

Review Article

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DIGITAL CURRENCIES AS THE FUTURE OF FINANCIAL TRANSACTIONS

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Abstract: *This research analyzes innovative approaches to conducting financial transactions in the global market and in the Republic of Serbia. The primary objective is to evaluate the opportunities associated with digital currencies and to identify their main advantages and limitations, with particular emphasis on the barriers to their broader adoption in the Republic of Serbia. The research methodology is based on content analysis and a comparative review of relevant international and domestic literature, as well as data obtained from official institutional sources. The findings aim to contribute to a better understanding of the potential role of digital currencies in the future development of payment systems and financial transactions platforms. This research provides insights relevant for policymakers, financial institutions, and researchers.*

Key words: *Digital currencies, cryptocurrencies, CBDCs.*

JEL classification: *E42, O33*

DIGITALNE VALUTE KAO BUDUĆNOST FINANSIJSKIH TRANSAKCIJA

Sažetak: *Ovo istraživanje analizira inovativne pristupe za realizaciju finansijskih transakcija na globalnom tržištu i u Republici Srbiji. Primarni cilj istraživanja je procena mogućnosti koje nude digitalne valute, kao i identifikacija njihovih glavnih prednosti i ograničenja, sa posebnim naglaskom na prepreke za njihovu širu primenu u Republici Srbiji. Metodologija istraživanja zasniva se na analizi sadržaja i komparativnom pregledu relevantne međunarodne i domaće literature, kao i podataka dobijenih iz zvaničnih institucionalnih izvora. Rezultati istraživanja imaju za cilj da doprinesu boljem razumevanju potencijalne uloge digitalnih valuta u budućem razvoju*

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platnih sistema i platformi za finansijske transakcije. Ovo istraživanje takođe pruža korisne uvide za kreatore ekonomskih politika, finansijske institucije i istraživače.

Ključne reči: digitalne valute, kriptovalute, CBDCS.

1. INTRODUCTION

The rapid advancement of digital technologies, widespread internet accessibility, and the development of distributed computing infrastructures have significantly transformed contemporary financial systems (Arner, Barberis, & Buckley, 2016). In particular, the emergence of distributed ledger technology (DLT) and the rapid expansion of the financial technology (FinTech) sector have created favorable conditions for the development of decentralized digital currencies (Buckley, Arner, & Zetsche, 2023). Among these, the most prominent are cryptocurrencies such as Bitcoin and numerous alternative digital assets, commonly referred to as altcoins (Nakamoto, 2008). Platforms such as Ethereum have further expanded the functional scope of cryptocurrencies by enabling decentralized applications and smart contracts (Buterin, 2014), while stable digital assets such as Tether have introduced mechanisms aimed at reducing price volatility and enabling broader use in financial transactions (Bullmann, Klemm, & Pinna, 2019). The rapid expansion of cryptocurrencies has also stimulated discussions regarding the modernization of official monetary systems and the potential introduction of state-backed digital currencies (Auer, Cornelli, & Frost, 2022). Consequently, many central banks have initiated research and pilot projects related to central bank digital currencies (CBDCs), reflecting the growing interest in digital forms of sovereign money and their potential role in improving payment system efficiency and financial inclusion (Bank for International Settlements, 2023). Among the most advanced initiatives is the Digital Yuan (e-CNY), developed and tested by the People's Bank of China (2021). This project represents one of the first large-scale implementations of a CBDC at the national level and has become a reference point for other central banks exploring similar initiatives (Goodell, & Al-Nakib, 2021).

In this context, digital currencies, both decentralized cryptocurrencies and centralized CBDCs, have emerged as an important area of academic and policy research. Their increasing adoption raises numerous economic, technological, and regulatory questions concerning financial stability, payment efficiency, transparency, and consumer protection. While digital currencies offer significant advantages, including faster cross-border payments, lower transaction costs, and increased financial innovation, they also present substantial challenges related to price volatility, cybersecurity risks, regulatory

uncertainty, and potential implications for the traditional banking sector (Almeida, & Goncalves, 2022; Joebges, Herr, & Kellermann, 2025).

This research examines innovative approaches to conducting financial transactions in both the global financial environment and the Republic of Serbia. The primary objective of the research is to evaluate the potential opportunities associated with digital currencies and to analyze their advantages and limitations, with particular emphasis on the factors that may influence their broader adoption in the Serbian financial system. Author identifies regulatory, technological, and institutional barriers that affect further development and integration of digital currencies within the domestic financial market. Methodologically, the research is based on qualitative content analysis and a comparative review of relevant international and domestic academic literature addressing digital currencies, including both cryptocurrencies and CBDCs. In addition, the analysis relies on secondary data obtained from official institutional sources and publicly available reports. These include materials published by organizations and institutions such as the European Central Bank, the International Monetary Fund, the World Bank, the People's Bank of China, and the National Bank of Serbia. Overall, the findings of this research aim to contribute to a deeper understanding of the evolving digital currency ecosystem and its potential implications for future financial transactions, both globally and within the Republic of Serbia.

2. DIGITAL AND CRYPTOCURRENCIES

Digital currencies constitute forms of money that exist solely in electronic format. Unlike traditional physical cash, they are stored and transferred through computer networks without reliance on tangible media (Bank for International Settlements, 2015; European Central Bank, 2019). A defining feature of many digital currencies is decentralization, where numerous forms, particularly cryptocurrencies, operate independently of central bank or governmental control, thereby enhancing transparency and resistance to censorship (Nakamoto, 2008; Catalini, & Gans, 2016). Furthermore, digital currencies facilitate rapid and cost-efficient cross-border transactions, creating new opportunities for international trade and advancing financial inclusion (Auer, & Bohme, 2020). They are accessible to any individual with an internet connection, regardless of geographic location. Nevertheless, within most legal frameworks, digital currencies are classified as digital assets rather than recognized legal tender, which limits their formal acceptance (European Central Bank, 2019). The concept of digital currencies encompasses cryptocurrencies, central bank digital currencies (CBDCs), and electronic money (e-money) (Pele, Mazurencu-Marinescu-Pele, & Dufour, 2021). Electronic money (e-money)

refers to digitally stored monetary value representing a claim on the issuer, typically a financial institution, and is commonly used for electronic payment transactions (European Central Bank, 2019; Gomber, Koch, & Siering, 2017).

Digital currencies are predominantly built upon blockchain technology, which functions as a distributed and immutable ledger recording all transactions (Nakamoto, 2008; Casino, Dasaklis, & Patsakis, 2019). Each “block” contains encrypted transaction data, and once completed, it is cryptographically linked to the preceding block, forming a continuous chain. This blockchain architecture enhances both security and transparency, as identical copies of the ledger are maintained across numerous computers (nodes) worldwide (Catalini, & Gans, 2016). Transaction validity is ensured through consensus mechanisms such as Proof of Work or Proof of Stake (Narayanan et al., 2016). Beyond underpinning cryptocurrencies, this technology holds substantial potential to drive transformations across multiple industries (Casino, Dasaklis, & Patsakis, 2019).

Digital currencies are reshaping the global economy in several significant ways (Azar et al., 2022; Auer & Bohme, 2020; Catalini, & Gans, 2016; Casino, Dasaklis, & Patsakis, 2019):

- **Transformation of payment systems:** Digital currencies enable faster and more cost-efficient cross-border payments by reducing reliance on intermediaries and lowering transaction costs.
- **Advancement of financial inclusion:** They expand access to financial services for unbanked and underbanked populations, particularly in developing economies, by providing tools for saving, investing, borrowing, and conducting transactions.
- **Expansion of decentralized finance:** A novel financial ecosystem has emerged outside traditional banking institutions, offering services such as lending, insurance, and asset exchange through smart contracts deployed on blockchain networks.
- **Promotion of innovation:** The open architecture of blockchain technology and digital currencies encourages the creation of new business models and technological solutions, fostering the development of emerging industries and employment opportunities worldwide. These developments extend beyond technical innovation, they are fundamentally redefining the functioning of money, determining who can access financial systems, and influencing the trajectory of global economic evolution.

Cryptocurrencies represent digital units of value that rely on cryptographic techniques to secure transactions, regulate the issuance of new units, and verify the transfer of assets within a decentralized network (Nakamoto, 2008; European Central Bank, 2019). Operating without a central authority,

cryptocurrencies depend on distributed ledger technology, most commonly blockchain, which ensures transparency, data immutability, and direct peer-to-peer exchange without intermediaries. In the digital environment, cryptocurrencies may function as a medium of exchange, an investment asset, or a store of value (European Central Bank, 2019).

Bitcoin is widely regarded as the pioneer of cryptocurrencies (Nakamoto, 2008). Introduced in 2009, it was the first decentralized digital currency designed to function independently of banks and governments, thereby laying the foundation for the broader decentralized finance (DeFi) ecosystem. Altcoins cover all cryptocurrencies other than Bitcoin. Today, there are thousands of such digital assets, each characterized by specific features, including enhanced transaction speed, increased privacy, or specialized industrial applications. Among them, Ethereum is the most prominent, as it serves not only as a cryptocurrency but also as a platform enabling the development of decentralized applications (dApps) and smart contracts (Buterin, 2014). Its expanded functionality has stimulated substantial innovation within the decentralized financial sector. Stablecoins represent a category of cryptocurrencies whose value is pegged to relatively stable underlying assets, such as the US dollar or gold (Bullmann, Klemm, & Pinna, 2019). By combining the advantages of cryptocurrencies, namely rapid transactions and global accessibility, with the price stability of traditional assets, stablecoins mitigate the volatility commonly associated with crypto markets. They have become a central component of decentralized finance, allowing traders and investors to hedge against sudden market fluctuations. The most widely used stablecoin by trading volume is Tether (USDT), which is designed to maintain parity with the US dollar and can be converted in dollar accordingly. Stablecoins are commonly utilized for cryptocurrency trading, low-cost international transfers, value preservation during periods of volatility, and lending activities (Pele, Mazurencu-Marinescu-Pele, & Dufour, 2021).

Central Bank Digital Currencies (CBDCs) are digital representations of national currencies issued and regulated by central banks (Auer, Cornelli, & Frost, 2022). In contrast to cryptocurrencies, CBDCs operate within a centralized framework under state authority, offering a higher degree of institutional stability and legal certainty. Their primary objectives include modernizing payment infrastructures, enhancing financial inclusion, and improving the effectiveness of monetary policy implementation (Bank for International Settlements, 2023). Authorities in the European Union and the United States are currently evaluating the introduction of digital versions of their respective currencies and assessing the potential implications for financial stability. The European Central Bank is expected to initiate a pilot phase for the digital euro in

2027, with consideration of potential implementation around 2029, linked with the adoption of an appropriate regulatory framework and the establishment and testing of the necessary payment infrastructure (European Central Bank, 2024). In parallel, China has already launched pilot programs for the Digital yuan (e-CNY), integrating it into domestic payment applications, with further expansion into international trade and cross-border transactions anticipated (Fullerton, & Morgan, 2022).

According to Hardle, Harvey, and Reule (2020) and Narayanan et al., (2016), the principal advantages associated with the adoption of cryptocurrencies include:

- Global accessibility, with condition that users have a secure internet connection;
- Faster and more cost-efficient transactions, particularly in cross-border contexts;
- Enhanced transaction privacy, depending on the design of the underlying protocol;
- Greater transparency, owing to the public availability of transaction records on distributed ledgers;
- Promotion of financial inclusion and resistance to censorship, enabling participation outside conventional banking systems;
- Substantial capacity for further technological innovation;
- Decentralized governance structures, independent of governments and central monetary authorities, that simultaneously represent both a strength and a weakness, as the absence of centralized oversight may facilitate illegal activities, including money laundering.

It is also relevant to state several significant challenges related to cryptocurrency implementation (Hardle, Harvey, & Reule, 2020; European Central Bank, 2019):

- High price volatility, which limits their reliability as stable stores of value;
- Restricted acceptance as a means of payment in mainstream commerce;
- Limited understanding among potential users, which may hinder broader adoption;
- Regulatory uncertainty, including unresolved questions regarding future taxation and legal classification;
- Security vulnerabilities, including exposure to cyberattacks and hacking incidents.

Regulatory authorities worldwide are actively working to establish comprehensive legal frameworks governing digital currencies. These efforts encompass issues such as asset classification, consumer protection, anti-money

laundering (AML) compliance, and taxation (Financial Action Task Force, 2021). However, harmonization with existing legal systems remains complex due to the inherently global character of digital currencies and their rapid technological evolution (Arner, Barberis, & Buckley, 2016). Although digital currencies offer considerable benefits, their associated risks must be carefully managed to ensure long-term financial stability and security (European Central Bank, 2019). Achieving this objective requires coordinated collaboration between regulators and innovators in order to design a balanced and sustainable systemic framework. At the same time, traditional financial institutions, including banks and investment funds, are increasingly exploring and integrating digital currencies and blockchain technology into their operations. This integration has led to the development of new financial products and services (Gomber, Koch, & Siering, 2017). Cooperation between the conventional financial sector and the emerging digital finance ecosystem will be essential for building a stable, resilient, and innovative global financial system.

3. DIGITAL CURRENCIES WORLDWIDE AND NATIONALY

The global acceptance of cryptocurrency payments remains relatively limited and largely depends on whether individual companies choose to enable such forms of online payment. The use of cryptocurrencies in physical retail environments is considerably less common (European Central Bank, 2019; Narayanan et al., 2016). Countries such as United States, Switzerland, Japan, Singapore, and United Arab Emirates are frequently characterized as “crypto-friendly”, where cryptocurrency payments are accepted in e-commerce and can subsequently be converted into convertible fiat currencies (Arner, Barberis, & Buckley, 2016; International Monetary Fund, 2024). Switzerland has progressed particularly far in integrating cryptocurrencies into its banking framework, with certain financial institutions enabling crypto-denominated transactions (Swiss National Bank, 2022). In contrast, China, despite its advanced technological infrastructure, has imposed a ban on cryptocurrencies. This regulatory stance is driven by concerns regarding their decentralized nature, which limits central bank oversight, as well as potential risks to financial stability, capital outflows, and their possible use for illegal activities (Brauneis et al., 2021; Financial Stability Board, 2023).

Regulatory approaches to cryptocurrencies vary substantially across countries, reflecting differences in financial regulation, monetary policy priorities, and institutional attitudes toward digital assets. According to comparative analyses published by international organizations such as the International Monetary Fund (2025; 2024), the World Bank (2025), Financial Action Task Force (2021), Financial Stability Board (2023) and the Chainalysis Global Crypto

Adoption Index (2025), national frameworks can be broadly categorized according to the degree of legal recognition and regulatory restrictions applied to cryptocurrencies:

- **Legal tender status.**

In this category, a cryptocurrency is formally recognized as an official means of payment within the national monetary system and may legally be used to settle financial obligations. An example is the Central African Republic, which introduced Bitcoin as legal tender in 2022, although the practical application of this policy has remained limited.

- **Legal but not recognized as legal tender.**

In many jurisdictions cryptocurrencies are permitted as digital assets that can be bought, sold, traded, or held by individuals and institutions, while not being recognized as official currency. These countries typically regulate cryptocurrency exchanges, custody services, compliance procedures, and taxation of crypto-related activities. Examples include Germany, Japan, Singapore, the United States, and Brazil.

- **Legally recognized with restrictions on payment use.**

Some countries acknowledge cryptocurrencies as a form of digital property or financial asset but restrict their use as a general means of payment within the domestic economy. In such cases, the regulatory framework focuses on asset ownership and trading rather than everyday transactional use. Ukraine and Armenia represent examples of jurisdictions where crypto assets are legal but subject to regulatory limitations regarding payment functions.

- **Partially restricted regulatory regimes.**

In these systems, ownership and trading of cryptocurrencies are generally permitted, but certain activities, such as integration with the banking sector, retail payments, or specific crypto services, may be limited or subject to enhanced regulatory oversight. Thailand and South Africa illustrate regulatory environments where authorities allow crypto markets to operate while imposing safeguards and supervisory measures.

- **Prohibited or banned.**

A small number of jurisdictions prohibit cryptocurrencies entirely or ban key activities such as trading, exchange operations, or mining. China has implemented comprehensive restrictions on cryptocurrency trading and mining, while Algeria maintains legislation that effectively bans most cryptocurrency-related activities.

Table 1 presents a list of countries ranked according to their estimated annual cryptocurrency trading volume in 2025, together with the corresponding legal status of cryptocurrencies in each jurisdiction. The United States records the largest trading volume, estimated at approximately 1,200 billion USD, followed by India with an estimated 900 billion USD. The leading position of the United

States can be attributed to a relatively developed regulatory framework, the approval of cryptocurrency exchange-traded funds (ETFs), and the growing role of institutional custody services. A high level of retail-driven cryptocurrency adoption is observed in countries such as India, Turkey, and Nigeria, where participation in crypto markets is often associated with the use of digital assets as a hedge against inflation and currency instability. The Central African Republic represents a notable exception, as it introduced cryptocurrency as legal tender; however, despite this regulatory approach, the country exhibits a relatively low estimated trading volume. In contrast, China and Algeria maintain strict regulatory restrictions on cryptocurrencies within their financial systems, which significantly limit or suppress formal trading activities. Overall, these data provide an indication of the relative size of national cryptocurrency markets, measured through trading intensity, and suggest a relationship between market activity and the degree of regulatory strictness.

Table 1

Cryptocurrency Legal Status and Estimated Annual Trading Volume by Country (2025)

Country	Legal Status	Estimated Annual Crypto Trading Volume (B USD)
United States	Fully Legal (Regulated Asset)	1,200
Germany	Fully Legal (Regulated Asset)	220
Japan	Fully Legal (Regulated Asset)	180
Singapore	Fully Legal (Regulated Asset)	250
Brazil	Fully Legal (Regulated Asset)	150
India	Partial / Limited Regulation	900
Turkey	Partial / Limited Regulation	200
Nigeria	Partial / Limited Regulation	120
Ukraine	Legal but Restricted	100
Thailand	Legal but Restricted	140
South Africa	Legal but Restricted	90
China	Banned	0
Algeria	Banned	0
Central African Republic	Legal Tender	<5

Source. Authors compilation based on consolidated findings from IMF (2025), Chainalysis Global Crypto Adoption Index (2025) and World Bank (2025).

In Table 2, the author presents estimated cryptocurrency trading volumes, adoption rates, leading cryptocurrency types, and key characteristics by country. India has the largest retail cryptocurrency user base globally and ranks first in the Global Crypto Adoption Index, with an estimated annual trading volume exceeding 1.2 trillion USD. The most widely used cryptocurrencies in India include Bitcoin, Ethereum, and various stablecoins. The United States records an ownership rate of approximately 15.6%, representing around 53 million cryptocurrency users. The most commonly used digital assets include Bitcoin, Ethereum, and U.S. dollar pegged stablecoins such as Tether and USD Coin. In addition, the United States generated more than 1 trillion USD in on-chain transaction value in the first half of 2025. Brazil represents one of the fastest-growing cryptocurrency markets in Latin America, with an ownership rate of approximately 12% and a large user base of around 26 million individuals primarily using Bitcoin, Ethereum, and stablecoins. The United Arab Emirates records one of the highest cryptocurrency ownership rates globally, estimated at 30.4%, accompanied by a moderate trading volume dominated by Bitcoin and stablecoins. Within Europe, the Netherlands represents a strong cryptocurrency market, characterized by an ownership rate of 17.8% and a relatively high trading volume per capita. Finally, Russia demonstrates substantial trading activity with an estimated ownership rate of 17.4%, where users primarily trade Bitcoin and various altcoins.

Tabele 2

Adoption and estimated trading volume by top countries

Country	Leading Crypto Types Used	Adoption / Ownership Rate	Estimated Trading Volume / Activity	Key Notes
India	BTC, ETH, stablecoins	#1 in global adoption (highest overall index)	>1.2 Tln USD annual volume (2025)	Largest retail user base globally; strong adoption; Source: Coinpedia Fintech News;
United States	BTC, ETH, USDT/USDC	15.6 % ownership; 53 million users	>1 Tln USD on-chain value (first half 2025)	Major institutional activity & ETFs driving volume; Source: Coinpedia Fintech News;
Vietnam	BTC, ETH, USDT	21 % ownership	High P2P activity & DeFi use	Among top in global adoption indices; Source: Coinpedia Fintech News;
Nigeria	BTC and stablecoins (USDT)	19–32 % ownership; strong P2P usage	Significant inflows; strong remittance use	Highest Africa adoption; stablecoins widely used; Source: Social Capital Markets;
Brazil	BTC, ETH, stablecoins	12 % ownership; 26 million users	Large user base	Growing Latin America market; Source: Coin Law.
United Arab Emirates	BTC, stablecoins	30.4 % ownership	Moderate trading activity	One of the highest ownership rates globally; Source: Coin Law;
Philippines	BTC, ETH, USDT	22–23 % ownership	Large remittance-driven use	Rapid growth in crypto payments/remittances; Source: MEXC;
Ukraine	BTC, ETH, stablecoins	10.6 % ownership	High trading per internet user	High on-chain engagement; Source: Coinpedia Fintech News;
Russia	BTC, ETH, various altcoins	17.4 % ownership	634 B USD; Top exchange activity	Very high trading volume nominally; Source: Social Capital Markets;
Netherlands	BTC, ETH, stablecoins	17.8 % ownership	High trading per capita	Strong European market; Source: Demand Sage;
South Africa	BTC, stablecoins	19.6 % ownership	Moderate activity	P2P and merchant acceptance rising; Source: Demand Sage;
Thailand	BTC, ETH, USDC	14.7 % ownership	Program enabling crypto payments	Emerging payment use cases; Source: DemandSage;

Source. Autors compilation based on the data from internet sites
<https://coinpedia.org/research-report/global-crypto-adoption-report/>
<https://socialcapitalmarkets.net/crypto-trading/cryptocurrency-statistics/>
<https://coinlaw.io/cryptocurrency-adoption-by-country-statistics/>
<https://www.mexc.co/en-NG/news/815037>
<https://www.demandsage.com/crypto-adoption-statistics/>

Note: Adoption / Ownership rate: Estimated % of population owning or using crypto or rank in global adoption indices.

Leading crypto types based on global usage data: BTC, ETH, stablecoins like USDT/USDC reported as dominant.

Trading volume / Activity: Approximate figures or relative market activity; not all countries publish exact volumes, so some are based on research estimates.

Overall, the comparative analysis indicates that cryptocurrency adoption and trading activity vary significantly across countries, reflecting differences in regulatory frameworks, levels of technological development, and investor interest. Countries such as India and the United States dominate the global market in terms of trading volume and user base, while the United Arab Emirates demonstrates one of the highest ownership rates, indicating strong retail adoption. At the same time, emerging markets such as Brazil show rapid growth in user participation, whereas European markets, represented by the Netherlands, are characterized by relatively high trading activity per capita. These findings suggest that the global cryptocurrency ecosystem is highly heterogeneous, with adoption patterns shaped by economic conditions, regulatory approaches, and the maturity of financial markets.

From a broader perspective, digital currencies should not be perceived merely as a temporary technological trend but rather as a structural transformation of the global financial system (Gomber, Koch, & Siering, 2017). Their use is expected to expand in both institutional finance and everyday economic activities among individuals and corporations, potentially reshaping payment systems, cross-border transactions, and financial intermediation (Arner, Barberis, & Buckley, 2016). Furthermore, continuous education and capacity building related to cryptocurrencies, blockchain technology, and digital finance are essential for individuals, financial institutions, and policymakers seeking to adapt to the evolving digital economy (OECD, 2023). In this regard, collaboration between regulatory authorities, academic institutions, and the private sector could play a crucial role in fostering innovation while maintaining financial stability (Financial Stability Board, 2023).

In the Republic of Serbia, the regulatory framework governing digital currencies is primarily overseen by the National Bank of Serbia, which supervises the financial system and grants licenses to companies providing

digital asset related services, such as exchange platforms and custody providers (National Bank of Serbia, 2023). The main objectives of this regulatory approach are to ensure financial market stability, protect consumers, and prevent illicit activities such as money laundering and terrorist financing (Law on Digital Assets, Republic of Serbia, 2020). Over the past decade, the Serbian economy and banking sector have undergone a significant process of digital transformation, characterized by the expansion of electronic banking services, digital payment systems, and financial technology solutions. In this context, the broader adoption of digital currencies could represent an important step toward further modernization and increased efficiency of financial transactions. At present, cryptocurrency trading is permitted in Serbia, and digital assets may be converted into e.g. the euro and subsequently exchanged into Serbian dinars (National Bank of Serbia, 2023). However, commercial banks currently do not directly support cryptocurrency payments within the traditional payment infrastructure.

Within the domestic legal framework, cryptocurrencies such as Bitcoin and Ethereum are classified as digital assets or investment instruments rather than legal tender (Law on Digital Assets, Republic of Serbia, 2020). Consequently, their direct integration into the national payment system remains limited, and the timeline for their broader incorporation into the banking and payment infrastructure remains uncertain. Nevertheless, the existing regulatory framework provides a foundation for the gradual development of the domestic digital asset market. For Serbia, the potential future introduction of a central bank digital currency Digital RSD could represent an additional step toward strengthening the efficiency, transparency, and security of the national payment system. Such an initiative would align with global trends in central bank digital currency development observed in several jurisdictions (Bank for International Settlements, 2023). However, successful implementation would require careful consideration of technological infrastructure, cybersecurity risks, regulatory harmonization with international standards, and the potential impact on the banking sector (Auer, Cornelli, & Frost, 2020). Overall, the long-term development of cryptocurrencies and other digital currencies will depend on achieving an appropriate balance between technological innovation and the establishment of a transparent, coherent, and effective regulatory framework (International Monetary Fund, 2024; Financial Stability Board, 2023). In the Republic of Serbia, a gradual and well-regulated approach to the adoption of digital assets and the potential introduction of a digital dinar could contribute to strengthening the competitiveness and resilience of the national financial system in the digital era.

Based on the findings of this research, several policy recommendations can be proposed for economic policymakers in the Republic of Serbia. First, regulatory authorities should continue to develop a clear, transparent, and stable regulatory framework for digital assets and cryptocurrency-related services. A well-defined regulatory environment would reduce uncertainty for investors and financial institutions while ensuring adequate consumer protection and financial stability. Second, policymakers should support the development of technological infrastructure and encourage innovation within the domestic financial technology sector. Promoting cooperation between financial institutions, FinTech companies, and academic institutions could facilitate the development of blockchain-based solutions and enhance the competitiveness of the Serbian financial market. Third, consideration should be given to the long-term feasibility of introducing a digital dinar that is in line with international developments in digital currencies. Pilot projects and feasibility studies could provide valuable insights into the potential benefits and risks associated with the implementation of such a system. Finally, increasing financial literacy and digital education among citizens and businesses should represent an important strategic objective. Through a balanced approach that combines innovation, regulation, and education, Serbia could strengthen the resilience and modernization of its financial system in the emerging digital economy. These recommendations align with international best practices for the adoption of digital currencies (OECD, 2023; European Central Bank, 2024)

4. CONCLUSION

Based on the reviewed literature, it is evident that digital currencies, particularly cryptocurrencies, have attracted significant attention due to several advantages. These include global accessibility, with only a secure internet connection required; faster and lower-cost transactions; enhanced privacy for users; decentralized operation without control by any government or financial institution; promotion of financial inclusion; substantial potential for innovation; and the elimination of costs associated with printing and physically transporting currency notes. However, digital currencies also present considerable challenges, including security vulnerabilities, high price volatility, limited acceptance, operational difficulties, low levels of user understanding, regulatory uncertainty, and the irreversibility of transactions. New decentralized virtual currencies and stablecoins (e.g., Binance Coin and Tether) have emerged in the global market, competing with established cryptocurrencies such as Bitcoin and Ethereum. Governments and central banks in the European Union and the United States are actively considering the introduction of digital versions of the euro and the dollar, assessing their implications for financial stability. Meanwhile, China leads in the implementation of the digital yuan

while simultaneously maintaining a ban on other cryptocurrencies. In contrast, countries such as Switzerland have successfully integrated cryptocurrencies into some banking institutions, serving as models for broader adoption.

In the Republic of Serbia, the broader adoption of digital currencies faces specific challenges, including security risks, price volatility, a limited number of firms offering digital asset services, and insufficient public understanding of digital currencies. The National Bank of Serbia actively monitors monetary policy developments by the European Central Bank, and pilot project related to the digital euro is likely to influence domestic market considerations regarding the potential introduction of a digital dinar. The National Bank of Serbia regulates digital asset usage and licenses firms offering cryptocurrency-related services to ensure market stability, consumer protection, and the prevention of money laundering. Although the Serbian economy and banking sector are undergoing digital transformation, and the adoption of digital currencies represents a critical step in the modernization of financial transactions, cryptocurrencies currently remain classified as digital assets rather than legal tender. Consequently, the timeline for their integration into the domestic banking and payment infrastructure remains uncertain, highlighting the need for a carefully balanced regulatory approach that supports innovation while maintaining financial stability. To support the development of digital currencies in Serbia, policymakers should promote clear regulatory guidelines, the development of technological infrastructure, and public education to ensure safe, efficient, and responsible adoption. These conclusions align with findings from recent studies on cryptocurrencies and central bank digital currencies (Hardle, Harvey, & Reule, 2020; European Central Bank, 2024; National Bank of Serbia, 2023).

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