

**Rezwanullah Noori,**  
Faculty International Economic Relations (IER),  
Department: Global Economy and International Finance,  
Master's Program in International Finance, first year of study,  
Financial University under the Government of the Russian Federation

## **PROBLEMS AND OPPORTUNITIES OF CRYPTOCURRENCY IN AFGHANISTAN: DIGITAL FINANCE, ECONOMIC CHALLENGES, AND FUTURE PROSPECTS**

**Abstract.** Cryptocurrency and digital finance have developed as important topics in the modern financial sector. After the political and economic changes in 2021, the cryptocurrency conversation became strong in Afghanistan. The collapse of parts of the banking system, restrictions on international transactions, sanctions, inflation, unemployment and lack of trust in financial institutions encouraged some Afghans to look for alternative financial systems. Cryptocurrency looked to be a possible solution for remittances, savings and online transactions. Nevertheless Afghanistan also faces major difficulties like low internet penetration rates, poor digital literacy, legal ambiguity, security risks and government restrictions on cryptocurrency trading. This paper highlights the opportunities and obstacles of cryptocurrency in Afghanistan and assesses whether the digital currency can contribute to the future development of the Afghan financial sector.

**Keywords:** Cryptocurrency, Afghanistan, Digital Finance, Bitcoin, Block Chain, Remittances, Financial Sector.

### **Introduction**

In the twenty-first century, technology innovation has revolutionized almost every sector of the global economy. In particular, internet technologies, mobile banking, artificial intelligence and blockchain systems have led to a substantial digital transformation of the financial sector. Cryptocurrency has been one of the most important financial innovations in recent years. Cryptocurrency is a digital currency that uses cryptography and blockchain technology to enable secure financial transactions without the need for traditional banking systems or central financial authorities. The first successful cryptocurrency was introduced in 2009 by an unknown person or group of people under the name Satoshi Nakamoto. Since then, cryptocurrencies such as Ethereum, Binance Coin, Solana, and stablecoins such as USDT and USDC have become popular around the world. Today, cryptocurrency is used for investment, online business, international transfers, digital trading, decentralized finance, and cross-border transactions.

The rise in cryptocurrency has been especially notable in countries with economic instability, inflation, banking restrictions, sanctions or political uncertainty. In such environments, many people seek alternative financial systems that can help them protect savings, send money internationally, or access global markets.

“Afghanistan is a special example of this. For decades, Afghanistan has suffered from war, political instability, underdeveloped infrastructure, unemployment, poverty and dependence on foreign aid. In the past, the Afghan banking sector is not as strong as banking systems around the world. Following the political developments of August 2021, the country experienced an even deeper economic and financial disaster. Foreign reserves were frozen, international banking relations were restricted and many Afghans had severe problems with access to cash and bank accounts.

Those economic difficulties led some Afghans to look for other financial mechanisms. Freelancers, tech users, businessmen and families seeking remittances from abroad were increasingly talking about cryptocurrency and digital financial systems. Digital currencies had some advantages, especially for online activities and cross-border transfer. When traditional financial channels became



difficult, some Afghan citizens turned to cryptocurrency to receive payments from foreign employers or relatives abroad.

Cryptocurrency has also raised many concerns at the same time. The country has serious problems including poor electricity infrastructure, low Internet penetration, low digital literacy, lack of legal regulations, cybersecurity risks, and restrictions on cryptocurrency trading activities. Moreover, digital currencies' instability causes financial risks to ordinary citizens who may not fully understand the dynamics of cryptocurrency markets.

Thus, the debate over cryptocurrency in Afghanistan is of great importance and significance. Digital currencies may, on the one hand, promote financial inclusion and technological modernization and provide access to international finance. On the other hand, absence of regulation and infrastructure may lead to more financial instability and illicit activities.

This article focuses on cryptocurrency challenges and opportunities in Afghanistan. This paper discusses the economic background of Afghanistan, the role of digital finance in times of crisis, opportunities created by cryptocurrency systems, and the major barriers to cryptocurrency adoption in Afghanistan. The article also discusses future prospects of digital finance in Afghanistan and gives recommendations for policy makers, educational institutions and financial authorities.

### 1. Cryptocurrency and Blockchain Technology

The development of technology and digital transformation have led to a significant change in the global financial system. Cryptocurrency is one of the most important innovations in modern finance. Cryptocurrency is a digital asset whose secure transaction environment is based on cryptography and blockchain technology. Some of the most used cryptocurrencies in the world include Bitcoin, Ethereum and stablecoins. Cryptocurrencies are used for investment, international transfers, online payments and financial inclusion in many countries. Cryptocurrency is also attracting increasing attention in Afghanistan, particularly after the Taliban's takeover in August 2021. The Afghan economy was hit hard by the freezing of foreign reserves, sanctions, restrictions on banks, unemployment and a drop in international aid. Many citizens then looked for other ways to move and protect money.

Some Afghans turned to cryptocurrency for remittances, online business activities and savings as traditional banking systems became unusable. Furthermore, the hawala system, long an important part in Afghanistan, started to interact indirectly with cryptocurrency transactions. Nevertheless, the Afghan financial system still doesn't have the facilities and laws in place to allow a lot of people to use cryptocurrencies.

Cryptocurrency means a digital currency that is not under a government bank. Blockchain is a shared ledger used to record transactions.

The blockchain gives us protection, decentralisation and transparency. Features of Cryptocurrency:

- **Decentralized:** It is not controlled by any central bank or government.
- **Fast International Transfers:** You can send money to another country within minutes.
- **Reduces transaction costs:** By elimination of intermediaries and fees.
- **Transparency:** All events are recorded on a public, transparent, immutable blockchain ledger.
- **Reduced Dependence:** Reduced dependence on the existing financial machinery.
- **Digital Storage:** They are stored in secure digital wallets designed for this purpose.

Cryptocurrency is particularly popular where the economy is weak, banks can't be trusted or there are international sanctions. Afghanistan is another case in point. Economic instability in the country has directly boosted demand for digital currencies.

### 2. The state of financial and economic

Afghanistan has experienced economic and political turmoil for the past four decades. The country's finances were badly hit by prolonged wars, weak institutions, corruption, slow industrial



growth, and dependence on external assistance. Afghanistan had many economic problems before the political changes in 2021. These included high unemployment, poverty, poor investment and a lack of banking facilities.

The Afghan economy used to rely on aid and handouts from other countries. Other countries' reports suggest that a large chunk of Afghanistan's gross domestic product used to come from foreign aid. The structural weak points were the need for dependency, national economy could not run on its own without help from other countries.

Afghanistan's banking system was not as developed as in many other countries. The country's banks were not as strong and had already suffered reputational damage from scandals of corruption and design flaws. The failure of Kabul Bank in 2010 made people very sceptical about the financial system, and showed how weak the banks in Afghanistan really were.

Afghanistan's economy worsened after the Taliban took over in August 2021. The United States and other nations froze billions of dollars of Afghanistan's central bank funds. Afghanistan cannot access the global banking system due to restrictions and sanctions imposed by other countries. There were problems with cash in the banks so people couldn't always get money out of their accounts.

For ordinary people the effects on their finances were brutal. Many people lost their jobs. Businesses tried to continue. Many families could not get cash. Sending money across borders was also difficult especially for families whose family members worked abroad and sent money to them.

Things were also getting worse for the needy. Millions of Afghans are hungry and impoverished after the economy collapsed, international agencies say. People were into different ways of getting money when it got this bad.

Some Afghans thought cryptocurrency could be a good alternative to the old way of doing business with money. Digital currencies also sped up cross-border payments and reduced reliance on banks in those countries. And as some global payment platforms disappear, freelancers and home workers are increasingly turning to cryptocurrency.

The hawala system was very important then as well. Hawala is a popular way people transfer money without a bank account in Afghanistan and South Asia. "A lot of people trusted hawala more than banks. Sometimes crypto trades would tangentially touch hawala networks. Sometimes hawala traders turned cryptocurrency into local cash for folks.

These changes did not make cryptocurrencies very common to be accepted in Afghanistan. Most cryptocurrency users lived in cities like Kabul, Herat and Mazar-i-Sharif where it was easier to get online and use computers. This created a barrier to and demand for use of cryptocurrencies in Afghanistan's economy. Digital currencies drew attention when the financial crisis struck but were not widely adopted because the infrastructure was not advanced enough and the legal framework was not well defined.

### **3. The future of cryptocurrency in Afghanistan**

Afghanistan's business and financial sector could be helped by crypto in a number of ways. Digital currencies may not be the death knell for traditional banks, but they could give some people important new ways to handle their money. In a place where many people lack access to traditional banks, digital financial technologies can offer new avenues for people to engage in the economy.

#### **3.1 Sending money home and sending money abroad**

One of the best uses of cryptocurrency in Afghanistan is sending money abroad. There are millions of Afghans living abroad that send money to family and friends back home on a regular basis. Payments to Afghanistan are very important for many families. They help pay for food, school, medical care and other day to day expenses. The old way of sending money is usually slow and expensive. In 2021 it also became more difficult to send money to Afghanistan due to international sanctions and banking restrictions. International banking routes were sometimes cut off.



Cryptocurrency was simply another way for some families to get what they needed. Digital currencies can be transferred across borders in minutes, without banks. "Investors were particularly interested in stablecoins like USDT that are pegged to the U.S. dollar. Take for example an Afghan working in Europe or the Gulf States who could buy cryptocurrency online and send it directly to a relative in Afghanistan. Then the recipient of the digital currency could turn it into cash with the help of informal vendors, or crypto dealers, in their own country. This meant less dependence on traditional banks and often lower transaction costs.

### **3.2 Financial Inclusion and Access to Banking Services**

Afghanistan is one of the hardest places in the world to be able to get to a bank. Many people don't have bank accounts, especially in rural areas. Financial exclusion is when people can't get into a bank, don't trust banks or don't know how to look after their money.

Digital wallets and currencies allow people to store and send money on their phones. This means more people can access money. Payment systems that work over cell phones are very useful in emerging nations that don't have strong bank systems. Such benefits can be achieved by young Afghans who know how to use smartphones and the Internet digitally. Students, freelancers, entrepreneurs, and small business owners can use cryptocurrency to deal with other countries and on the internet.

Digital finance can also be used to support women entrepreneurs who face difficulties finding traditional financial services due to social or institutional barriers. Digital payments could open new doors for some online workers and women marketers to find novel avenues of income in their online businesses.

### **3.3 Support for Online Business and Freelancing**

With the internet economy, freelancers have been able to find work globally in fields such as graphic designing, programming, translation, marketing and online education. With limited work in their home country, Afghan teenagers are increasingly looking to internet freelance markets.

However, access to foreign payments has frequently been hampered by constraints imposed by the global banking institutions on Afghanistan. Cryptocurrency was one way of getting paid for freelancing work. Some Afghan freelancers are paid in Bitcoin, Ethereum or stablecoins by foreign clients. It allows you to participate in the global digital economy, no matter the limits of banks. The expansion of online jobs could spur technological education and digital entrepreneurship among Afghan youngsters.

### **3.4 Guarding Against Bank Failure**

In the times of financial crises citizens look for ways to protect funds from inflation, bank closures or restrictions on withdrawals. "Some Afghans liked the idea of cryptocurrency because you can hold digital assets outside the local banks.

When banks limit withdrawals or national currencies collapse, stablecoins can provide a temporary financial safe haven. Some opined that digital assets are safer than retaining huge sums of actual cash. Additionally, crypto wallets offer the convenience of mobility, enabling users to access monies from around the globe through the internet.

### **3.5 Transformation in Formalization, Innovation and Digitalization**

Blockchain tech isn't just for cryptocurrency. Many countries are testing blockchain technologies for public administration, digital identity verification, land registration, health records and financial transparency. If they create a proper infrastructure and laws, Afghanistan can gain from digital transformation in the future." Blockchain can enhance transparency in financial transactions and assist to curb corruption.

In addition, the Afghan economy is overwhelmingly cash-based and cash-driven. The hawala system is trusted, although it is not always transparent and it is not formally controlled. Digital payment systems and regulated crypto exchanges may slowly pave the way for financial



formalization. More electronic payments may lead to greater transparency, tax collection and financial surveillance.

#### **4. Problems and Challenges of Cryptocurrency in Afghanistan**

There are significant prospects in the crypto currency but Afghanistan has to overcome several key challenges to allow safe and effective use of digital currencies. These are economic, technological, legal and educational and political challenges.

##### **4.1 Legal constraints and absence of regulation**

One of the main hurdles for crypto growth in Afghanistan is the lack of a definite legal framework. Taliban officials reportedly banned or restricted bitcoin trading operations in 2022 and considered many crypto activities illicit. These restrictions have driven many cryptocurrency users to the illicit economy. The lack of regulation causes an uncertainty for investors, enterprises and the common people. No legislation, no protection against fraud, frauds and financial abuse. International investment in Afghanistan's digital financial area is also deterred by regulatory uncertainty. There is minimal possibility that foreign corporations will participate in fintech or crypto infrastructure without legal clarity. And there are massive financial risks because there is a lack of anti-money laundering regulations, consumer protection mechanisms and taxation policies.

##### **4.2 Weak Internet and Power Infrastructure**

Cryptocurrency systems depend upon access to the internet, cellphones and reliable electricity. Afghanistan has major infrastructural problems in all three areas. Internet penetration is quite low, especially in the rural areas where many communities lack dependable connection to the internet. Power outages and disruptions are typical concerns in various sections of the country. Poor infrastructure is a major constraint to cryptocurrency adoption. Blockchain transactions require an active internet connection. Also, the cost of smartphones and digital devices is a big barrier for poor households.

##### **4.3 Barriers to Digital and Financial Literacy**

Most Afghan individuals do not know about bitcoin, blockchain technology and online financial security. There are few education opportunities, and technical development has been slow, and levels of digital literacy are low. Some users may not know how bitcoin wallets work, or how to protect their private keys. This makes them an easy mark for frauds and fraud. The biggest risk in uncontrolled environments are phony investment schemes, Ponzi scams, fraudulent exchanges and internet theft. Therefore, financial education initiatives are needed for the widespread acceptance of cryptocurrencies.

##### **4.4 Volatility of Cryptocurrency Markets**

Prices of cryptocurrencies are highly volatile. Bitcoin and other digital currencies are known for their huge price swings over a short period. In Afghanistan, investing life savings in volatile investments can affect poor households financially badly. Many citizens may not have sufficient awareness about investment and market hazards. This is partly remedied by stablecoins which are pegged to a stable currency such as the US dollar but even these are not without danger in terms of regulation and platform stability.

##### **4.5 Risk of Fraud and Cyber Security**

Security is another important problem for cryptocurrency users. Digital wallets and exchanges are also the targets of hackers and internet criminals. Today, Afghanistan does not have adequate cyber security infrastructure and consumer protection systems. If a user forgets their password, or loses their private key, they could lose access to their digital assets forever. Countries with weak financial regulation make it easier for bad actors to flourish.

##### **4.6 International Political, Sanction and Environmental Issues**

International financial isolation compounds Afghanistan's challenges. Now, with the sanctions and anti-terrorism legislation, foreign authorities are watching Afghanistan's financial



transactions. Some countries are worried that bitcoin could be used to circumvent sanctions or to facilitate unlawful financial transactions, which could bring more international attention to cryptocurrency activity in Afghanistan.

Cryptocurrency mining (especially Bitcoin mining) requires huge quantities of electricity for the environment. Afghanistan has existing power outages and energy infrastructure problems. Large-scale bitcoin mining can create environmental and energy issues. There is no infrastructure for industrial bitcoin mining in Afghanistan at present.

### **5. Digital Finance in Afghanistan: The Road Ahead**

The future of bitcoin and digital banking in Afghanistan is uncertain, but it might be vital. “The current situation is hard but the technology is evolving all over the world and Afghanistan cannot be fully isolated from digital transformation. The financial system in Afghanistan is expected to expand gradually as mobile internet, digital payments and fintech innovation continue to evolve. Younger generations are more accustomed with smartphones, social media and online services, which create prospects for long-term digital financial education and innovation.

#### **5.1 Importance of Regulatory Frameworks**

Afghanistan requires clear regulations for cryptocurrency to ensure its safe growth. “Financial authorities need to come up with policies that permit innovation but also security.” A comprehensive legal framework should comprise:

Consumer protection legislation

- Anti-money laundering (AML) rules
- Licensing regime exchanges
- Transparent tax policies
- Normas de ciberseguridad
- Requirements for financial disclosure

Proper regulation can help build public confidence and attract legitimate investment into digital finance.

#### **5.2 Education and Universities' Role**

Educational institutions have a great role to play in digital transformation in Afghanistan. Universities might provide specialized courses in:

- Technology of Blockchain
- Financial technology (FinTech)
- Internet banking
- Cyber security
- Financial services artificial intelligence
- Global digital payment systems

Training programs can boost digital literacy and get young Afghans ready to join the global digital economy. Research institutions are also expected to do studies on adoption of cryptocurrency, regulation of digital finance, and modernization of the economy.

#### **5.3 Growth of FinTech and international cooperation**

FinTech is the application of technology to improve financial services. A number of emerging economies have made great progress in developing mobile payment systems and digital banking services, and Afghanistan could benefit from such developments in the future. Mobile wallets, digital IDs and online payment platforms could significantly increase financial inclusion for small businesses by lowering transaction costs.

International organizations can assist Afghanistan in modernizing its financial systems through technical support and infrastructure development. Programs related to internet expansion, digital education and cybersecurity may increase Afghanistan's technological capabilities, which is important because Afghanistan's financial system is still connected with global economic conditions.



#### 5.4 Gradual Adoption Instead of Immediate Transformation

Cryptocurrency is unlikely to replace Afghanistan's traditional financial system in the near future. Cash and the hawala system are deeply embedded in Afghan society. But digital finance might be slowly adopted, particularly among the young and urban populations. The most realistic future scenario would be a coexistence of traditional financial systems and new digital technologies.

#### Conclusion

Economic instability, restrictions on the banking system and the necessity for alternative financial systems have made Afghanistan a hotspot for cryptocurrency activity. The digital currencies opened the doors to remittances, internet payments, financial inclusion and protection against banking crises.

However, Afghanistan confronts various hurdles including legal constraints, infrastructure, digital literacy, pricing changes and security challenges. "Cryptocurrency alone cannot solve the country's economic problems, but digital finance has the potential to help modernize the financial system in the future, if it is supported by proper regulation and infrastructure," Afghanistan's financial system is currently in transition. The future of cryptocurrency in Afghanistan will depend on political stability, economic reforms, development of internet and international cooperation for financial purposes. There are still some critical difficulties to be solved, but digital money and blockchain technology are still vital topics to be investigated and developed in the future.

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