

Central Bank Digital Currencies and the Transition to a Digital Economy

The Case of the Algerian Digital Dinar

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Abstract: This study aims to analyze the current state and future prospects of adopting Central Bank Digital Currencies (CBDCs) within the framework of the transition toward a digital economy, with a particular focus on the Algerian Digital Dinar as an initiative under the national digitalization strategy. The study concludes that the issuance of a central bank digital currency represents a fundamental step toward modernizing the monetary system and enhancing financial inclusion. However, the success of the project depends on the readiness of the digital infrastructure and the development of appropriate legal and regulatory frameworks, in addition to improving financial awareness and strengthening coordination between the central bank and the financial and technological sectors to ensure a secure transition toward a digital economy.

Keywords: Central Bank Digital Currencies, Block chain, Algerian Digital Dinar, Digital Economy.

JEL Classification Codes : E42, E58, G21, O33

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1. Introduction

Recent technological advancements have sparked a dynamic digital revolution, leading to a fundamental shift in the world of finance and business. One of the most notable outcomes of these technological innovations is the rise of digital currencies, which have significantly influenced the global economy by shifting financial transactions to electronic methods and new digital payment systems. This transformation has redefined the landscape of money and payment systems, establishing digital currencies based on a peer-to-peer (P2P) model that grants them decentralization and transparency in their operations. As a result, they pose a challenge to the authority of central banks and represent a potential threat to both international and local economic systems.

In response to global shifts towards digital transformation and the challenges brought by digital currencies, especially Bitcoin, governments and central banks worldwide have had to adapt by developing monetary systems that align with modern demands. The issuance of Central Bank Digital Currencies (CBDCs) offers a secure and official alternative. Many countries have responded by launching their own official digital currencies. Notable examples include China's digital yuan, the digital euro, Sand Dollar, and the Aber project.

Algeria, like many other nations, has seen its economy impacted by the digital transformation of business models. This necessitated the adoption of technological solutions to modernize its financial and banking sectors, improving transparency in the context of the global trend toward digitizing financial transactions. As a result, Algeria has launched the "Algerian Digital Dinar" project, a significant step in enhancing national economic growth, improving financial inclusion, and increasing control over the financial market.

From the discussion above, the main research problem can be formulated as follows: **What is the future of adopting the Digital Dinar project for Algeria's economy?**

Sub-questions :

- What are digital currencies, and what challenges and requirements are involved in their issuance?
- What are the pioneering global experiences in issuing digital currencies by central banks?
- What is the current status and future potential of Algeria adopting a digital currency (the Algerian Digital Dinar)?

This study is important for highlighting the future of digital technological innovations, particularly focusing on Central Bank Digital Currencies (CBDCs). It sheds light on the main challenges they face in the context of the global digital economy transition. The study also presents successful global examples of digital currency launches, focusing on Algeria's efforts to align with this trend through the adoption of the Algerian Digital Dinar.

This study aims to achieve several key objectives, including:

- Understanding the nature of digital currencies issued by central banks.
- Explaining the mechanism behind Bitcoin and exploring its future market value.
- Highlighting important global models for issuing Central Bank Digital Currencies.
- Presenting a model for implementing the Algerian Digital Dinar project.

To comprehensively address the research problem, a descriptive-analytical methodology has been used as the most suitable approach to presenting and analyzing the study variables.

The study is divided into the following sections:

- Concepts and theoretical aspects of digital currencies.

- Basics of Central Bank Digital Currencies.
- Global trends (global experiences) in adopting the issuance of Central Bank Digital Currencies.
- The reality of Algeria's move toward adopting the Algerian Digital Dinar.

2. Concepts and Theoretical Aspects of Digital Currencies

2.1. Understanding Digital Currencies

2.1.1. Definition of Digital Currencies : Digital currencies are defined as encrypted monetary systems (electronic money) based on cryptographic principles, traded electronically in a decentralized network. (Al-Rahili, 2020), they represent digitally manifested financial value without physical form, generated virtually through computer software, and operate independently of central banks and credit institutions .

Digital currencies represent a form of digital exchange available in the form of intangible digital symbols, functioning as a medium for value exchange based on blockchain technology to secure data through a decentralized system that provides transparency and counters hacking attempts .

In this way, it can be said that cryptocurrencies represent electronically stored monetary value, relying on programming technology for their creation and trading without the need for intermediaries, as they are encrypted data whose management is not subject to control, oversight, or domination by any official authority. (Sorour, 2022)

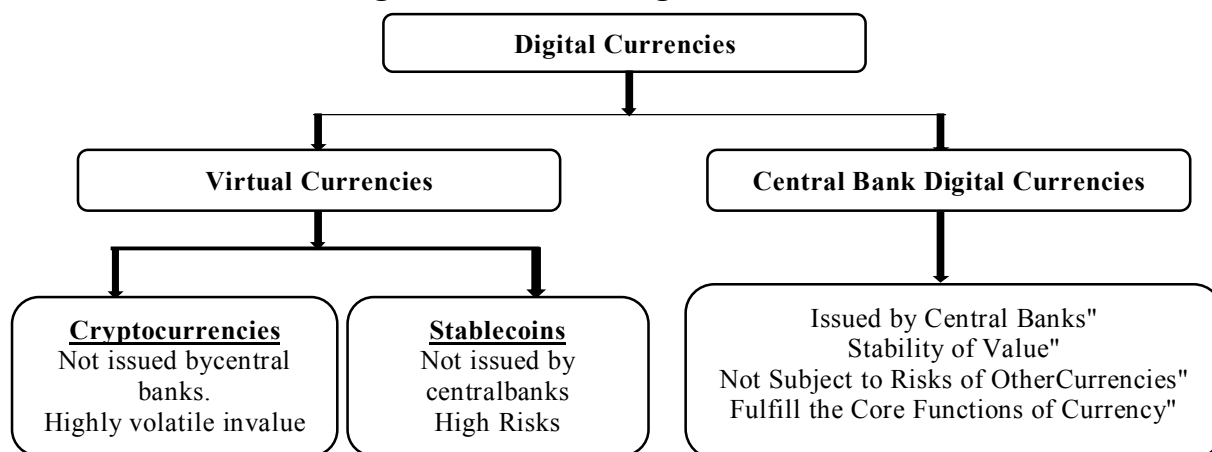
2.1.2 Requirements for Using Digital Currency : Digital currencies must meet specific characteristics to function effectively in financial systems. These requirements include the following (Peng, 2013)

- **Security and Reliability:** Digital payment systems must employ advanced cryptographic techniques (e.g., blockchain technology) to ensure robust protection against tampering, fraud, and unauthorized modifications. This guarantees stability and trust in transactions.
- **Privacy and Anonymity:** Transactions should remain confidential, accessible only to the involved parties. Users' identities and transaction details must be shielded from third-party surveillance or interference.
- **Transferability and Speed:** Digital currencies should operate independently of physical locations, enabling seamless and instant transfers across the globe via the internet.
- **Divisibility:** Digital currencies are programmable and divisible into smaller units, allowing flexibility for micro-transactions and adaptability to various transaction sizes.
- **Universality:** Digital currencies transcend geographical boundaries, functioning as borderless mediums of exchange. They are not tied to any specific region or jurisdiction, enabling widespread adoption and circulation

2.2. Classification of Digital Currencies

There are various forms of digital currencies, and the most notable types are outlined below:

Figure 1: Forms of Digital Currencies



Source: Hiba A., 2022

2.2.1. Central Bank Digital Currencies (CBDCs) : Also referred to as official digital currencies, these are digital versions of fiat money directly issued by central banks, characterized by high security and stability. They enable central banks to reduce transaction costs, enhance payment efficiency, and promote financial inclusion by increasing transparency in monetary flows.

2.2.2. Virtual Currencies: Virtual currencies are defined as digital, anonymous, decentralized currencies that operate on peer-to-peer (P2P) networks. Transactions occur directly between parties without any intermediary, bypassing government oversight and regulations. These currencies function on the principle of electronic transaction anonymity, managed through decentralized systems to avoid traditional banking control.

Virtual currencies are primarily divided into two categories:

- **Stablecoins** : These are digital tokens backed by real-world assets, issued privately without support from monetary authorities, and designed to address price volatility in cryptocurrency markets. Their primary purpose is to provide price stability in the crypto ecosystem. (Merzouk, 2023)
- **Cryptocurrencies:** These are a subcategory of virtual currencies and are used as digital payment systems based on complex and secure encryption protocols. Cryptocurrencies are known for their transparency and privacy, relying on encryption techniques such as block chain for managing transactions and data, ensuring high protection against fraud .

Some of the most well-known cryptocurrencies include:

- **Bitcoin:** Established in 2009, Bitcoin is the most widely used cryptocurrency and is known for its decentralized nature and resistance to counterfeiting.
- **Ethereum:** Launched in 2015, Ethereum is an open-source software platform that operates on block chain technology, allowing developers to build decentralized applications.
- **Litecoin:** Introduced in 2011, Litecoin is a faster alternative to Bitcoin, using different cryptographic algorithms for quicker transactions.
- **Ripple (XRP):** Launched in 2012, Ripple is a global settlement network that provides secure financial transactions and is used for automated currency exchange.
- **Dash:** Created in 2014, Dash is a privacy-focused cryptocurrency that operates on a decentralized network with peer-to-peer transactions.

2.3. Review of the Mechanism of Encrypted Digital Currency (Bitcoin)

Bitcoin represents a new payment system based on cryptographic principles, serving as the foundational and most well-known encrypted digital currency. It operates exclusively online through a decentralized encrypted electronic system (blockchain technology), which secures transactions via open-source software (peer-to-peer network protocol). (Bencherif, 2023).

The mechanism for issuing Bitcoin (mining) is a core challenge for its continued circulation and adoption. It involves a complex virtual issuance process carried out by specialized, advanced computer programs that decode algorithms to generate the currency and transfer it to an electronic wallet. This process relies on an encryption-based coding system that ensures secure, anonymous transactions and prevents manipulation or counterfeiting. (Ben Maâtouk, 2020)

2.4. Disadvantages and Challenges of Using Digital Currencies

Digital currencies have gained significant popularity among investors and occupy a major space in their interests due to the diverse investment opportunities they offer. However, they face a set of risks, which can be summarized as follows:

- **Currency Anonymity and Encryption:** The encrypted and private nature of digital currencies makes it difficult for authorities to trace their origins, thanks to their strong security and anonymous identities. This characteristic exposes them to potential legal violations and misuse in illicit transactions, making them a tool for money laundering and facilitating the trade of prohibited goods.
- **Mining Complexity:** One of the main obstacles to the widespread adoption of digital currencies is the difficulty of mining. Their issuance depends on complex algorithms and software, which require significant computational power and energy.
- **Lack of Legal Protection:** Digital currencies are not regulated or supervised by any financial or monetary authority. Due to their decentralized nature, they are not issued by central banks or official institutions, which exposes investors to high financial risks.
- **Tax Evasion:** Due to the anonymity of transactions, it is difficult for governments to track funds or accurately assess taxes on digital currency trades.
- **Price Volatility:** Digital currencies operate without centralized control or infrastructure, and there is no regulatory oversight on trading volumes or price stability. This leads to continuous fluctuations in value and price instability, driven by market
- **Cybersecurity Risks (Hacking and Fraud) :** Digital currencies are stored in encrypted wallets, making them vulnerable to cyberattacks and data manipulation. Users face the risk of losing access to their funds due to digital threats, with limited legal recourse against hackers. (Aounallah, 2023)

3. Basics of Central Bank Digital Currencies

3.1. Concept of Central Bank Digital Currencies (CBDCs)

Several definitions of Central Bank Digital Currencies (CBDCs) have emerged. They are described as digital money issued under the supervision and management of a central bank, in accordance with regulatory standards and rules. CBDCs serve as official digital currency with high levels of privacy and security. They are digital representations of central bank-issued

currency, functioning as a reliable digital payment medium, valued in the national accounting unit and fully backed by the central bank's responsibility and control.

In addition, CBDCs possess a range of features, as summarized in the following table:

Table 1: Characteristics of Central Bank Digital Currencies

Characteristic	Description
Confidentiality and Privacy	Digital and centralized, secured by the central bank, utilizing a peer-to-peer system for secure transactions, ensuring the elimination of illegal financing.
Flexibility and Scalability	High operational speed and flexibility in making technical updates and changes to the system.
Financial Inclusion	Enabling access to marginalized groups, making it available to all users, thus promoting financial inclusion.
Security and Centralization	High protection against cyber-attacks, as it is based on encrypted coding systems.
Centralized Reserves	Regulated by the central bank and supported by reserves and deposits.
Electronic Ledger	Represents the digital form (electronic record) of paper currency.

Source: Prepared by the researcher based on (Lahani&Manasra, 2020, pp. 344-345), (Marzouq, 2023, p.6).

3.2. Motivations for Issuing Central Bank Digital Currencies (CBDCs)

Central banks are increasingly adopting Central Bank Digital Currencies (CBDCs) for a range of key motivations, including:

- **Enhancing Financial Inclusion :** CBDCs improve access to financial services by expanding the scope of inclusion. Digitizing value chains enables a digital revolution in payment efficiency and effectiveness. They empower financially excluded populations to access digital financial services via electronic wallets issued by financial technology companies, bypassing high fees charged by traditional banks and mobile money service providers.
- **Ensuring Financial Stability :** CBDCs serve as an organized, stable, and sustainable alternative to private cryptocurrencies, reducing fraud risks and strengthening central bank oversight. They mitigate exposure to risks associated with private digital assets, particularly in maintaining financial integrity and economic stability.
- **Improving Payment System Efficiency :** Central bank digital currencies offer high transparency, enhancing payment system performance through block chain technology. They enable faster and more effective transaction settlements, especially for instant payments.
- **Monetary Policy Support:** CBDCs strengthen the efficiency of monetary policy transmission; particularly in advanced economies where central banks can implement negative interest rate policies. They allow central banks to stimulate demand by managing cash-holding costs. (Hiba, 2020)

3.3. Challenges Facing Central Bank Digital Currencies (CBDCs)

Despite the growing global interest in issuing CBDCs due to their positive impact on economies, several challenges hinder their adoption:

- **Technological Innovation and Adaptability:** Central banks must continuously innovate to keep pace with technological advancements and meet evolving user demands through diversified products. They need to function like software companies to maintain leadership in official digital currency development.
- **Flexibility:** As a strategic national infrastructure, CBDCs significantly influence the financial system and economy due to their legal nature. Technical solutions must therefore exhibit high flexibility and global scalability.
- **Cybersecurity: Protecting** CBDCs from cyberattacks is critical, as payment systems are vital infrastructures requiring robust security and privacy measures against unauthorized access or data tampering.
- **Regulatory Frameworks: Successful** CBDC issuance requires a robust legal environment and regulatory safeguards to protect data privacy and prevent misuse threatening financial stability.
- **Structural Changes in Financial Markets:** CBDCs redefine central bank and private sector responsibilities, potentially becoming near-complete substitutes for commercial bank money—especially interest-bearing ones—leading to fundamental shifts in financial system architecture. (Al-Rahili, 2020)

3.4. Prospects for CBDC Development and Global Adoption

According to a 2020 study by the Bank for International Settlements (BIS) involving 65 central banks representing 72% of the world's population (21% advanced economies, 44% emerging/niche economies) and 91% of global GDP, there is a growing global trend toward CBDC issuance. The survey revealed that 86% of central banks are exploring CBDC opportunities, with 60% advancing to experimentation (up from 42% in 2019) and 14% progressing to project development and testing (Boar & Wehrli, 2021).

4. Global Trends in the Adoption of Central Bank Digital Currencies (CBDCs)

4.1. The Chinese Digital Yuan

China is considered the first major economy to pioneer the issuance of a Central Bank Digital Currency (CBDC) as a result of its shift toward digital financial innovation. The initiative began in 2014 when the People's Bank of China (PBoC) made the necessary arrangements to issue the digital yuan. The Digital Yuan, officially known as the e-CNY, is defined as the digital version of the legal tender (Renminbi), backed by sovereign credit, issued by the central bank, and operated by licensed intermediaries. It functions as a value-based hybrid instrument. The e-CNY employs an encryption system that strengthens China's digital economy and contributes to making the global electronic payment system more efficient and reliable. (Hiba, 2020)

4.2. The Sand Dollar (The Bahamas' Central Bank Digital Currency)

The Sand Dollar is defined as the digital version of the Bahamian dollar, issued by the Central Bank of The Bahamas. This currency provides a high degree of flexibility aimed at enhancing financial inclusion for unbanked and underbanked populations, while also reducing the cost of providing financial services and improving the efficiency and transparency of the financial system. The success and growing attention surrounding this project are largely attributed to the need for a resilient and flexible digital financial system capable of addressing

the challenges that emerged during the COVID-19 pandemic and in the aftermath of Hurricane Dorian, which had destroyed one of the Central Bank's branches in the Bahamas. (Merzouk, 2023)

4.3. Project “Aber” (A Joint Digital Currency between Saudi Arabia and the United Arab Emirates)

Many central banks around the world are moving rapidly toward issuing Central Bank Digital Currencies (CBDCs). Among them are Arab supervisory authorities, which have generally prohibited dealing in crypto-assets while exploring the feasibility of launching central bank-issued digital currencies. In this context, the joint initiative between the Saudi Arabian Monetary Authority (SAMA) and the Central Bank of the United Arab Emirates (CBUAE) — known as Project “Aber” — stands out as one of the most prominent experiments in cross-border payment and settlement systems.

This project explores the potential use of block chain technology, based on a distributed database, to issue a single, jointly-operated digital currency between the two countries for use among participating banks both domestically and internationally. The project aims to: (Hiba, 2020)

- Study the mechanisms of issuing, exchanging, and circulating central bank digital currencies.
- Analyze the processes of reconciliation and settlement among banks through the possible application of blockchain technology.
- Understand the technical and operational methods, applications, and outcomes that could impact existing financial infrastructures.
- Identify the potential effects and implications of issuing a CBDC on monetary policy instruments.

5. The Reality of Algeria's Move Toward Adopting the Algerian Digital Dinar

5.1. Model for Implementing the Algerian Digital Dinar Project

The adoption of Central Bank Digital Currencies (CBDCs) represents a fundamental pillar in advancing digital finance and transforming the global financial system through the digitization of financial operations. As a result of these transformations in the digital business environment, Algeria has shown growing progress toward embracing technological solutions that strengthen the components of the digital economy, by creating and consolidating a balanced digital ecosystem. In line with this trend, and to keep pace with the digitalization of payments and transactions, Algeria announced in June 2023 its intention to implement a national strategy under the title “The Algerian Digital Dinar Project.” This initiative constitutes a qualitative step in adapting to digital transformation, with the aim of fostering national economic growth and facilitating integration into the global economy.

The introduction of a digital form of national currency, issued, developed, managed, and monitored by the Central Bank of Algeria, represents both a challenge and an opportunity for the country, as it serves as a driving force for digital transformation and promotes greater financial inclusion. The Digital Dinar reinforces the physical form of money while serving as an alternative to credit-based cash, adding value to the national economy—particularly in the field of electronic payments—by ensuring transaction transparency and data privacy, and by reducing the size of the informal economy (Digital Dinar... A Government Project to Keep Pace with Global Transformation, 2023.) (Aït Akli, 2023)

Within the broader framework of Algeria's digital transformation and the government's efforts to modernize the banking system, the adoption of the Digital Dinar is expected to strengthen financial security, enhance the monitoring of payment systems, and align with the technological and economic dynamism of electronic financial transactions. The Algerian Digital Dinar is therefore envisioned as a source of economic strength, a driver of openness to the digital economy, and a catalyst for attracting foreign investment while facilitating financial exchanges between the national digital currency and other blockchain-based digital currencies. According to projections, if officially adopted, this initiative could enable the Bank of Algeria to generate more than USD 100 billion in profits within just three years (Eddine, 2022). Accordingly, a model has been proposed to illustrate the process of issuing the Algerian Digital Dinar, structured across three fundamental levels, as outlined in the following table:

Table 2: Model for the Issuance of the Algerian Digital Dinar

Proposed Framework for the Algerian Digital Dinar Project		
Level	Responsible Authority	Operational Scheme (System Framework)
Level 1	Bank of Algeria	The Bank of Algeria is the sole authority authorized to issue the Algerian Digital Dinar. It opens digital dinar accounts for commercial banks and <i>Algérie Poste</i> , and records all related transactions using blockchain technology managed and controlled by the central bank itself.
Level 2	Financial Institutions (Intermediaries)	This level covers the operational system of financial institutions holding digital dinar accounts with the Bank of Algeria. Three commercial banks—Banque Nationale d'Algérie (BNA), Banque Extérieure d'Algérie (BEA), and Crédit Populaire d'Algérie (CPA)—along with <i>Algérie Poste</i> , have been selected to manage users' digital wallets and technical devices. This includes verifying customers' financial identities and ensuring data security and protection through the development of a Know Your Customer (KYC) system.
Level 3	Public (End Users)	At this level, individuals install digital wallets on their smartphones. The physical dinar deposited in financial institutions is converted into digital dinars, enabling direct use in electronic payments—either remotely or in person—through available technological solutions such as QR code scanning and other digital payment tools.

Source: Compiled by the researcher based on *Othmania & Ben Guirat (2022, pp. 66–67); Kessouri & Abbah (2024, p. 161); Charara & Beqbeq (2023, p. 1111).*

2.5. The Positive Contributions of Adopting a Digital Currency to the Algerian Economy

The Algerian Digital Dinar plays a crucial role in supporting the transition toward a digital economy and in modernizing the Algerian financial sector through a series of positive contributions, including the following:

- **Providing an alternative to mitigate the risks of virtual currencies:** The Algerian Digital Dinar represents a stable digital alternative under the supervision and regulation of the Central Bank, making it an effective tool to counter the risks posed by the spread of virtual currencies such as Bitcoin. It promotes the secure development of electronic payment behavior through encryption technologies, thereby strengthening the resilience of the local financial system.
- **Reducing transfer costs:** transactions are more cost-effective and competitive than traditional payment methods, as they rely on peer-to-peer (P2P) mechanisms without

financial intermediaries. This represents a major incentive for adopting central bank digital currencies (CBDCs).

- **Flexibility and speed in information processing:** The block chain-based digital dinar ensures faster transaction settlement compared to traditional electronic payments. Digital identities and encryption algorithms provide sufficient guarantees for transparency and flexible management of customer information.
- **Promoting financial inclusion:** Technological innovations such as CBDCs make it possible to benefit from innovative payment solutions by ensuring greater transparency and financial security, which in turn reduces service costs, increases efficiency, and expands access to a wider range of digital financial services.
- **Enhancing competition and open markets:** The use of modern digital technologies fosters the provision of financial services based on new patterns of innovation, acting as a driver of market competitiveness through innovation promotion, efficiency improvement, and reduction of operational and compliance costs.
- **Emergence of new business models and economic growth:** The central digital dinar contributes to the emergence of new economic activities and mechanisms (e.g., digital financial service platforms, crowdfunding, and digital wallets), thereby stimulating investment, information services, and overall economic activity.
- **Ensuring financial stability:** The programmable nature of the Algerian Digital Dinar provides the Central Bank with an effective mechanism for performing its supervisory and regulatory functions. It enables the use of flexible and efficient monetary policy tools to control money supply, interest rates, and inflation levels, thereby reinforcing financial stability.
- **Opening the Algerian economy:** The move toward adopting a digital currency is a vital step in Algeria's transition to a digital economy. By integrating financial technology (FinTech) and aligning with the global digital transformation, this initiative strengthens confidence in the Algerian banking and financial system, supports reform, attracts foreign investment, enhances the flexibility of financial transfers, and opens the national economy to global markets.

3.5. Challenges of Adopting the Algerian Digital Dinar Project

The Algerian Digital Dinar Project marks the beginning of a new phase in strengthening the digital economy through the adoption of innovative strategies aimed at modernizing and developing the Algerian financial and banking sector in line with contemporary transformations. Despite the promising opportunities and potential benefits of the digital dinar, its successful implementation and long-term sustainability face several challenges. These challenges require the establishment of appropriate legislative and regulatory frameworks, the development of robust technological infrastructure aligned with global digital advancements, as well as public education and awareness programs to highlight the benefits of transitioning to digital currency. Moreover, the continuous improvement of electronic payment systems is crucial to ensuring the success of Algeria's central bank digital currency (CBDC) model.

The following table outlines the main challenges facing the implementation of the Algerian Digital Dinar Project:

Table 3: Challenges Facing the Algerian Digital Dinar Project

Type of Challenge (Threat)	Associated Risks
Digital Infrastructure	The issuance of the Algerian Digital Dinar faces significant limitations related to the efficiency and reliability of the existing technological infrastructure, which represents a fundamental requirement for the digital transformation of payment systems. Ensuring the effectiveness and security of digital transactions depends on advanced applications and software. Therefore, Algeria is working to develop a business environment that promotes innovation, competitiveness, and the modernization of its central financial system, in harmony with the new digital ecosystem.
Security and Privacy	The absence of adequate guarantees for users' financial data privacy and the risk of misuse of personal information highlight the need to strengthen cybersecurity measures. Protecting digital infrastructure from breaches, hacking, and financial fraud is essential to safeguard the national financial system and to maintain its resilience against the growing influence of cryptocurrencies.
Legal and Regulatory Frameworks	The lack of a comprehensive legal and regulatory system governing the use and exchange of digital currency poses a significant challenge. It is therefore necessary to establish comprehensive, flexible, and technology-oriented legislation by: (i) updating existing laws to align with digital transformation requirements, (ii) adopting specific regulations regarding taxes and fees on digital dinar transactions, (iii) ensuring legal protection for digital financial operations under Law No. 18-05 on electronic commerce, and (iv) restricting the misuse of digital currencies for money laundering or terrorist financing, in accordance with Law No. 01-05.
Integration with the Electronic Payment System	Algeria seeks to improve the efficiency of its electronic payment systems by digitizing financial services and transactions, and by developing innovative digital payment solutions and an integrated e-commerce framework. These efforts aim to reduce the volume of cash circulating outside the banking system and to promote digital finance transactions in a secure, encrypted, user-friendly, and reliable digital environment.

6. Conclusion

With the continuous advancement of modern technologies, central bank digital currencies (CBDCs) have become an urgent necessity to advance digital transformation and adopt digital technologies in the business environment. As one of the most pressing contemporary challenges faced by nations, the need for a centrally controlled digital alternative—managed and regulated by the central bank—has emerged to make payment systems more secure and reliable. Consequently, many countries around the world have initiated research and pilot projects aimed at developing such digital currency models, based on a set of key drivers and prerequisites that align with the rapidly evolving technological landscape.

Algeria is among the countries that have recognized the opportunities and advantages offered by digital transformation through the development of an official national digital currency, represented by the Algerian Digital Dinar Project. This initiative is expected to play a vital role in enabling a smooth transition within the national payment system and in fostering economic development. It represents a strategic phase toward revitalizing economic activity and aligning the Algerian financial and banking systems with global digital standards.

Through this study, the following conclusions were reached:

- Digital currencies represent modern innovations that significantly influence the global monetary and financial system, as they rely on cryptographic technology to ensure the efficiency and security of digital transactions.
- Central bank digital money contributes to global economic growth by expanding the role of central banks in economic activities, providing a highly secure instrument that ensures privacy and efficiency within the digital economy.
- Many central banks worldwide have begun exploring or issuing digitally backed assets under their supervision to mitigate the risks posed by unofficial cryptocurrencies to the stability of financial systems.
- The Bank of Algeria aims to establish a new digital payment system—an ambitious and positive step toward joining the ranks of leading countries in digital financial innovation and modernization.
- Despite the potential benefits of adopting the Algerian Digital Dinar, such as improved financial inclusion and modernization of transactions, the project still faces several challenges, notably cybersecurity threats, technical and regulatory complexity, and the lack of financial literacy.

Based on the findings of this study, the following recommendations are proposed:

- Examine the regulatory standards governing central bank digital currencies as alternatives to unofficially issued digital assets, while assessing their potential economic and financial impacts on technological entrepreneurship and real-world implementation.
- Promote research and development (R&D) in the digital economy and create a conducive environment for the modernization and digitization of the entire financial sector, through capacity-building initiatives and the dissemination of financial literacy and digital awareness regarding the benefits of electronic payments.
- Strengthen investment in block chain technologies, cybersecurity, and supporting infrastructure to ensure the safe issuance of CBDCs and to mitigate fraud risks through enhanced payment monitoring and transaction security.
- Foster international cooperation and seek technical and financial assistance to develop unified legislative frameworks that ensure privacy protection mechanisms in the design of official digital currencies, particularly to facilitate cross-border transactions.
- Leverage successful international regulatory experiences, particularly the Chinese model, which could be adapted to the Algerian context through bilateral cooperation agreements and strategic partnerships.
- Develop a flexible and well-structured strategy led by policymakers to stimulate innovation and guarantee effective financial inclusion by accurately identifying the benefits and priorities of the Algerian Digital Dinar project.

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