



International Journal of Multidisciplinary Research in Science, Engineering and Technology

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)



Impact Factor: 8.206

Volume 8, Issue 9, September 2025



International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Role of Cryptocurrency in International Finance: Risks and Opportunities

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ABSTRACT: Cryptocurrencies are transforming the landscape of international finance by making cross-border transactions faster, cheaper, and more decentralized. This study draws on secondary data from global institutions and industry reports to explore the opportunities and risks associated with digital currencies. Some of the key advantages include promoting financial inclusion, lowering remittance costs, and allowing for portfolio diversification. However, there are also challenges to consider, such as price volatility, regulatory uncertainties, cybersecurity threats, and environmental issues. Central Bank Digital Currencies (CBDCs) are emerging as a regulated alternative that seeks to blend innovation with stability. The findings suggest that while cryptocurrencies present both risks and opportunities, their impact on a global scale will largely depend on effective regulation and widespread adoption.

KEYWORDS: Cryptocurrency, Blockchain, International Finance, Financial Inclusion, Central Bank Digital Currencies (CBDCs), Volatility, Cross-Border Payments

I. INTRODUCTION

Cryptocurrency has become one of the biggest developments in world finance in recent years. Since the launch of Bitcoin in 2009, the concept of digital, decentralized currency has grown to encompass dozens more cryptocurrencies, including stablecoins, Ethereum, and Ripple. Blockchain technology, which records transactions in a secure, transparent, and decentralized manner, powers these digital assets. Cryptocurrencies are distinct in the financial system because they are not regulated by governments or central banks like regular currencies are. Peer-to-peer transactions across borders may occur quickly because to this independence from middlemen, which cuts down on the time and expense of international transfers.

The globalization process is intimately linked to the increasing interest in cryptocurrencies. Transactions involving several parties, currencies, and rules are common in international finance, which can cause delays and expensive expenses. By offering a global trade that transcends national boundaries, cryptocurrencies aim to address these problems. For instance, workers may use cryptocurrencies to send money home more quickly and for less money than they would with traditional banking systems. Cryptocurrencies can potentially be used by companies who trade internationally to save transaction costs and mitigate exchange rate concerns. Digital currencies are therefore being viewed more and more as instruments to increase global financial efficiency.

Cryptocurrencies are changing investing patterns in addition to payments. They are viewed as alternative investments with the potential for large returns by many individuals and institutional investors. Global financial institutions are investigating blockchain-based settlement solutions, and large multinational firms have started experimenting with bitcoin payments. These changes demonstrate how cryptocurrencies are progressively becoming more well-known in the global financial scene. Concurrently, central banks worldwide are investigating Central Bank Digital Currencies (CBDCs) as a means of regulating and competing with digital currency. But even if cryptocurrencies provide a lot of benefits, there are also substantial dangers and restrictions that should not be disregarded. Uncertainty in regulations is the first issue. Governments find it difficult to regulate the usage of cryptocurrencies due to their decentralized nature. Along with payments, cryptocurrencies are also altering the way people invest. Many individual investors and



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institutional investors consider them to be alternative investments with high potential returns. Blockchain-based settlement solutions are being researched by international financial institutions, and big multinational corporations have begun experimenting with bitcoin payments. These modifications show how cryptocurrencies are steadily gaining recognition in the international financial arena. In order to compete with and regulate digital money, central banks throughout the world are looking at Central Bank Digital Currencies (CBDCs).

However, despite all of the advantages that cryptocurrencies provide, there are still significant risks and limitations that should not be overlooked. The first problem is the lack of clarity in rules. The decentralized structure of cryptocurrencies makes it challenging for governments to control their use. The significance of cryptocurrencies is still increasing in spite of these obstacles. Proponents contend that by giving unbanked people access to financial services, they advance financial inclusion. People without bank accounts may use mobile-based cryptocurrency wallets to store money and make payments in many developing nations. Cryptocurrencies lessen reliance on expensive middlemen like banks and money transfer services for immigrants and small enterprises. They can help lessen inequality in international finance in this way.

Additionally, the blockchain technology that underpins cryptocurrency provides security and transparency in record-keeping. In international trade, where parties frequently lack confidence, this is especially helpful. By ensuring that payments and delivery take place as scheduled, smart contracts—self-executing agreements written on the blockchain—can lower fraud and conflicts. These developments demonstrate how blockchain technology and cryptocurrencies might revolutionize global banking beyond straightforward transactions.

As a result, a fair analysis of the function of cryptocurrencies in global finance is necessary. It is a source of risk as well as an instrument of opportunity. On the one hand, it offers more financial inclusion, reduced costs, and quicker transactions. However, it also brings with it environmental difficulties, regulatory uncertainty, security issues, and volatility. Financial institutions, corporations, and governments must figure out how to maximize the advantages while lowering the risks.

Analyzing the dual nature of cryptocurrencies in global finance is the goal of this study. The emphasis will be on recognizing the potential they present for effectiveness, transparency, and inclusiveness as well as the dangers and constraints that presently prevent their widespread use. By examining both viewpoints, the research will provide light on whether cryptocurrencies have the potential to significantly alter the global financial system or if they will just have a minor effect as a niche invention.

OBJECTIVES

- To examine the role of cryptocurrencies in international finance, particularly in cross-border payments and remittances.
- To analyze the opportunities created by cryptocurrencies, such as financial inclusion, efficiency, and innovation.
- To identify the major risks and challenges of cryptocurrencies, including volatility, regulatory uncertainty, and security concerns.
- To assess the potential of Central Bank Digital Currencies (CBDCs) as a regulated alternative to private cryptocurrencies.

II. REVIEW OF LITERATURE

Nakamoto, S. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System. This groundbreaking white paper introduced Bitcoin as the very first decentralized currency based on blockchain technology, aiming to cut out the middlemen like banks. It suggested a cryptographic proof-of-work system to guarantee security, immutability, and transparency in peer-to-peer transactions. By tackling the issue of double-spending without needing a trusted authority, Nakamoto truly transformed the landscape of digital payments. The paper highlighted advantages such as lower transaction costs and quicker settlements, while also hinting at future challenges—like energy consumption, scalability, and governance—that still influence the cryptocurrency world today.

Yermack, D. (2015). Is Bitcoin a Real Currency? An Economic Appraisal. NBER. Yermack took a critical look at Bitcoin's economic features, measuring it against the traditional definitions of money (medium of exchange, store of value, and unit of account). The study pointed out that Bitcoin's extreme volatility and deflationary nature hinder its



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ability to serve as a stable currency. While recognizing Bitcoin's potential as a payment innovation, Yermack concluded that it functions more like a speculative investment rather than a dependable medium for international transactions. This research is vital for grasping the challenges cryptocurrencies face in becoming part of mainstream finance.

Baur, D. G., Hong, K., & Lee, A. D. (2018). Bitcoin: Medium of Exchange or Speculative Assets? Journal of International Financial Markets. This article explored Bitcoin's dual nature by examining empirical data from global financial markets. The authors discovered that speculative trading largely dominated Bitcoin's applications, overshadowing its role as a medium of exchange. Still, the study highlighted the benefits of including Bitcoin in a portfolio, particularly because of its low correlation with traditional financial assets.

The World Bank (2020) released a report titled "The Impact of Digital Currencies on Remittances." This report highlights how cryptocurrencies and blockchain technology can slash remittance costs by as much as 50% compared to traditional services like SWIFT, Western Union, or MoneyGram. This is especially important for low- and middle-income countries, where remittances make up a significant chunk of GDP. However, the report also pointed out some challenges, such as consumer protection issues, exchange rate fluctuations, and the need for regulatory compliance, which can hinder broader adoption. The findings emphasize the dual nature of cryptocurrencies: they have the potential to tackle global inequality while also introducing new systemic risks.

Chainalysis (2022). Global Crypto Adoption Index. The Chainalysis index provided solid evidence of how crypto is being adopted around the world, highlighting that countries like India, Nigeria, and Vietnam are at the forefront of grassroots adoption. Key factors driving this trend include remittances, the need to hedge against inflation, and limited access to traditional banking services. Importantly, the report pointed out that while crypto can promote financial inclusion, it also has the potential to enable regulatory evasion, money laundering, and illegal trade. The insights from the index are crucial for policymakers, helping them differentiate between genuine financial empowerment and misuse for illicit activities, which is essential for discussions on international finance.

European Central Bank (2023). Central Bank Digital Currencies (CBDCs) and International Finance. The ECB examined CBDCs as a regulated alternative to private cryptocurrencies, merging the efficiency of blockchain technology with the oversight of central banks. The report stressed that CBDCs could help reduce volatility, mitigate systemic risks, and improve the efficiency of cross-border payments, all while maintaining control over monetary policy. It also pointed out the geopolitical ramifications of rolling out CBDCs, as countries like China (with its digital yuan) and the EU are testing pilot projects. The study reinforced the idea that CBDCs could transform international finance by bridging the gap between the innovative world of crypto and the stability offered by central banks.

The IMF (2021) published a report on "Crypto Assets and Financial Stability Risks." This report took a broader economic view, looking at how the widespread use of crypto assets could shake up monetary policy, capital controls, and overall financial stability. It raised concerns about risks like capital flight, currency substitution (or cryptoization), and a rise in cybercrime, especially in vulnerable economies. On the flip side, the IMF recognized the potential for greater financial inclusion and enhanced efficiency in cross-border payments. Ultimately, the report urged for a balanced regulatory framework to leverage the benefits of crypto while addressing the systemic risks involved.

KPMG (2024) released a report titled "Crypto Assets: Risks and Opportunities for Global Finance." This in-depth analysis delves into the dual nature of cryptocurrencies within the global financial landscape. It highlights significant risks such as market volatility, the environmental impact of mining, financial fraud, and the lack of proper regulation. On the flip side, the report also showcases exciting opportunities like improved efficiency in cross-border payments, advancements in blockchain trade finance, the tokenization of assets, and enhanced financial inclusion. KPMG emphasizes that for organizations and governments to truly harness the potential of crypto in international finance, they need to implement strong compliance frameworks, prioritize environmental sustainability, and develop scalable blockchain infrastructures.

III. RESEARCH METHODOLOGY

This research takes a descriptive and analytical approach to providing an understanding of the role of cryptocurrencies in the international finance system, and the risks and rewards they provide. The research uses secondary data solely



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because of the global aspect of the topic; therefore, knowledge should be drawn from reputable institutions and organizations instead of surveys or interviews with individuals.

Data Collection

The data utilized for this study was collected from credible secondary sources, reports, publications, and databases of prominent international organizations as follows:

European Central Bank (ECB): publications pertaining to monetary policy, financial stability, and digital assets.

International Monetary Fund (IMF): working papers and policy notes examining the impacts of cryptocurrencies on international finance.

Organisation for Economic Co-operation and Development (OECD): publications and reports on regulations, risks, and global adoption of digital assets.

World Bank: research and studies on remittances, cross-border payments, and financial inclusion.

Chainalysis and KPMG: industry reports and market data on cryptocurrency adoption, investment trends, and risks.

These sources were selected because they are trustworthy, research-based, and timely sources of information on the topic.

Data Analysis

The research adopts Thematic Analysis to interpret the data collected. Specifically, reports, working papers, and market reports were systematically reviewed resulting in recurring patterns. These recurring patterns were grouped into important themes, namely:

- Adoption and Financial Inclusion
- Cross-Border Payments and Efficiency
- Investment and Volatility
- Financial Stability Risks
- Central Bank Digital Currencies (CBDCs)
- Opportunities and Challenges

By taking a thematic approach to the data analysis, this study is able to present findings in an organized manner and highlight both opportunities and risks of cryptocurrencies in international finance.

Scope of the Study

This research will be restricted to the international financial system and the influence of cryptocurrencies on:

- Remittances and cross-border payment systems
- Global investment flows
- Monetary policy challenges
- Financial risks and stability
- Emerging digital finance opportunities

Limitations of the Study

- The research draws only on secondary data, there are no primary surveys or interviews.
- Cryptocurrency is a fast-moving field and some findings may become less relevant over time.
- The analysis relies on institutional and industry reports, which may not fully represent views from smaller economies or private users.

IV. DATA ANALYSIS AND INTERPRETATION

This study examined insights from major organizations such as the World Bank, IMF, OECD, ECB, Chainalysis, KPMG, as well as recent market data sources, to understand how cryptocurrencies are shaping international finance. The findings reveal both opportunities and risks. The analysis is organized into thematic sections, blending previous evidence with new statistics and market growth figures.

1. Growing Adoption and Financial Inclusion

According to the Chainalysis Global Adoption Index (2022), countries such as India, Nigeria, and Vietnam are leading in everyday cryptocurrency use. This adoption is largely driven by financial exclusion, as many individuals in these



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regions lack access to formal banking services. For them, cryptocurrencies provide a cheaper and faster channel for remittances and domestic transfers.

By contrast, in developed economies, cryptocurrencies are used primarily as investment instruments or speculative assets. This dual role illustrates that in developing markets, crypto acts as a financial inclusion tool, while in advanced economies, it often serves as a portfolio diversification or trading vehicle.

2. Lower Cost in Cross-Border Payments

The World Bank (2020) estimated that using cryptocurrencies and blockchain for remittances can reduce transfer costs by nearly 50% compared to traditional systems like SWIFT or Western Union. This translates to significant savings for migrant workers and small businesses.

However, barriers remain: unstable exchange rates, transaction fees during network congestion, and unclear regulations discourage reliance on crypto for large-scale remittance flows. Nevertheless, remittance-oriented coins and stablecoins are showing promise, with faster adoption in regions with high migrant worker populations.

3. Investment Benefits but High Volatility

Studies by Baur, Hong & Lee (2018) and KPMG (2024) emphasize that cryptocurrencies exhibit far higher volatility than conventional currencies or equities. This makes them attractive to investors seeking speculative gains and valuable for portfolio diversification, since their price movements are not always correlated with traditional markets.

Yet this very volatility undermines their suitability as a stable medium of exchange in everyday trade or global commerce. Market data highlights this instability: in early 2025, the global crypto market experienced a sharp 18.6% decline in capitalization before recovering, demonstrating both growth potential and fragility.

4. Risks for Global Financial Stability

Reports by the IMF (2021) and OECD (2024) warn that uncontrolled crypto expansion could undermine global financial stability. Risks include:

- Capital flight from emerging economies,
- Illicit money flows, and
- “Cryptoization,” where private cryptocurrencies displace national currencies.

If such risks materialize without proper regulatory oversight, governments could lose control over monetary policy, heightening financial instability.

5. Central Bank Digital Currencies (CBDCs)

Institutions such as the European Central Bank (2023) argue that CBDCs offer a safer pathway. Pilot projects in China (e-CNY) and trials in Europe showcase how digital sovereign currencies can combine the efficiency of blockchain with governmental oversight and monetary control. CBDCs are thus positioned as a middle ground—leveraging the advantages of digital assets while minimizing systemic risks.

6. Updated Market Data and Growth Trends

The cryptocurrency ecosystem has expanded rapidly:

- Total Market Capitalization: Approximately US\$ 3.9–4.2 trillion in mid-2025.
- Daily Trading Volume: Averaging US\$ 130–150 billion globally.
- Stablecoins: Market cap reached a record US\$ 250–260 billion in 2025, up by ~22% year-to-date.
- Bitcoin Dominance: Maintains a 55–60% share of global market cap.

These figures reflect both sustained investor confidence and the growing role of stablecoins in payments and liquidity provision.



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7. Popular Cryptocurrencies and Their Growth

The leading cryptocurrencies highlight the diversity of functions in the digital asset ecosystem:

Cryptocurrency	Market Cap (mid-2025)	Approx. Price	Primary Role
Bitcoin (BTC)	~US\$ 2.2–2.3 trillion	~US\$ 110,000	“Digital gold,” store of value, high adoption.
Ethereum (ETH)	~US\$ 500–550 billion	~US\$ 4,000–5,000	Smart contracts, DeFi backbone.
XRP	~US\$ 170 billion	~US\$ 2.8–3.0	Cross-border payments.
Tether (USDT)	~US\$ 167 billion	~US\$ 1 (pegged)	Stablecoin for liquidity, remittances.
USD Coin (USDC)	~US\$ 70–80 billion	~US\$ 1 (pegged)	Regulated stablecoin, transparent reserves.
BNB / Solana / Cardano	BNB ~US\$ 120B; SOL ~US\$ 110B; ADA ~US\$ 30–40B	Varied	Ecosystem coins, DeFi and staking networks.

This market dominance suggests that while Bitcoin remains the benchmark, **Ethereum, stablecoins, and payment-focused altcoins** are shaping functional adoption.

8. Opportunities

- **Financial Inclusion:** Provides banking alternatives for the unbanked.
- **Cheaper Cross-Border Payments:** Cuts remittance costs significantly.
- **Portfolio Diversification:** Low correlation with traditional markets.
- **Decentralized Finance (DeFi):** Unlocks lending, borrowing, and tokenized asset opportunities.
- **Innovation and Tokenization:** Real estate, supply chains, and other industries are experimenting with blockchain-based tokens.
- **Regulatory Momentum:** Countries developing frameworks (e.g., EU’s MiCA law) could drive safer institutional adoption.

9. Risks and Challenges

- **Extreme Volatility:** Sudden swings undermine stability.
- **Regulatory Uncertainty:** Sudden bans or restrictions disrupt adoption.
- **Illicit Finance:** Money laundering, terrorism financing remain concerns.
- **Stablecoin Vulnerabilities:** Risks of de-pegging or insufficient reserves.
- **Cybersecurity Issues:** Hacks, frauds, and smart-contract bugs persist.
- **Environmental Impact:** Energy-intensive mining raises sustainability debates.
- **Systemic Risk:** Growing integration into global markets could transmit shocks broadly.

Overall Interpretation

Cryptocurrencies represent a double-edged sword in international finance. On one hand, they improve access to finance, reduce remittance costs, accelerate transactions, and foster innovation. On the other, their volatility, potential for misuse, and systemic risks pose real challenges.

The future trajectory will depend heavily on the balance between innovation and regulation. If global institutions and national governments create effective regulatory frameworks while enabling innovation, cryptocurrencies and CBDCs could together reshape international finance in more inclusive, stable, and efficient ways.

V. FINDINGS AND DISCUSSION

Findings:

The study, based on secondary data, highlights the expanding role of cryptocurrency in international finance. The global cryptocurrency market was valued at USD 5.70 billion in 2024 and is projected to grow to USD 11.71 billion by



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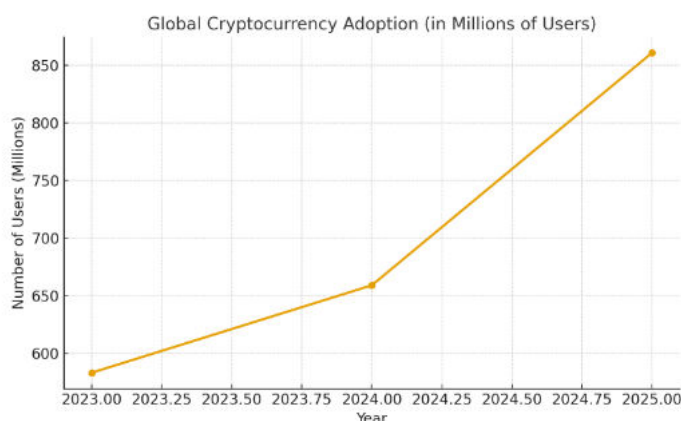
2030, reflecting a CAGR of 13.1%. By 2025, the total crypto market capitalization exceeded USD 3.5 trillion, supported by growing adoption and institutional interest.

Crypto adoption continues to rise globally, reaching 861 million users in 2025 (around 11% of the world's population) compared to 659 million in 2024. Adoption is uneven across regions but growing strongly in advanced economies. In the UK, adoption rose from 18% in 2024 to 24% in 2025, while France and Singapore also recorded double-digit growth in ownership. These figures highlight not just global expansion but also regional dynamics in adoption.

Regulatory frameworks are also evolving. In 2025, the U.S. introduced the GENIUS Act, the first major federal law regulating cryptocurrencies, followed by the CLARITY Act, which gained approval in the House of Representatives. Former President Donald Trump, upon signing the GENIUS Act into law, emphasized that it creates a framework for growth and stability in the digital asset market. These developments highlight increasing government recognition of crypto's role in international finance.

Cryptocurrencies are increasingly integrated into cross-border finance, with stablecoins playing a major role. In 2025, their market capitalization reached USD 252–300 billion, with decentralized stablecoins contributing ~20%. Monthly crypto transfer volumes in North America frequently exceeded USD 2 trillion, peaking near USD 3 trillion.

At the same time, risks remain significant. Price volatility persists, with Bitcoin trading daily between USD 114,924–117,935 and Ethereum between USD 4,434–4,645 in 2024. Fraud is also a major concern, with over 11,000 crypto ATM scam complaints in 2024, causing USD 250 million in losses. Cybersecurity breaches and regulatory inconsistency remain barriers to stability.

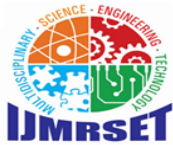


Interpretation:

The line graph shows a consistent upward trend in global cryptocurrency adoption:

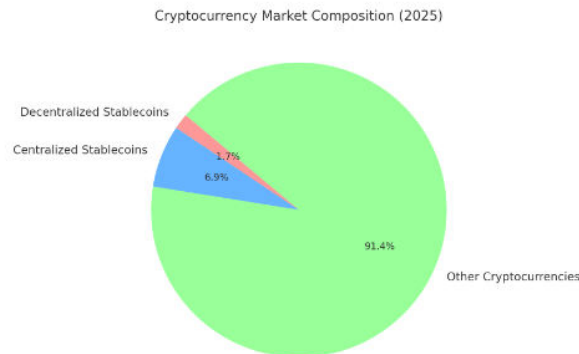
- In 2023, there were around 583 million users worldwide.
- This increased to 659 million in 2024, representing a 13% year-on-year growth.
- By 2025, the number of users reached 861 million, or approximately 11% of the global population.

This steady growth highlights increasing mainstream acceptance of cryptocurrencies. The rise is driven by expanding adoption in countries like the UK (18% in 2024 → 24% in 2025), alongside stronger institutional interest and regulatory clarity. The trend suggests that cryptocurrency is moving from a niche investment to a globally recognized financial tool.



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Interpretation:

The pie chart illustrates the distribution of the US\$ 3.5 trillion crypto market in 2025:

- Decentralized stablecoins account for about 2%, showing a growing but still small role in providing blockchain-native financial stability.
- Centralized stablecoins make up around 7%, reflecting their importance in cross-border payments and as a gateway for institutions entering the crypto space.
- Other cryptocurrencies (including Bitcoin, Ethereum, and altcoins) dominate the market with 91% share, underscoring their continuing role as the backbone of the crypto ecosystem.

Discussion:

The findings suggest that cryptocurrencies are gaining deeper traction not only globally but also across specific national markets. Countries like the UK have witnessed adoption rising to nearly a quarter of the population, while France and Singapore also report strong growth. This country-level adoption highlights the widening geographic footprint of crypto and signals its potential to integrate further into traditional financial systems worldwide.

From an opportunity perspective:

- Cryptocurrencies support financial inclusion and enable access to banking in regions where traditional infrastructure is weak.
- They facilitate efficient cross-border payments, with stablecoins contributing significantly to US\$ 2–3 trillion monthly transfer volumes in North America.
- Growing adoption in advanced economies (UK, France, Singapore) reflects increasing mainstream acceptance.

Regulatory clarity in leading economies is strengthening legitimacy. In 2025, the GENIUS Act and CLARITY Act marked the first comprehensive U.S. laws on crypto, signaling a shift toward structured growth. Former President Donald Trump's endorsement further reinforced confidence in digital assets' role in finance.

From a risk perspective:

- Extreme volatility continues to undermine investor confidence and restrict mainstream adoption.
- Fraud, scams, and cybersecurity threats erode trust in the system, with \$250 million lost in 2024 alone due to ATM scams.
- Regulatory fragmentation across countries creates uncertainty for investors and businesses, despite some positive steps like the GENIUS Act and Spot Bitcoin ETFs.

One key limitation of this study is its reliance on secondary data. While market reports, regulatory updates, and news sources provide valuable insights, they may not fully capture real-time investor behavior, perceptions, or regional differences. Future research based on primary data, such as surveys or interviews with investors and financial institutions, could provide a more comprehensive understanding of cryptocurrency's role in global finance.



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In summary, the combination of rising global adoption, supportive regulations in major economies, and strong institutional interest highlights cryptocurrency's potential to reshape international finance. However, risks related to volatility, fraud, and uneven regulations continue to be critical barriers to its stability and mainstream use.

CHALLENGES AND LIMITATIONS OF CRYPTOCURRENCY IN INTERNATIONAL FINANCE

In the sphere of international finance, there is a growing conversation about cryptocurrencies. They are beneficial for international trade and remittances because they offer quick, borderless, and decentralized transactions. However, in spite of these advantages, cryptocurrencies still have a lot of drawbacks. Their future place in the global financial system is called into question by these problems.

1. The uncertainty of regulations

A significant obstacle is the lack of consistent regulation. Cryptocurrency policies vary by nation; some permit trade, while others restrict or outright prohibit it. Businesses that operate internationally run the danger of legal issues due to the absence of worldwide regulations. The adoption of cryptocurrencies in formal transactions by banks and other institutions is also deterred by regulatory ambiguity.

2. Volatility of Price

The volatility of cryptocurrencies such as Ethereum and Bitcoin is very significant. Their worth can change in a matter of hours. International payments are at danger due to this unpredictability. A company that transfers money overseas can lose value before the transaction is finished. Due to their volatility, cryptocurrencies are unable to serve as a reliable medium of exchange.

3. Risks to Security

Despite the security of blockchain, hackers, fraud, and scams frequently target exchanges and wallets. The irreversible nature of blockchain makes it nearly hard to retrieve stolen funds. In international finance, this lack of safety undermines confidence and deters broader use.

4. Rapidity and Scalability

The majority of cryptocurrencies are unable to manage the volume of everyday transactions needed in international banking. The speed at which networks like Bitcoin handle transactions is slower than that of systems like Visa or SWIFT. Cryptocurrencies are less effective for widespread use when there is considerable demand because users experience expensive fees and delayed transfers.

5. Issues with the Environment

Environmental concerns are brought up by proof-of-work mining's enormous energy use. The significant carbon footprint of cryptocurrencies damages their reputation as a responsible financial instrument, since sustainability is becoming a more important concern in global finance.

6. Limited Adoption Worldwide

Even with their rise, cryptocurrencies are still not often used in international trade. The majority of governments and corporations favour conventional banking and currency systems. Additionally, there are expenses and dangers associated with converting cryptocurrencies into local currency, which limits their practicality.

VI. RECOMMENDATIONS

1. Harmonise Regulatory Frameworks: Nations should work together to create uniform, interoperable regulations that safeguard consumers, encourage openness, and lessen the requirements for compliance without impeding innovation. International organisations can promote discussion to harmonise tax, anti-money laundering, and investor protection regulations.

2. Boost Market Security and Surveillance: To stop fraud and hacking, exchanges and DeFi platforms must fortify their cybersecurity defences. It should be encouraged to invest in cutting-edge technologies like frequent audits and AI-based threat detection.



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3. Encourage Scalability Solutions: To increase transaction throughput and cut expenses, research and development into scalable blockchain technologies, such as Layer 2 protocols and Proof-of-Stake consensus mechanisms, must be given top priority.

4. In order to ensure that the unbanked and underbanked populations benefit from financial inclusion programs, policymakers and financial institutions should use digital wallets and cryptocurrencies to increase access in underserved areas.

5. Invest in Education and Transparency: It's critical to educate investors, regulators, and the public about the advantages and hazards of cryptocurrencies. Clear communication and operational transparency will promote responsible adoption and foster trust.

6. Track the effects on the environment: To solve environmental issues, cryptocurrency mining and transaction processing must adopt sustainable practices, such as switching to energy-efficient consensus techniques.

Cryptocurrency has the potential to become an essential part of a more open and effective global financial system if regulatory strictness is balanced with technological innovation and inclusivity.

VII. CONCLUSION

With their enormous potential for innovation, financial inclusion, and the modernisation of cross-border transactions, cryptocurrencies have become a game-changing phenomenon in international finance. Their blockchain technology and decentralised structure facilitate quicker, more affordable payments and advance the democratisation of financial services internationally. The development of Central Bank Digital Currencies (CBDCs) and growing institutional adoption highlight how they are becoming more integrated into the conventional financial ecosystem.

Adoption of cryptocurrencies does, however, come with significant risks and difficulties. Their stability and appropriateness as mainstream financial instruments are questioned due to market volatility, regulatory fragmentation, security flaws, and scalability constraints. Global efforts to reduce risks while promoting innovation are highlighted by the changing regulatory environment, which includes programs like the EU's MiCAR and stricter AML regulations. However, differences between jurisdictions make it difficult to achieve uniform oversight and clear legal provisions, both of which are essential for long-term growth.

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