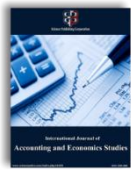
International Journal of Accounting and Economics Studies, 12 (SI-1) (2025) 297-302

International Journal of Accounting and Economics Studies

Website: www.sciencepubco.com/index.php/IJAES
https://doi.org/10.14419/8qm08e02
Research paper



Cryptocurrency Regulation and Its Impact on Global Financial Stability

Dr. Sadaf Hashmi [1 *], Dr. Madhusmita Dash [2], Dr.M. John Paul [3], Dr.K. Suneetha [4], Raman Verma [5], Lalit Khanna [6], Dr. Rahul Mishra [7]

[1] *Associate Professor, ISME, ATLAS SkillTech University, Mumbai, India.*
[2] *Associate Professor, Department of Humanities and Social Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India.*
[3] *Associate Professor, Master of Business Administration, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India.*
[4] *Professor, Department of CS & IT, Jain (Deemed-to-be University), Bangalore, Karnataka, India.*
[5] *Centre of Research Impact and Outcome, Chitkara University, Rajpura, Punjab, India.*
[6] *Chitkara Centre for Research and Development, Chitkara University, Himachal Pradesh, India.*
[7] *Assistant Professor, Maharishi School of Business Management, Maharishi University of Information Technology, Lucknow, Uttar Pradesh, India.*
**Corresponding author E-mail: sadaf.hashmi@atlasuniversity.edu.in*

Received: May 28, 2025, Accepted: June 4, 2025, Published: August 28, 2025

Abstract

Savings alone might not be sufficient to provide people's financial stability in an era where financial needs are ever evolving and increasing. Two fundamental considerations may be the main cause of this: first, the idle money in a person's savings account represents an opportunity cost because it cannot be used to create additional money, and second, it is unable to counteract the negative consequences of inflation. Therefore, it would be more advantageous if the funds were used to create greater revenue. One of the most popular and efficient ways to build wealth in this direction is by investment, which yields higher returns than inflation. These days, electronic payments are used for most transactions instead of cash. Financial institutions like commercial banks and credit card companies enable the electronic transfers from deposit and credit accounts that make up most of these e-payments. These financial institutions use private account ledgers that are only accessible to them and that they can change, in addition to private electronic networks. Due to the need for low-friction e-commerce of all kinds, online payment solutions have proliferated over the past ten years. Additionally, retail investors continue to dominate the cryptocurrency markets. But whether this increase in retail interaction is a passing trend or the beginning of a long-term change in investment behavior is still up in the air.

Keywords: *Cryptocurrency; Financial Stability; Regulation; Savings; Payment.*

1. Introduction

The evolution of cryptocurrency has significantly impacted global financial systems, raising concerns regarding security, regulation, and financial stability. Cryptocurrencies like Bitcoin and Ethereum offer decentralized alternatives to traditional fiat currencies, but their rapid growth, anonymity, and volatility pose unique challenges for regulators and policymakers (Chauhan, 2020). As nations struggle to establish consistent regulatory frameworks, the global financial community is confronted with risks such as cross-border arbitrage, speculative bubbles, and systemic threats tied to stablecoins and decentralized finance (Feinstein & Werbach, 2021). Despite numerous benefits, including financial inclusion, transaction efficiency, and blockchain transparency, cryptocurrencies are vulnerable to misuse, including fraud, money laundering, and terrorist financing (Chandio et al., 2020). Several countries have introduced policy interventions, yet the lack of international coordination exacerbates regulatory loopholes (Srokosz & Kopciaski, 2015). In this context, understanding the economic and behavioral impact of cryptocurrency regulation becomes essential for maintaining global financial stability. This paper focuses on evaluating the effect of cryptocurrency regulation on financial stability, with an additional emphasis on investor behavior using the Theory of Planned Behavior (TPB). By analyzing investor attitudes, subjective norms, and perceived control, we aim to understand how regulatory policies influence both market behavior and systemic risk. H1: Stronger cryptocurrency regulations correlate with reduced market volatility and improved global financial stability. This study adopts a mixed-method approach, combining regulatory policy analysis, statistical modeling, and a TPB-based investor survey to provide a comprehensive framework for understanding the regulatory-economic nexus in the cryptocurrency ecosystem.

Fig. 1: Regulating Crypto

Cryptocurrencies are essentially fiduciary in that they are not supported by any government, even though they typically lack a centralized issuer (Chauhan, 2020). A decentralized system, cryptocurrencies allow transactions to take place without the involvement of a central organization (Feinstein & Werbach, 2021). The creation of the 'blockchain,' a universal distributed ledger that enables transaction confirmation and the monitoring of individual cryptocurrency balances, is how this decentralization is achieved (Anđelko & Radomir, 2023). Even in challenging circumstances, businesses and marketplaces have reached a critical point where operations can sustain even a majority of their workforce working remotely, despite the economic upheaval and volatility brought on by the global Covid-19 pandemic (Huang & Leu, 2011). Finance is still evolving despite the pandemic, and alternative finance, as well as research and analysis of emerging trends, have a place in a post-pandemic society (Lai et al., 2022).

2. Regulatory and Financial Risk Models

This section introduces models used to assess the impact of regulation on cryptocurrency market behavior. First, macro-financial indicators such as inflation rate, interest rates, and exchange rate fluctuations are integrated with crypto volatility data. Second, multivariate regression is used to identify whether regulatory interventions (e.g., bans, licenses, KYC mandates) significantly correlate with price fluctuations. Additionally, a survey-based model incorporating the Theory of Planned Behavior (TPB) evaluates how regulatory clarity influences investor intentions and behaviors. These approaches enable an understanding of both systemic and psychological dimensions of financial stability within the crypto ecosystem.

3. The Development of Currency

A distributed database shared by nodes in a computer network is called a blockchain. Like a database, a blockchain stores data in an electronic manner. To put it simply, this technology facilitates the storage and movement of data during cryptocurrency transactions. The crucial role that blockchains play in cryptocurrency systems like Bitcoin, where they maintain a safe and decentralized record of transactions, is widely recognized. The innovation of the blockchain is that it creates trust without the need for a reliable third party and guarantees the security and veracity of a data record. A blockchain and a conventional database have quite different data structures (Xiong & Luo, 2024). Blocks, which are collections of data, are how a blockchain gathers information. A data chain known as the blockchain is created when a block's storage capacity is achieved, at which point it is closed and connected to the block that came before it. A freshly created block is created from all the new data that comes after that newly added block, and when it is finished, it is added to the chain. Whereas a blockchain, as the name implies, arranges its data into parts (blocks) that are connected, a database normally arranges its data into tables. This data structure produces an irreversible temporal stream of data when it is applied decentralized manner. A block becomes a part of this chronology and is engraved in stone when it is full. A block is assigned a time stamp at the time of its addition to the chain. Although a blockchain can hold a variety of data, its most popular application to date has been as a transaction ledger (Azarenkova et al., 2018).

4. Digital Currency: A Revolution in Modern Finance

Investment and trading in cryptocurrencies are two distinct methods to get involved in the market, each with its own objectives and tactics. The duration of cryptocurrency holdings and the objectives of the trader or investor are the primary distinctions between cryptocurrency trading and investment. Trading is a more active strategy aimed at making money off the short-term swings in the price of cryptocurrencies, whilst investing is a longer-term strategy focused on producing a return on investment over time. One of the best ways to build money is through investing, which yields higher returns than inflation. Thus, bitcoin investment decisions are the focus of this study. Making choices about how to divide up scarce financial resources to maximize returns is the process of investing (Sukomardojo et al., 2023).

Fig. 2: Cryptocurrencies Regulation

Choosing the right asset classes, picking the best investment possibilities within each asset class, and determining when to buy and sell investments are all part of the investing decision-making process (Guo & Zhang, 2024). Any investor must make important investment decisions because they can have a big impact on their financial health. As a result, it is critical that investors thoroughly consider their options and choose assets that align with their goals and risk tolerance. Traditionally, traditional finance was the primary domain for making investment decisions. However, a lot of new dimensions are also quickly developing in this industry these days. Specifically, traditional finance is being challenged by behavioral finance and microfinance. Additionally, emotional intelligence is becoming recognized as a significant factor influencing financial choices (Srokosz & Kopciaski, 2015).

5. Add a Section on Policy Implications

The findings of this study support the need for globally coordinated policy frameworks for regulating digital assets. Regulatory sandboxes, stablecoin reserve mandates, and cross-border anti-money laundering protocols are essential to mitigating systemic risks. The data also reveal that behavioral guidance through investor education and transparency improves market confidence. Policymakers should consider scenario-based regulation models that balance innovation and risk, especially in emerging markets where crypto volatility affects monetary stability more acutely.

6. Results and Discussions

These ideas are predicated on the idea that the investor is logical, risk-averse, and uses the utility curve to optimize their well-being. The practice of traditional finance dates back hundreds of years and is founded on the ideas of risk management and basic financial analysis.

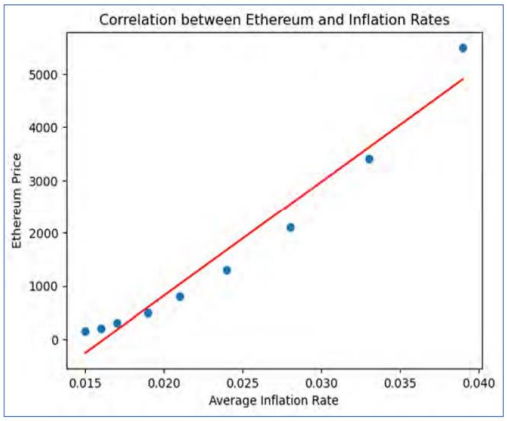


Fig. 3: Correlation Between Ethereum Prices and Inflation Rates of different countries

The principles of asset allocation and diversification, which lower risk and boost returns, are the foundation of traditional finance. It also includes using financial instruments (stocks, bonds, and mutual funds) and managing credit and debt. The foundation of traditional finance is the idea that people make logical financial decisions.

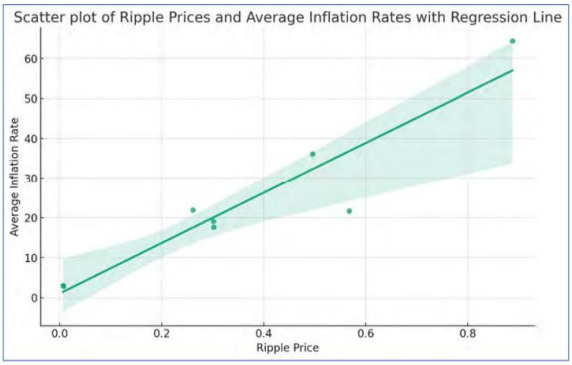


Fig. 4: Correlation Between Ripple Prices and Inflation Rates of Different Countries

This implies that individuals consider the advantages and disadvantages of a choice before selecting the one that best suits their needs. From there, behavioral finance developed, which currently postulates that psychological biases and other factors influence the economic behaviors of financial practitioners and investors. On the other hand, traditional finance concentrates on the economic and mathematical models that are employed to determine financial results. On the other hand, the relatively young area of "behavioral finance" aims to understand how people make decisions and how those decisions impact their financial results.

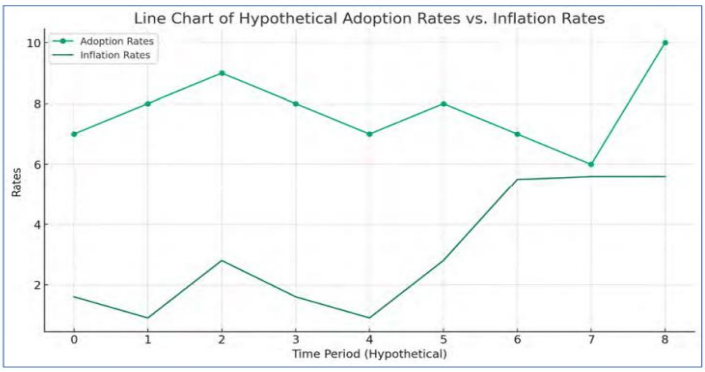


Fig. 5: Correlation between the Adoption Rate of Cryptocurrency and Inflation Rate

It recognizes that the financial industry must change and adjust to the Digital Age. The main goal is to investigate the possibilities of using blockchain and XBRL, two technologies that are supported by financial and tax authorities in many nations, to manage financial statements through artificial intelligence. Businesses can simplify reporting by using XBRL to generate the necessary information straight from financial data.

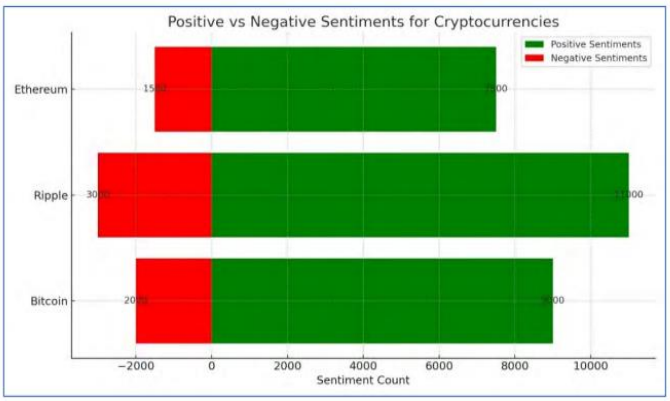


Fig. 6: Text Analysis to know the Positive and Negative Impact of Cryptocurrency

Contrarily, blockchain provides distributed registry advantages that are especially beneficial in the fields of finance, accounting, and auditing. These advantages include reduced errors, fraud protection, automation, big data analysis, cost savings, increased financial report reliability, and enhanced workflow efficiency.

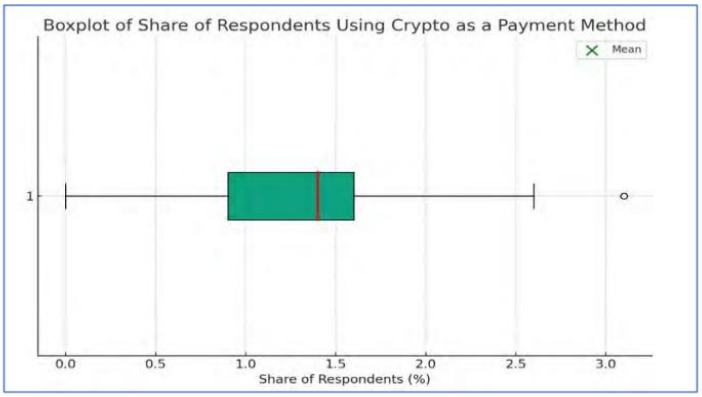


Fig. 7: Outlier Analysis using Z scores of Country-Specific Cryptocurrency Usage

Professionals can spend more time on more complex analysis and research by automating repetitive operations, which promotes a safer corporate and economic environment with fewer human errors. In the current digital and intelligent world, it highlights the necessity of adapting and managing work and time differently.

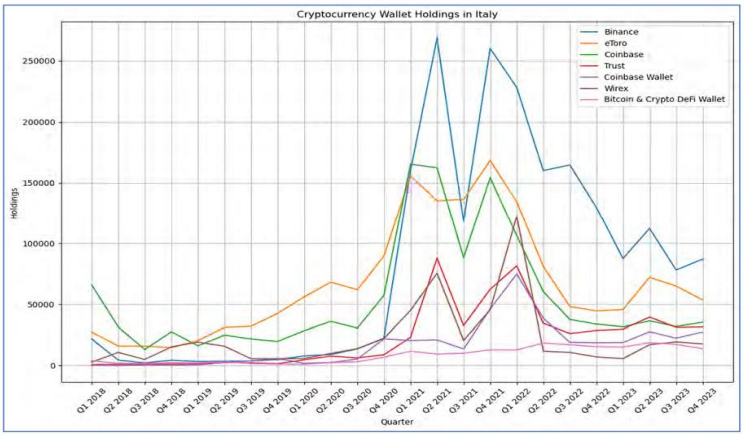


Fig. 8: Crypto Wallets Usage

A distributed consensus mechanism in the digital sphere is established by blockchain technology, according to the main premise. By facilitating safe and transparent transactions, it has the potential to democratize and transform several industries. Nevertheless, the chapter refers to comparing several cryptocurrencies without going into detail or offering a comprehensive analysis.

7. Conclusion

The results indicate that while attitude and perceived behavioral control have a beneficial impact on intention to embrace bitcoin, subjective norm has no discernible effect. The study found that the TPB model fits the data well and can explain the adoption of cryptocurrencies. However, it acknowledges that the results may be limited to the specific sample and environment, emphasizing the need for more research in a broader population. The market cap range, which ranges from a low of 149,294 to a high of 611,930, with the 25th and 75th percentiles landing at 262,509 and 363,432, respectively, truly highlights this volatility. These figures demonstrate just how erratic Bitcoin can be, impacted by everything from regulatory obstacles to spikes in investor confidence. Additionally, the study notes that Bitcoin dominates the digital currency market and contributes significantly to its total revenue, with Ethereum, Litecoin, and Ripple having a smaller market share. This study is limited by its reliance on self-reported behavioral data and the selective availability of country-level regulatory records. The investor sample is geographically constrained and may not represent global sentiment. Future research should include panel data across multiple economies and test the long-term effects of central bank digital currency (CBDC) rollouts on private crypto market volatility.

References

[1] Abbas, L. M., Shivraj, K. S., Selvi, U. P., Balasubramani, R., & Dhanasekaran, S. (2024). Exploring the relationship between academic science and economics through biofuel research: A scientometric analysis. Indian Journal of Information Sources and Services, 14(1), 85–92. https://doi.org/10.51983/ijiss-2024.14.1.4112

[2] Anđelko, C., & Radomir, F. (2023). Time dependent deformations of a coupled bridge: A case study. Archives for Technical Sciences, 2(29), 23–34. https://doi.org/10.59456/afts.2023.1529.023C

[3] Azarenkova, G., Shkodina, I., Samorodov, B., & Babenko, M. (2018). The influence of financial technologies on the global financial system stability. Investment Management & Financial Innovations, 15(4), 229.

[4] Chauhan, R. (2020). The evolution of cryptocurrency regulation and its influence on global financial markets. In Media Education and National Educational Policy (p. 662).

[5] Feinstein, B. D., & Werbach, K. (2021). The impact of cryptocurrency regulation on trading markets. Journal of Financial Regulation, 7(1), 48–99.

[6] Guo, D., & Zhang, H. (2024). Cryptocurrency and financial stability. International Journal of Innovation and Entrepreneurship, 3(1), 3.

[7] Huang, Y. L., & Leu, F. Y. (2011). Constructing a secure point-to-point wireless environment by integrating Diffie-Hellman PKDS RSA and stream ciphering for users known to each other. Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, 2(3), 96–107.

[8] Jassim, S. H., & Ridha, B. J. M. (2022). Effect of Innovative Promotion Mix on Interactive Marketing for Business Organizations: A Case Study in Iraqi General Company for Automotive and Equipment Industry. International Academic Journal of Social Sciences, 9(2), 8–20. https://doi.org/10.9756/IAJSS/V9I2/IAJSS0909

[9] Jovanić, T. (2020). An overview of regulatory strategies on crypto-asset regulation—Challenges for financial regulators in the Western Balkans. In I. Bajakić & M. Božina Beroš (Eds.), EU financial regulation and markets—Beyond fragmentation and differentiation (Conference proceedings). Zagreb.

[10] Lai, A. C. T., Ke, P. F., Chan, K., Yiu, S. M., Kim, D., Wong, W. K., Wang, S., Muppala, J., & Ho, A. (2022). RansomSOC: A more effective security operations center to detect and respond to ransomware attacks. Journal of Internet Services and Information Security, 12(3), 63–75. https://doi.org/10.22667/JISIS.2022.08.31.063

[11] Rahman, M. A., Pramanik, M. M. H., Hasan, M. M., Ahmed, T., Alam, M. A., Hasan, S. J., & Mahmud, Y. (2024). Sixth sanctuary identification research and establishment strategy for enhancing production and conservation management of Hilsa (Tenualosa ilisha) in Bangladesh. International Journal of Aquatic Research and Environmental Studies, 4(1), 37–47. https://doi.org/10.70102/IJARES/V4I1/4

[12] Rashidova, K., Kattaev, N., Akbarov, K., Karabaeva, G., Yakhshieva, Z., & Sultonov, M. (2024). Synthesis and properties of nickel copper phosphorus (NixCuyPz) catalyst. Natural and Engineering Sciences, 9(2), 386–394. https://doi.org/10.28978/nesciences.1574458

[13] Shabbooie, A., & Iranban, S. J. (2014). Prioritizing Effective Indicators in the Process of Strategic Management of Universities (Case study: Shiraz University). International Academic Journal of Organizational Behavior and Human Resource Management, 1(2), 47–64.

[14] Shirakawa, J. B. R., & Korwatanasakul, U. (2019). Cryptocurrency regulations: Institutions and financial openness.

[15] Srokosz, W., & Kopciaski, T. (2015). Legal and economic analysis of the cryptocurrencies' impact on the financial system stability. Journal of Teaching and Education, 4(2), 619–627.

[16] Sukomardojo, T., Pamikatsih, M., Arpianto, Y., Nuraini, A., & Fatmawati, E. (2023). Cryptocurrency and macro-economic stability: Impacts and regulations. International Journal of Science and Society, 5(4), 734.

[17] Xiong, X., & Luo, J. (2024). Global trends in cryptocurrency regulation: An overview. In The International Conference on Mathematical Research for Blockchain Economy (pp. 71–92). Springer, Cham.

[18] Madhanraj. (2025). Predicting nonlinear viscoelastic response of stimuli-responsive polymers using a machine learning-based constitutive model. Advances in Mechanical Engineering and Applications, 1(1), 41–49.
[19] Prasath, C. A. (2025). Digital Twin-Driven Predictive Maintenance in Intelligent Power Systems. National Journal of Intelligent Power Systems and Technology, 1(1), 29-37.
[20] Kavitha, M. (2024). Enhancing security and privacy in reconfigurable computing: Challenges and methods. SCCTS Transactions on Reconfigurable Computing, 1(1), 16-20. https://doi.org/10.31838/RCC/01.01.04
[21] Ariunaa, K., Tudevdagva, U., & Hussai, M. (2025). The need for chemical sustainability in advancing sustainable chemistry. Innovative Reviews in Engineering and Science, 2(2), 33-40. https://doi.org/10.31838/INES/02.02.05
[22] Husein, I. (2022). Investigation of the total entropy for carbon dioxide gas with a constant temperature condition. Journal of Artificial Intelligence in Fluid Dynamics, 1(1), 11–20.
[23] Sadulla, S. (2025). Next-generation mRNA vaccines: Immunological mechanisms and challenges in broad-spectrum viral protection. Frontiers in Life Sciences Research, 1(1), 31–37.
[24] KITANANT, T., CAIN, P. M., KAEWHANAM, K., KAEWHANAM, P., & PONGSIRI, A. (2025). The Development of Strategies Managements for the Community Enterprises in the Nakhon Chai Burin Province Cluster, Thailand. Quality-Access to Success, 26(205).