Abstract :

Crowdfunding is a new field which improves a country's economic competitiveness by supporting several small businesses and entrepreneurs in the financial sector. The platform helps in gathering a small number of money from a large group of people and as a result increases the customer base. In this paper, we outline the reality of Arab countries's crowdfunding platforms. In which we present a 32 crowdfunding platforms and analyze the opportunities that has given by the blockchain-based crowdfunding to medium and small companies using descriptive and analytical approach. The study concludes that blockchain could solve crowdfunding drawbacks such as fraud, money laundering and information asymmetry as well as it considered a resolution that allows a functional and low-cost equity registration, equity transaction processing and shareholder voting in the crowdfunding market.

Keywords: Crowdfunding; Blockchain; blockchain-based crowdfunding; Arab countries.

Jel Classification Codes : G20; G23

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1. Introduction.

As digital innovation is affecting the financial sector, pushing apart older methods and infrastructure, and leading to the creation of new business models. For instance, banking services based on internet and digital financial operations are considered as an important ways to enhance financial inclusion throughout safety, affordability, and accessibility. Also, crowdfunding could help people who have restricted financial access to quickly raise funds at suitable fees. Therefore, Crowdfunding is seen as a creative way to enhance financial inclusion.

Many Arab countries suffer from financial exclusion due to the limited access to financial services, lack of money and necessary documentation, which point out the fragility in the Arabian financial system. Crowdfunding is actually a part of the financing application of financial technology. It is a subcategory of financing, which increased after 2008's crisis in which the borrowers looked for another ways of investment with better yield. The crowdfunding platforms "kickstarter", "Indiegogo", "mystart", and "fondly" are the famous and common ones nowadays. (Muneeza, Aishah Arshad, & Arifin, p. 83) Similarly, the Arab countries have 32 crowdfunding platforms, they are used to finance medium and small sized companies with an aim of breaking the traditional ways of financing. However, crowdfunding platforms still have many weaknesses that needed to be improved even though it has several advantages. It is worth to be noted that the nowadays crowdfunding platforms are centralized, which lead to several problems such as fraud cases, money laundering, and information asymmetry. Online crowdfunding lead contributors to be susceptible to fraud because traditional legal and reputation security measures may not work. Therefore these platforms need to be decentralized by implementing blockchain technology. Blockchain-based crowdfunding could solve the aforementioned issues with traditional crowdfunding.

Problem of the study: currently, crowdfunding is coping in the Arab world since it fills the financing gap and supporting an innovative entrepreneurial sense of a new generation which connected via internet and oriented by the new technology. Therefore the problematic of this research paper is:

What are the opportunities and challenges of implementing blockchain technology in Arab crowdfunding platforms?

Importance of the study: this paper analyzes the function of crowdfunding and blockchain in expanding funding opportunities to medium and small sized companies by implementing blockchain technology.

Objective of the study: this paper is aiming to get the following:

- To address the basics of crowdfunding and blockchain.
- To investigate the areas of crowdfunding platforms in Arab countries.
- to discuss the opportunities of implementing blockchain in crowdfunding platforms.

Study sections: The structure of this paper is organised as follows.

- Crowdfunding in the Arab countries
- The future of Blockchain-based Crowdfunding in Arab Countries: Prospects and Challenges

2. Crowdfunding in the Arab countries:

2.1. Concept of Crowdfunding:

Crowdfunding as shown in figure 1 is a method of gathering small amounts of money from a large number of persons throughout platforms, which is connected to the internet. (Rahman, 2022) The core of crowdfunding is presented into two aspects: first, raising small amounts of money from a large number of people; second, the transactions is based on internet. The World Bank also defines crowdfunding as a funding way that based on internet for enterprises to raise

money in the form of either donations or investments from multiple individuals. (Muneeza, Aishah Arshad, & Arifin, p. 83)

Figure 1 : Diagramatic representation of crowdfunding



Source: Righi, Alberti, & Singh, 2020, p. 118

Crowdfunding is a method of raising money for an idea, business by gathering investors who are interested in the project. The investors pitch in capital until the goal is met and the operation is processing. It is a kind of support to any entrepreneurial project, organization, art with an aim to break the traditional barriers of financing and to endorse social change past several years, It has shown huge improvement as a result of advance in the technology. It has three major aspects to it, the project proposers who come up with the idea, the investors that are interested in that idea, and the internet that brings them all together.

2.2.Type of Crowdfunding

Crowdfunding can be divided into four categories: loan, equity, reward, and donation. While loan, equity involves financial returns, reward, and donation have no payback. (Muneeza, Aishah Arshad, & Arifin, p. 83) It is worth to be noted that platforms are also divided between traditional crowdfunding platforms, and Sharia-compliant platforms, both of which are encouraging to Directing surplus financial resources to sectors that lack them. (Fund, 2021, p. 06) The 4 principle forms are: (Arabcrowdfunding, 2022)

- Equity crowdfunding: all participants receive a stake in the company. It is One of the kind of crowdfunding that's reaching popularity, because this allows most start-up companies to finance their business without giving up control to the investors.
- Donation crowdfunding: donations are dedicated to charity.
- Lending crowdfunding: lenders are reimbursed for their investment after a period of time.
- Reward crowdfunding: in return of their investments, investors receive a physical item or service related to the business they are supporting.

Crowdfunding has reached to 114 billion dollars in transaction value in 2021. The highest transaction value of US\$ 2.22 m is recorded by China. The reduce of agents' number is the main success factors which is reasonable for the growth of crowdfunding. which figure out by the reducing of commission fee as money is directly transmitted from contributor to the project owner through the platform of crowdfunding. (Statista, 2021)

2.3.The reality of crowdfunding in Arab countries

In 2007, the United States (US) is the first who started to apply crowdfunding and it was followed by other markets after the 2008 global financial crisis. "Kickstarter", "Gofundme" and "Lendingclub" are the most popular platforms in America. Crowdfunding offers an alternative to traditional banking, which has grown rapidly in markets driven by technology, as well as macroeconomic and regulatory factors. (Muneeza, Aishah Arshad, & Arifin, p. 83) The final collection of all peer-to-peer crowdfunding platforms get an overview of 879 platforms. (p2pmarketdata, 2022) Funding platforms are considered one of the most important sources of funding for small and medium-sized companies, as these platforms come in second place after venture capital as a source of financing for these institutions. crowdfunding is immediately rising in

the Arab world since it acts as filling the financing hole and supporting a creative entrepreneurial sense of a new generation which is highly internet connected and tech oriented. Recently, there is a growth in the number of crowdfunding platforms in Arab countries, which has reached about 32 crowdfunding platforms as illustrated below:(Fund, 2021, pp. 9-10)

In Jordan, there are two platforms, “Afkar Mina” and “Liwa”, where crowdfunding is used in Jordan to fund social services projects to help people who do not have access to the traditional banking system, where the Crowdfunding aims to provide funds to Jordanian entrepreneurs by attracting and persuading investors to fund Innovative projects, especially the implementation of educational projects, in addition to financing creative projects in return for simple financial rewards for financiers.

In the UAE, The state attaches great importance to the activity of crowdfunding platforms in light of its strategies aimed at Encouraging small and medium enterprises that represent the backbone of the UAE economy. According to The Ministry of Economy’ data they are formed more than 94 percent of the total companies operating in the country, and contributes about 68 percent in private sector employment, and more than 60 percent of the gross domestic product with the state's tendency to raise this percentage to 70 percent in 2021. Despite this, statistics indicate that approximately 50 to 70 percent of funding applications submitted by Small and medium-sized institutions are rejected from banks, thus these institutions receive only a modest percentage of credit. There are a number of platforms that engage in crowdfunding activity in the UAE, the most prominent of which are the “Dubai Next” platforms and “Beehive” and “Eureka”. “The Dubai Next” platform is the first government crowdfunding platform that aims to provide support to the Community of Innovative and Creative Youth. “Beehive” platform also is the first online platform that allows investors to provide loans to owners of small and medium companies in the UAE. “Eureka” platform also gives crowdfunding for SMEs and the public through equity investment.

In Bahrain, crowdfunding platforms are one of the alternatives to empowering start-ups and small enterprises and SMEs, supporting the fintech ecosystem, as well as increasing the offering of Shariah-compliant financing services, Which contributes to bridging part of the financing gap in Bahrain and providing suitable opportunities for each of the investors and lenders, and contribute to the development of innovative solutions in the Kingdom. In addition to that, the central bank of Bahrain has been keen to review the crowdfunding platform operator regulations to be parallel with the economic recovery plan for the financial sector in terms of providing a suitable environment for crowdfunding platform operators. (Bahrain, 2022)

In Tunisia, crowdfunding is expected to further support investment as well as increase exports. There are two platforms in Tunisia, which are “Afrikwity” and “Cofundy”, these two platforms are using to practice crowdfunding activity and providing job opportunities for young people.

In Algeria, the crowdfunding activity is still in the process of being established and put suggestions and laws regulating for this activity, but there are some platforms such as “Criky” and “Twiiza”, which provides simple lending services to some social projects and entrepreneurs in order to develop their innovations and their small and medium enterprises.

For **Saudi Arabia**, the “Kingdom of Saudi Arabia Vision 2030” is undertaken to develop and encourage the SMEs by facilitating access to finance opportunities. Then the vision aims to raise the bank credit ratio granted to this sector from 5% currently to 20% in 2030. There are eight Crowdfunding platforms, which operates in the Saudi market. The platforms are “Scoopier”, “Manafa”, “Tharwa Al Maliah”, “The Digital Platform”, “Osool and Bakheet Investments”, “Sukuk Al-Maliyah”, “Imkan Arabia Limited”, “Wethaq Al-Maliyah”. The “Manafa” platform is one of the

most prominent of these platforms. The platform's activities also contribute to increasing levels of financial inclusion and achieving sustainable development goals in the Kingdom of Saudi Arabia. The kingdom helps to attract a new segment of investors, companies and owners of capital, which contributes to providing modern financing products and services, which are considered one of the alternatives available to emerging, small and medium enterprises that may face some challenges in accessing banks and in a manner that enhances the level of financial inclusion in the Kingdom.

In Palestine, there are two platforms, “Palestine Build” and “Crowdpal” which practice the activity of crowdfunding based on donations and crowdfunding based on shares (participation in equity), where the “Let us build Palestine” platform is considered the first platform to support projects with a positive impact in Palestine. The Palestinian community, where the platform identifies the needs of the community and then conducts a promotional campaign to collect donations to implement projects and innovations for youth and small and medium enterprises, while the “Crowdpal” platform is the first new crowdfunding platform for shares in Palestine, it was created specifically to support Palestinian entrepreneurs.

In Lebanon, crowdfunding activity is mainly focused on lending, with some simple activities related to investing in stock companies, and one of the most important crowdfunding platforms in Lebanon is the “Help for Leb” platform.

In Egypt, there are three prominent crowdfunding platforms which are: “Shekra”, “Madad” and “Yomken”. These platforms act as contact points to collect funds from people who donate to people in need, especially those who are in financial insolvency, as well as fund start-ups.

The Moroccan government and the private sector have focused on crowdfunding as one of the most important tools for developing entrepreneurship. Currently, there are two platform, “Smala” and “Cotizi”. It is also indicated that there are other crowdfunding platforms operating in the Arab world, such as Arab real estate crowdfunding platforms via the Internet, such as “Durise”, “Hbr” and “Estateup” and “Zoomal” platform, which operates in the Middle East in general.

Crowdfunding platforms in the Arab countries provide their clients with many services, the most important of which are financial due diligence services, legal and advisory services, in addition to the services of designing and managing crowdfunding campaigns and providing advice to project holders before placing them on the crowdfunding platform and promoting the projects presented on the platform. The Middle and East and North African crowdfunding market is estimated at USD 7 billion in the region. (Arabcrowdfunding, 2022) This specific lending segment is still facing two main barriers: the lack of clear regulations and the absence of reliable online payments in the Arab world, both internal and cross-border.

2.4. Challenges in Crowdfunding

While Crowdfunding has revolutionized the way companies and entrepreneurs raise money for their projects, leading to more innovation and increased economy, it does not come without flaws.

- Fraud cases is one of the crucial issues that have been in traditional crowdfunding platform because traditional legal and reputation security measures may not work. (Saadat, Syed, Husna, Rasheed, & Megat, 2019, p. 410)
- The second issues with current Crowdfunding platforms is that a campaign starter, can, in theory, run away with the raised money and not deliver what was promised during the campaign. Such scams are unfortunately very common, and have left many backers and investors disappointed.(costansin, 2019)
- Another issue associated with Crowdfunding platforms is that the backers have no guarantee that the money raised will be used to actually develop the product. While this may be similar

to the first issue, imagine a situation where a campaign starter decides to spend half the money raised to further market the product rather than building the product and deliver within the promised time-frames. This is also another common issue. (costansin, 2019)

- Moreover, over 75% crowdfunding projects deliver products later than expected. (Saadat, Syed, Husna, Rasheed, & Megat, 2019)

It is worth to be noted that online crowdfunding platforms need to be decentralized by implementing blockchain technology. Blockchain platform could solve the aforementioned issues with traditional crowdfunding. Also, it allows people who are funding the project, to decide when and where the funds are released. blockchain, guarantees visibility at all phases of the project.

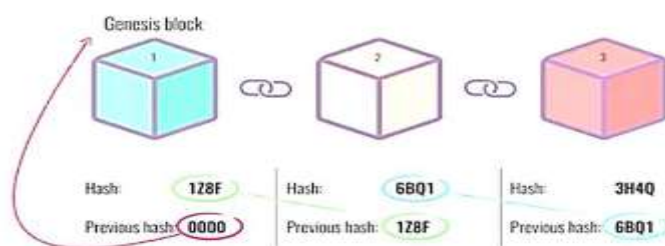
3.The future of Blockchain-based Crowdfunding in Arab Countries: Prospects and Challenges

3.1. Overview of Blockchain

a. Blockchain concept

A Blockchain is a set of connected data through a process called cryptography. Each data structure record in the Blockchain includes the cryptographic hash of its predecessor, a timestamp of when the new record was formed as shown in figure 2. Any single entity that has recorded some transactional data in the blockchain also has a copy of all records that are part of the blockchain. (Rabbani, 2020, p. 07) Blockchain is a new application layer to process and store the present stack of internet protocols, adding an entire new line to the internet to enable economic transactions, it can be used for any form of storing asset, inventory, and exchange, including every field of finance, economics, and money; hard assets (physical property). (Heian, 2019, p. 22) The Federal Reserve Board defined it “as some combination of components including peer-to-peer networking, distributed data storage, and cryptography that, among other things, can potentially change the way in which storage, recordkeeping, and transfer of a digital asset is done.” (Girasa, 2018, p. 29)

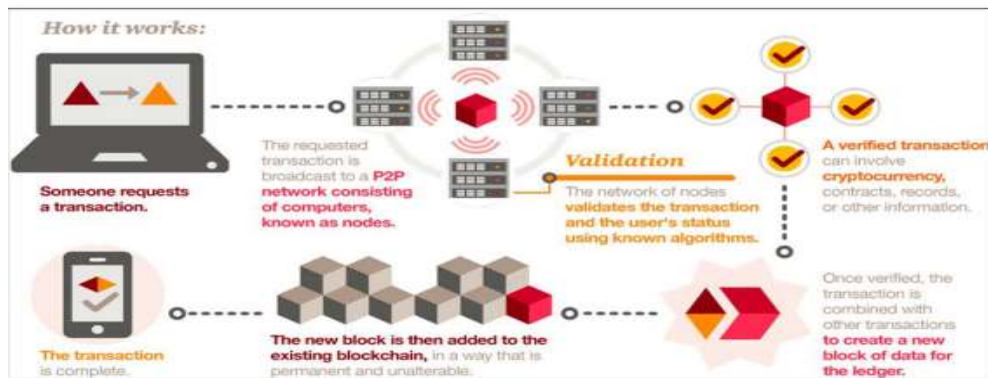
Figure 2: The structure of blockchain



Source: Manikandan, Valliyammai, & Karthika, 2020, p. 38

There are three kinds of blockchain application: private blockchain, public blockchain and hybrid blockchain. Private blockchain is a kind of permissioned ledger. It is preferable by financial institutions and is used internally by an organization for different usages such as auditing, regulatory compliance, and other needs of the institution. It is useful for security from external attack, low cost, unique control over who may access data, and it is more efficient for internal recordkeeping. Public blockchain is a permissionless ledger. It is an open source, that gives a permitting access to anyone and allowing blocks to be added to the blockchain. In addition, users can engage in transactions and advocate them; remain anonymous particularly if decentralized such as Bitcoin; and there is security from hacking and other malfeasance. Hybrid blockchain is exemplified by banks which communicate with each other within a closed environment. (Girasa, 2018, p. 32) The figure below illustrates how blockchain works.

Figure 3: How blockchain works



Source: McNamara, 2018, p. 09

b. Benefits of Blockchain

Some of the advantages introduced by blockchain technology are the following: (Gupta & Stuti, Blockchain technology application in indian banking sector, 2018, p. 78)

- a) **Reduced transaction costs:** blockchain ensures that payment and settlement takes place simultaneously without the intervention of banks or any kind of third party, which leads to reduced cost in management of funds. It is also applied in cross border remittances, which can help participants to get best exchange rates due to near- real time processing of transactions in the foreign- exchange market.
- b) **Efficiency:** it improves transaction quality and transaction processing as it reduces the time of decision making across the organisations with minimal intervention. It reduces the requirement of duplicate record keeping and minimize errors and frauds leading to faster payment and settlement.
- c) **Eliminates intermediaries:** as it is based on cryptography, blockchain replaces third party intermediaries' costs as parties transact directly with each other.
- d) **Transparency:** Blockchain helps in maintaining a fixed record of transactions, which provide a kind of transparency in financial settlements.

3.2. Blockchain- based crowdfunding opportunities for Arab countries.

Crowdfunding and traditional banking's problems could be reduced by blockchain. It is a solution that provides an efficient low-cost equity registration, equity transaction and transfer, and investors voting in the crowdfunding industry. It also reduces legal risks related to funding. (Muneeza, Aishah Arshad, & Arifin, p. 88) Building a crowdfunding platform on blockchain gives numerous benefits including: (Muneeza, Aishah Arshad, & Arifin, p. 85)

1. The voting system based on blockchain allows the investors to participate in a kind of governance in a cost-effective way;
2. Using smart contracts could easily trace any changes in the agreement between the crowd and project initiator, thereby allowing regulators to determine fraudulent fundraising;
3. Preventing identity theft and money laundering by developing an identity management system that gives full control to users via blockchain.
4. Prevent intermediary like banks and payment providers by implementing digital currency;

Three parties actively involved in an existing crowdfunding transaction: funders, fundraisers and crowdfunding platform. The fourth party is a bank by which the money is charged. In crowdfunding platform based on blockchain, bank will be replaced with the crypto-currency wallet. Most crowdfunding platforms adopt two fundings options: “all or nothing” or “keep it all”. Most widely used crowdfunding model is “All or nothing” model. “All or nothing” model is expressed by the idea that the project can only be started when the target investment is reached else funds will be returned to the funders. Crowdfunding platforms make a profit by charging a percentage commission on funds paid out to fundraisers. The commission is usually counted from the total funds raised, and/or based on achieving a “Fully-funded” investment. In blockchain based crowdfunding cryptocurrency can be mined and retained by funders until they find the suitable project. As the system is decentralized, fundraisers will pitch the accurate project to the currency holder which suits its needs and yields. Moreover, the blockchain system is transparent so funders will trust the platforms in all their aspects such as the start of the project, follow up returns, and contract conditions.

Blockchain crowdfunding eradicates the need for intermediaries, by allowing the formation of decentralized crowdfunding platforms, which process freely based on a peer-to-peer network. (Righi, Alberti, & Singh, 2020, p. 125) Thus, this process reduces costs. In this way, funders will be confident that their money will be spent in the right place while having the record of each spending, because money does not go through banking channels (Righi, Alberti, & Singh, 2020, p. 127) Figure 4 illustrates blockchain-based crowdfunding's framework.

Figure 4 : Blockchain-based crowdfunding's framework



Source: Hassija, Chamola, & Zeadally, 2020, p. 04

There are many examples of blockchain crowdfunding. As an example, “Fundedbyme”, “StartEngine” and “WeFunder” have already accepted bitcoin. (Muneeza, Aishah Arshad, & Arifin, p. 88) Also, crowdfunding platforms such as “Swarm”, “koinify” and “Lighthouse” create their own coins (cryptocurrency) which can be traded and exchanged by other cryptocurrencies. (Righi, Alberti, & Singh, 2020, p. 127) However, there are several technical and legal issues that prevent blockchain technology to be widely implemented in the crowdfunding market. Therefore, the Arab countries are required to accelerate the process of implementing blockchain in order to facilitate transactions and ensure greater financial inclusion. Although Saudi Arabia, The United Arab Emirates, Bahrain and Tunisia have an experience with this technology, yet it is in its primary stage in spite of many studies indicated that there are promising opportunities for using the blockchain technology to enhance financial services.

4. Conclusion:

Crowdfunding is an alternative funding option in the financial market which enhances a country's economic competitiveness by supporting many investors and shareholders. Gathering a small amount of money from a large group of people is the core of crowdfunding platforms and as a result increases the customer base. The emergence of blockchain has paved the way for making

peer-to-peer transactions more fair, transparent, secure, open, and cost-effective. Therefore, the Arab crowdfunding platforms could effectively enhance their financing by implementing blockchain.

Results: this study is concluded to the following results:

- ✓ crowdfunding expresses the idea of gathering small amount of money from numerous individuals or organizations, to fund a project, a business or personal loan, and other needs via online platform.
- ✓ Arab Crowdfunding is an alternative financing method for major Arab financial institutions using connected platforms.
- ✓ Nowadays crowdfunding platforms is facing two main obstacles: the lack of clear regulations and the absence of reliable online payments in the Arab world, both domestic and cross-border.
- ✓ Efficient and low-cost equity registration, equity transaction and transfer, and shareholder voting in the crowdfunding platforms, and limiting legal risks related to fund management are the main benefits of blockchain crowdfunding platforms.
- ✓ All users can view the records of each transaction which can be seen. This is due to the transparency in blockchain transactions. Thus, it increases contributor's confidentiality when contributing to campaign.
- ✓ Even though some Arab country have an experience with the blockchain's implementation, yet it is in their primary level. Therefore, they are required to accelerate the implementation of this technology in order to facilitate transactions and ensure greater financial inclusion.

Recommendations: the following points are recommended:

- ✓ Blockchain culture should be disseminated through various formations and workshops and integrated into the curricula of educational institutions;
- ✓ Crowdfunding in Arab countries can be an opportunity to solve unemployment problems and give young Arab entrepreneurs easy fundraising so that they can realize their dream.
- ✓ The Arab Crowdfunding platforms could get the sustainability that provide several benefits in terms of real-time transparency and cost savings;
- ✓ Blockchain applications are still oriented for few implementations. Thus, it is viewed as a solution to expand its implementation in several financial operations.

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