Optimum: Jurnal Ekonomi dan Pembangunan
Vol. 15, No. 1, March 2025, pp. 9-21
DOI:10.12928/optimum.v15i1.10397
ISSN 2613-9464

Blockchain acceptance and deployment: A catalyst for microeconomic stability with financial performance as a mediator

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ARTICLE INFO

Received : 15-04-2024
Revised : 22-10-2024
Accepted : 27-12-2024
Published : 27-01-2025

Keywords
Blockchain technology
Microeconomic stability
Financial performance
Regulatory environment

ABSTRACT

The study assesses blockchain technology acceptance and diffusion with its resultant impact on microeconomic stability, mediated by financial performance. It highlights blockchain's role in enhancing efficiency, transparency, and security, potentially increasing microeconomic stability. The questionnaires were administered to SME managers on the Indodax exchange platform, grounded in the Technology Acceptance Model (TAM) framework and Trade-off theory. Partial Least Squares Structural Equation Modeling (PLS-SEM) used for data analysis to establish the relationship among blockchain acceptance and deployment, financial performance, and microeconomic stability. The results indicated a significant positive consequence of blockchain acceptance and deployment on the financial performance of companies. Financial performance acted as the mediating variable between blockchain acceptance and deployment and microeconomic stability. Managerial implications show that commitment from top leadership, risk management, and stakeholder engagement are crucial for sustainable blockchain acceptance and deployment. This work elaborates on how blockchain technology can strengthen microeconomic stability and improve financial performance by providing practical guidance for organizations. However, it excludes considerations of operational costs, license fees, government regulations, cold chain management integration, demographic diversity, geographic expansion, alternative variables, sustainability, Bitcoin mining, longitudinal data collection, theoretical advantages for SMEs, supply chain efficiency, specific fintech subsectors, interoperability, scalability, macroeconomic variables, or ownership identity impacts. Despite these gaps, this research remains instrumental by providing foundational insights into the beneficial impacts of blockchain technology on financial performance and microeconomic stability, highlighting key areas for future investigation and guiding practice for current and potential adopters.

1. Introduction

Digital or virtual currencies, protected by cryptographic methods and built upon blockchain technology like Bitcoin and Ethereum, have ushered in revolutionary transformations within the global economic sphere (Shahzad et al., 2024). Particularly during the COVID-19 pandemic, the media, regulatory bodies, institutional and retail investors, and academics have all shown a great deal of interest in cryptocurrencies (Ozdurak et al., 2022). Al-Maskari et al (2024) belief that technology will induce profound shifts in people's social and economic lives, resulting in the emergence of new

employment opportunities while causing the obsolescence of existing ones. Blockchain stands out as an emerging technology with the potential to deliver transparency and decentralization across various supply chain nodes, effectively addressing disruptions and swiftly recovering through enhanced visibility (K. Shahzad et al., 2024). Blockchain Technology (BCT) It is an organizational capability that integrates all the supply chain assets and resources, enhancing activities such as product tracking, information sharing, and facilitating transparency in transactions (Al-Swidi et al., 2024). In an era characterized by technological advancement demanding rapid and secure transactions, blockchain emerges as a viable solution by eliminating the necessity for intermediary entities and enhancing the speed and security of transactions (Mbaidin et al., 2024). Layer two solutions, particularly the Lightning Network, represent a successful cryptographic layer constructed atop the Bitcoin blockchain. The primary objective of these solutions is to mitigate the associated implications by moving transaction processing off-chain while maintaining the security and consensus provided by the blockchain, thereby safeguarding its infrastructure. At the heart of the Lightning Network are payment channels, which enable swift and secure transactions among participants (Hasan et al., 2024).

The acceptance and deployment of blockchain technology has garnered increasing attention across various sectors, including finance, due to its potential to revolutionize traditional business processes. According to the Innovation Acceptance and Deployment Theory by Rogers (1962), the acceptance and implementation of innovation are shaped by five primary factors: relative benefit, compatibility, complexity, trialability, and observability. Blockchain technology offers decentralized and transparent transaction mechanisms that enhance security, efficiency, and trust in financial transactions. As businesses adopt blockchain technology, particularly in the context of financial performance, it becomes important to evaluate its broader implications for microeconomic stability. Shahzad et al (2024) emphasize from the study indicate that awareness of cryptocurrencies directly and significantly contributes to shaping their acceptance and implementation. Moreover, this positive correlation is mediated by factors that exemplify the acceptance of cryptocurrencies. The current advancement in decentralized paradigms has ushered in the era of blockchain technology by enabling secure collaboration amongst untrusted entities, thereby eliminating the need for trusted third parties (Hasan et al., 2024). Small and Medium Enterprises (SMEs) hold substantial importance in the economy, making notable contributions to employment, innovation, and overall economic growth (Sugiarto & Iskandar, 2023). Blockchain technology is a revolutionary invention that has the potential to completely change a number of industries because of its decentralized and immutable nature (Purwaningsih et al., 2024). Their ability to adopt and leverage emerging technologies like blockchain, along with effective financial performance practices, can influence microeconomic stability. Financial performance Theory provides a framework for understanding how sound financial decisions can improve business performance and stability, while the theory of SME Growth addresses factors influencing the growth and success of SMEs, including the acceptance and deployment of technology and effective financial performance.

Additionally, the microeconomic stability theory also plays a crucial role in this context. This theory explores the factors affecting economic stability at the individual, company, or market level. In this case, the Microeconomic Stability Theory will help understand how the acceptance and deployment of blockchain technology and financial performance practices among SMEs can affect microeconomic stability. Factors such as operational efficiency, risk reduction, and sustainable business growth will be key considerations in analyzing SMEs' contribution to overall microeconomic stability. (Lu et al., 2024) argue that the key factors to improve and encourage the success of blockchain acceptance and deployment are technological and organizational (Li et al., 2023). It is stated that producers should actively pursue blockchain technology development if relative costs are higher than true costs, or if relative costs are lower but true costs are higher, indicating the need for efficiency improvements and resource management. According to (Cui et al., 2024) research, acceptance and deployment of Bitcoin can be applied to all kinds of microenterprises. Though Bitcoin is one well-known use of blockchain technology, it's crucial to remember that, as their study shows, there are also a number of other potential advantages to blockchain acceptance and deployment in the pharmaceutical sector.

Hence, this research endeavors to explore the correlation between the adoption and implementation of blockchain technology, financial performance strategies, and microeconomic stability, drawing upon concepts derived from the Technology Acceptance Model for Innovation. Financial performance Theory, and Microeconomic Stability Theory. By examining these variables together, this study aims to uncover the dynamics shaping microeconomic stability in the evolving landscape of technology

and finance. Factors such as a lack of understanding or awareness of blockchain technology among microeconomic environments that hinder its acceptance and deployment can be understood through the concepts of complexity and relative advantage in the Technology Acceptance Model. Not all microeconomic environments have access or capacity to implement blockchain technology, primarily due to the costs and complexities associated with the technology, which also reflect the complexity factor in the theory. There might be hesitation among those who are not familiar with the differences between blockchain and cryptocurrency, particularly in light of Fantazzini (2023). According to their research, they looked at a dataset with more than 2000 cryptoassets and used the daily range to calculate the probability of termination in order to assess the credit risk of each. External factors such as regulatory changes or market uncertainties according to (van der Linden & Shirazi, 2023), Some participants in the financial services sector remain cautious and unwilling to take assets that are vague and have no clear legal standing. This resistance may have an impact on how financial performance techniques, microeconomic stability, and the acceptance and deployment of blockchain technology interact. Moreover, the Technology Acceptance Model's observability and compatibility concepts can be used to examine this dynamic.

According to Iqbal et al (2023), there is a greater risk of downside with cryptocurrencies due to their high volatility when compared to other traditional asset classes. However, the findings of the study by Ciaian et al (2024) show a significant correlation between investors' exposure to cryptocurrency investments and their attitudes toward the environment and society, implying that those who are interested in blockchain technology are also likely to engage in microenterprise ventures. The mediating variable, financial performance, has the potential to serve as a mediating factor in the relationship between the acceptance and deployment of blockchain technology and microeconomic stability, as well as between blockchain acceptance and deployment and microeconomic stability, which can be viewed from the trialability perspective in the theory. Other factors such as blockchain technology security or financial literacy levels among microeconomic actors can pose constraints in testing the relationships between these variables, which can also be explored through the concepts in the Technology Acceptance Model. Operational costs, license fees, government regulations, integration with cold chain management, demographic diversity, geographic expansion, and alternative variables like government support, technological design, sustainability, Bitcoin mining, longitudinal data collection, theoretical advantages for SMEs, supply chain efficiency, specific fintech subsectors, interoperability, scalability, macroeconomic variables, and ownership identity impacts are all excluded within the premises of this research; it is nevertheless very valuable.

The research has the following significant advantages because it was conducted in Denpasar, Bali, a vibrant and growing economic region within Indonesia. Being one of the major centers in Bali, Denpasar offers a unique setting to investigate the impact of blockchain technology due to its dynamic SME sector and growing digital involvement. This view localizes with practical insights into how adoption can affect financial performance and microeconomic stability in emerging markets with similar characteristics, hence offering relevant guidance to businesses operating in or expanding to comparable regions. This paper also fills the literature gaps by providing a better understanding of the real-world implications of blockchain technology in a particular geographical setting. It deepens theoretical frameworks in that it is shown how blockchain technology can mediate financial performance and influence microeconomic stability, thus adding depth to the discourse of blockchain's role in emerging markets. Further research on multiple factors not included in this study is needed, this paper points out, and therefore provides a pathway for future studies to bridge these gaps towards a better understanding of blockchain's greater implications. It provides important fundamental research and empirical recommendations, thus enriching the academic and practical debate related to blockchain technology and its impact on economic stability, since the study provides concrete evidence in Denpasar, Bali.

2. Literature Review

2.1. Technology Acceptance Model

Technology Acceptance Model (TAM) posits that the adoption of new technology is shaped by two primary factors: perceived usefulness (PU) and perceived ease of use (PEOU) (Noor et al., 2024). The decentralized and unchangeable ledger system of blockchain technology improves transaction efficiency, security, and transparency. A number of factors, including perceived benefits, ease of use, the regulatory environment, and network effects, influence the acceptance and deployment of

blockchain technology (Tapscott & Tapscott, 2016). Academics have been able to study a variety of systems in the last few decades, including social media tools, e-portfolio systems, green information technology, teleconferencing systems, and e-learning systems, thanks to the Technology Acceptance Model (TAM) (Nguyen et al., 2024). According to (Yang et al., 2021) in research studies, customers' intentions to continue using a technology are strongly influenced by their perceptions of its usefulness and ease of use. As a result, TAM is regarded as the ideal model for accomplishing research goals. Compared to alternative models, TAM is widely considered to be particularly parsimonious, predictive and robust (Nagy et al., 2024). The research from (Shwedeh, 2024) This highlights the significant role of policies and regulations in the acceptance and implementation of the metaverse, advocating for a comprehensive TAM framework that incorporates regulatory dynamics. Supported by a robust empirical foundation, the Technology Acceptance Model (TAM) provides a framework for comprehending and predicting technology acceptance behaviors (Alshehri, 2023). The Technology Acceptance Model (TAM) states that people's opinions about the utility and usability of information technology (IT) have an impact on their decisions about adopting it. The term "perceived usefulness" describes how one feels about an IT system's potential advantages or utility. On the other hand, perceived ease of use refers to the mental effort needed by a potential user to become familiar with and operate the new technology. TAM is widely used in many different fields, such as network behavior, e-commerce, mobile business, enterprise resource planning (ERP) systems, and education (Yang et al., 2021).

TAM provides a valuable framework for examining the acceptance and integration of blockchain technology and its potential ramifications for economic stability, financial operations, and small and medium-sized enterprises (SMEs). Employing TAM to study blockchain adoption allows researchers to evaluate how stakeholders' perceptions of usefulness and ease of use shape their choices to embrace blockchain solutions. The decentralized and immutable ledger system offered by blockchain improves transaction efficiency, security, and transparency, thereby potentially influencing financial operations and overall economic stability. Additionally, factors such as regulatory environment and network effects, as highlighted by (Tapscott & Tapscott, 2016), play crucial roles in shaping the acceptance and deployment landscape of blockchain technology. By integrating regulatory dynamics into the TAM framework, as advocated by (Shwedeh, 2024), researchers can gain deeper insights into the multifaceted influences on blockchain acceptance and deployment and its implications for economic stability, financial performance practices, and the growth of SMEs. Therefore, leveraging TAM in the study of blockchain acceptance and deployment can provide valuable insights for policymakers, businesses, and researchers aiming to navigate and harness the potential of this transformative technology.

The acceptance and deployment of blockchain technology has the potential to enhance efficiency, transparency, and security in business processes. Blockchain technology enables systematically organized, secure, and widely distributed transactions without the involvement of third parties, which can reduce operational costs and increase stakeholder trust. In the microeconomic context, the acceptance and deployment of blockchain technology can strengthen data integrity, improve transaction efficiency, and mitigate the risk of fraud or data manipulation, thereby contributing to economic stability. Previous research has shown that the acceptance and deployment of blockchain technology has the potential to enhance economic stability. For instance, research by (Carlson, 2018) highlights the ability of blockchain technology to create a secure and decentralized payment system, reducing dependence on central financial institutions and mitigating the risk of financial system failures. Additionally, studies by (Swan, 2017) found that organizations implementing blockchain technology in their supply chains experienced improvements in transparency, efficiency, and accountability, ultimately contributes to economic stability and emphasizes the transformative potential of blockchain technology by highlighting its revolutionary impact on traditional business processes. Additionally, we could discuss real-world examples of how blockchain acceptance and deployment has led to tangible benefits for businesses and industries, showcasing its practical applications and potential for widespread acceptance and deployment. Furthermore, discussing future prospects and emerging trends in blockchain technology could add a forward-looking perspective to the text, illustrating its continued relevance and importance in shaping the future of business and economics.

H1: The acceptance and deployment of blockchain technology contributes positively to microeconomic stability

Businesses can lower administrative expenses, lower the risk of fraud, and speed up transaction times by storing and transferring financial data on blockchain, all of which improve financial performance. Blockchain acceptance and deployment has the potential to completely transform how businesses optimize and manage their financial resources. Blockchain contributes to increased financial performance efficiency, which can impact a company's financial performance by offering quick, safe, and decentralized transaction mechanisms. Acceptance and deployment of blockchain technology can bring more secure, transparent, and efficient processes to financial performance practices. Previous research has consistently demonstrated that the acceptance and deployment of blockchain technology, as evidenced by the study conducted by (Xie et al., 2023), which explored the impact of blockchain acceptance and deployment on financial performance in fintech companies, leads to significant improvements in financial performance. This is attributed to the inherent characteristics of blockchain technology, such as transparency, immutability, and decentralization, which enhance operational efficiency, reduce transaction costs, and mitigate risks, consequently resulting in increased revenue, reduced costs, and heightened competitiveness.

H2: The acceptance and deployment of blockchain technology positively influences financial performance

Effective financial performance practices have the potential to enhance microeconomic stability by managing financial risks, optimizing capital utilization, and ensuring adequate liquidity. These practices include cash flow management, risk management, credit analysis, and appropriate financing strategies. By implementing sound financial performance practices, companies can reduce the likelihood of bankruptcy, navigate economic uncertainties, and sustain long-term growth. Previous research has indicated that effective financial performance practices can contribute to microeconomic stability. For example, a study by Ongore & Kusa (2013) found that companies implementing good financial performance practices tend to exhibit better and more stable financial performance.

H3: Financial performance practices have a constructive consequence on microeconomic stability

2.1. Trade Off Theory

The trade-off theory posits that businesses must weigh the use of debt and equity to finance investments, considering the trade-off between the benefits and financial risks involved. This theory also encompasses considerations of how effective financial management can influence a company's performance, which is relevant in the context of utilizing blockchain to enhance financial management and financial performance. The trade-off theory advocates for companies to achieve optimal value, businesses aim to strike a balance between debt and equity financing (Amidu, 2007). Alignment with the research title focusing on the impact of blockchain acceptance and deployment on microeconomic stability with financial performance as a mediating variable, the trade-off theory emphasizes the importance of balancing debt and equity in financial decision-making. Companies adopting blockchain technology may need to carefully consider how this affects their capital structure decisions, ensuring an optimal mix of debt and equity to maximize financial stability and performance. It is noted that profitable companies tend to rely less on debt than lower-profit companies, and high-growth companies exhibit higher debt-to-equity ratios (Zeitun & Tian, 2007). Moreover, when a company incurs debt, the anticipated tax benefits are expected to surpass the expenses stemming from the risk of default (Briozzo *et al.*, 2016). This underscores the significance of the trade-off theory in guiding companies through the complexities of financing decisions, especially in the context of technological innovation like blockchain acceptance and deployment.

In summary, the trade-off theory provides valuable insights into how companies can navigate the trade-offs between debt and equity financing to optimize their value while considering the implications of blockchain acceptance and deployment on financial management. By balancing debt and equity effectively, companies can enhance their financial performance and contribute to microeconomic stability. Therefore, understanding and applying the principles of the trade-off theory within the context of blockchain acceptance and deployment is crucial for companies seeking to leverage this technology for improved financial outcomes. The acceptance and deployment of blockchain technology has emerged as a significant phenomenon in various sectors, offering potential benefits such as increased transparency, enhanced security, and improved efficiency in transaction processes. As companies and industries explore the integration of blockchain into their

operations, there is growing interest in understanding its impact on financial performance and, subsequently, on broader economic stability at the microeconomic level. Moreover, it is essential to recognize that financial performance can serve as a potential mediator in this relationship. Improved financial performance resulting from the acceptance and deployment of blockchain technology may play a pivotal role in influencing overall economic stability. For instance, enhanced efficiency, reduced operational costs, and increased revenue associated with blockchain acceptance and deployment can positively impact a company's financial performance. This, in turn, can lead to greater investment opportunities, job creation, and overall economic growth within local communities, thereby contributing to microeconomic stability. In essence, by considering financial performance as a mediating factor, we can better understand how the acceptance and deployment of blockchain technology influences broader economic dynamics at the microeconomic level.

H4: Financial performance influence the relationship between acceptance and deployment of blockchain technology and microeconomic stability

3. Method

The research is conducted within the framework of the Indodax exchange platform. When selecting respondents from the Indodax platform, particular emphasis is placed on active members who demonstrate clear investment objectives and possess over a year of experience in managing Small and Medium-sized Enterprises (SMEs). This criterion ensures that the respondents possess a comprehensive understanding of blockchain technology's utilization within the realm of cryptocurrency trading and hold relevant experience in SME management. The primary research methodology employed is the distribution of a questionnaire among all eligible participants according to the specified criteria. This questionnaire is meticulously designed to capture insights into respondents' perceptions, experiences, and behaviors regarding the acceptance and deployment and utilization of blockchain technology in their investment activities and SME management practices (Javaid et al., 2022).

Furthermore, the analysis of the collected data is conducted utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) version 4. This analytical approach facilitates various assessments, including reliability and validity tests to ensure the robustness of the data, examination of goodness of fit metrics to assess model adequacy, direct effects analysis to evaluate relationships between variables, and hypothesis testing to validate research hypotheses and draw meaningful conclusions from the findings. The equation based on Al-Dmour et al (2024) as follows:

$$Y = (\beta_2\beta_1 + \beta_3)X + \beta_2\zeta_1 + \zeta_3 \quad (1)$$

Where $\beta_2\beta_1$ is the indirect effect of X on Y through M, β_3 is the direct effect of X on Y, $\beta_2\zeta_1$ is the error component that arises from the relationship between X and M affecting Y and ζ_3 is the error component of the direct relationship between X and Y. For the measurement to be analyzed in Partial Least Squares (PLS), the questions for blockchain acceptance and deployment aim to evaluate respondents' level of knowledge, attitude, and readiness toward adopting blockchain technology, as well as identifying potential barriers and benefits that may influence the acceptance of this technology. Regarding financial performance, the questions aim to measure and understand respondents' perceptions of their company's financial performance in various aspects, including profitability, efficiency in managing cash flows, debt management, and net profit growth. The data obtained from these questions can provide valuable insights into the financial health of companies and their potential impact on decision-making related to blockchain acceptance and deployment and microeconomic stability. For economic stability, the questions aim to measure and understand respondents' perceptions of microeconomic stability in their region in various aspects, including market conditions, inflation rates, purchasing power of the community, unemployment rates, and household financial conditions. The data obtained from these questions can provide valuable insights into the local economic conditions and their potential impact on decision-making related to blockchain acceptance and deployment and overall microeconomic stability (Abbasi et al., 2024).

4. Results and Discussion

The specified measurement model must be assessed for reliability and validity. The model's reliability can be evaluated and the composite reliability (aggregation of the indicators under a main

variable) it should be more than 0.6. The tools to assess reliability is Average Variance Extracted (AVE) values for each variable in the output above are greater than 0.5 (Dash & Paul, 2021). Table 1 shows AVE has a greater value than 0.5 means that all indicators legitimately converge to form their corresponding variables. Furthermore, values for Cronbach's Alpha and CR were found, both of which were greater than 0.6 for every variable. The study's variables and items all satisfy the validity and reliability requirements for measuring the variables.

Table 1. Result of Reliability and Validity

	Croanbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average Variance Extracted (AVE)
Acceptance and deployment of blockchain	0.960	0.683	0.517	0.865
Financial performance	0.877	0.880	0.911	0.671
Microeconomic Stability	0.924	0.929	0.944	0.772

Source: data processed

Goodness of fit estimates the proportion of the variance provided the covariance of the population and it ranges from 0-1 (Hair et al., 2017). Table 2 shows the R-squared value for the combined influence of blockchain acceptance and deployment on financial performance is 0.467, with an adjusted R-squared of 0.461. This suggests that approximately 46.1% of the variance in financial performance can be explained by the exogenous factors of blockchain acceptance and deployment. With an adjusted R-squared exceeding 33%, the impact of blockchain acceptance and deployment on financial performance is deemed significant. Similarly, the R-squared value for the concurrent impact of blockchain acceptance and deployment on microeconomic stability is 0.386, with an adjusted R-squared of 0.373. This indicates that around 37.3% of the variance in microeconomic stability can be attributed to the exogenous factors of blockchain acceptance and deployment. Despite the adjusted R-squared being below 33%, the influence of blockchain acceptance and deployment on microeconomic stability is still regarded as substantial.

Table 2. Goodness of Fit

	R-Squared	Adjusted R-Squared
Financial Performance	0.467	0.461
Microeconomic Stability	0.386	0.373

Source: data processed

Table 3 shows the direct effect of acceptance and deployment of blockchain on financial performance is 0.683, meaning that if acceptance and deployment of blockchain increases by one unit, financial performance can increase by 68.3%. The direct effect of acceptance and deployment of blockchain on stability microeconomy is 0.517, signifying that if acceptance and deployment of blockchain increases by one unit, stability microeconomy can increase by 51.7%. The direct effect of financial performance on stability microeconomy is 0.846, indicating that if financial performance increases by one unit, stability microeconomy can increase by 84.6%. Table 3 shows that all direct effect is positive effect.

Table 3. Direct Effect Analysis

	Acceptance and deployment of blockchain	Financial performance	Microeconomic Stability
Acceptance and deployment of blockchain		0.683	0.517
Financial performance			0.846
Microeconomic Stability			

Source: data processed

Table 4 shows the indirect effect of acceptance and deployment of blockchain on stability microeconomy through financial performance is 0.578, indicating that if acceptance and deployment of blockchain increases by one unit, stability microeconomy can increase indirectly through financial performance by 57.8%.

Table 4. Indirect Effect Analysis

	Acceptance and deployment of blockchain	Financial performance	Microeconomic Stability
Acceptance and deployment of blockchain			0.578
Financial performance			
Microeconomic Stability			

Source: data processed

Table 5 shows that acceptance and deployment of blockchain has a positive and significant influence on financial performance with an effect of 0.683. Thus, an increase in acceptance and deployment of blockchain will enhance financial performance, and vice versa. Acceptance and deployment of blockchain has a positive and significant influence, on stability microeconomy with an effect of 0.517. Thus, an increase in acceptance and deployment of blockchain will enhance stability microeconomy, and vice versa and financial performance has a positive and significant influence on stability microeconomy with an effect of 0.846. Therefore, an increase in financial performance will enhance stability microeconomy, and vice versa. Figure 1 shows all the value of probability on direct and indirect effect analysis.

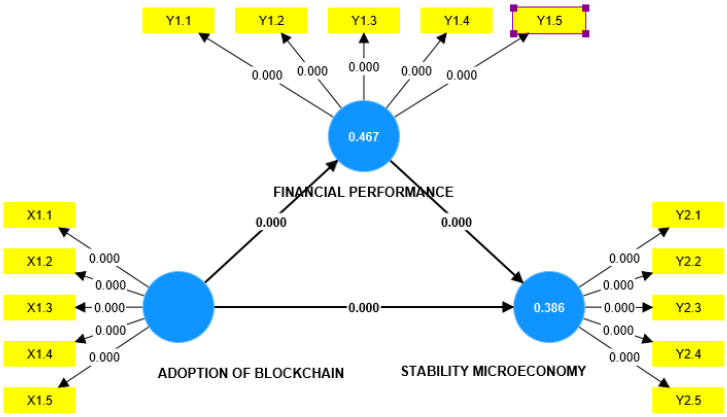

Figure 1. Structure Equation Model

The acceptance and deployment of blockchain technology contributes positively to microeconomic stability through efficiency gains that increased efficiency from the automation of various processes and reduced time taken for transactions due to blockchain technology. Efficiency leads to cost efficiency and proper distribution of resources, which could stabilize economic conditions at the micro-level and transparency and security, less fraud and corruption increase the confidence in markets and, consequently, reduce instability. It may, therefore, imply that firms will have to incorporate lower risk premiums and hence a cost of borrowing. opportunity trade-offs in blockchain technology, such as initial investment, setup, training, and system integration costs, outweigh long-term benefits like lessening of transaction costs and a reduced requirement for intermediaries. Over time, these cost savings can mean enhanced microeconomic stability through the resilience and competitiveness of businesses. The literature available on previous studies by Carlson (2018), Swan (2017) and Ariani et al (2024) has pointed out that blockchain is able to enhance transparency and accountability within business processes. Improvement in this can result in a more stable economic environment because of reduced uncertainty and transaction costs. Another direct impact on acceptance and deployment of blockchain to microeconomic stability through payment system especially to SME and lower transaction cost likely to perform better financially (Sadiq et al., 2023).

Table 5. Regression Based on Structural Equational Model

	Original Sample	Sample Mean	Std Dev	T-statistics	P Value
Acceptance and deployment of blockchain → Financial performance	0.683	0.685	0.051	13.5	0.000
Acceptance and deployment of blockchain → Microeconomic Stability	0.517	-0.521	0.108	4.773	0.000
Financial performance → Microeconomic Stability	0.846	0.845	0.108	7.859	0.000

Source: data processed

Table 5 shows the acceptance and deployment of blockchain technology positively influences financial performance through operational efficiency that optimizing financial operations from the perspective of reducing transaction costs, improving speed, and improvise accuracy. Improved operational efficiency may, in turn, lead to better profit margins and financial performance. Risk Mitigation: Blockchain technology is intrinsically secure, hence it reduces any financial risk spurred by frauds and errors, hence reducing financial losses and increasing profitability and trade-off considerations by setting up the technology and training costs related to the adoption of blockchain are balanced off by long-term financial gains. Some of the accrued benefits that improve financial performance include enhanced efficiency in transactions and a reduction in financial risks. Xie et al (2023) demonstrated that blockchain technology achieved an improved financial performance resulting from the reduced operation costs and less risk. Consequent to this improved performance in finances, it also resulted in stronger growth and stability of business.

Financial performance practices have a constructive consequence on microeconomic stability through capital utilization, good financial performance practices within a firm that optimize resource use and ensure sustainability from limited resources in the form of prudent capital management and mitigation of risk will give effect to general microeconomic stability benchmarks. In other words, this stability translates into more predictable and stable economic conditions and liquidity management by using of good financial practices will ensure liquidity, which will allow businesses to weather economic waves by maintaining operations and hence provide a common microeconomic stability. Ongore & Kusa (2013) stated sound financial practices leads to enhanced financial performance. Healthy financial performance supports economic soundness. An economically sound financial performance reduces economic turmoil and enhances market confidence.

Table 6. Total Indirect Effect

	Original sample	Sample mean	Std Dev	T-Statistics	P Value
Acceptance and deployment of blockchain → Microeconomic Stability	0.578	0.582	0.102	5.655	0.000

Source: data processed

Table 6 shows the acceptance and deployment of blockchain technology demonstrates a substantial direct effect on microeconomic stability, which becomes even more pronounced when mediated by financial performance. Indicates that financial performance plays a mediating role between blockchain acceptance and deployment and microeconomics, as substantiated by the outcomes of data analysis or testing. Financial performance influences the relationship between acceptance and deployment of blockchain technology and microeconomic stability through mediating role that blockchain adoption

could also mediate the relationship between blockchain adoption and microeconomic stability through increased financial performance, which results from enhanced operational efficiency and reduced risks. With improved financial performance, businesses are better contributors to microeconomic stability and application of trade-off theory that improved financial performance from blockchain adoption results in financial stability that can translate into the enhancement of the general economic stability. Better financial metrics by the business characterize the microeconomic environment.

5. Conclusion

This research remains significant by providing foundational insights into the beneficial impacts of blockchain technology on financial performance and microeconomic stability, highlighting key areas for future investigation, and guiding practice for current and potential adopters. It explores how blockchain technology can revolutionize financial performance and microeconomic stability, emphasizing benefits such as transactional efficiency, transparency, and security, which are essential for thriving in the digital era. This research has outlined how blockchain may enable a more effective, transparent economic ecosystem, albeit not covering operational costs, regulatory issues, and problems of scalability. This research therefore avails important evidence to prepare stakeholders for making informed decisions on adopting and implementing blockchain technologies for a more resilient and stable economic framework.

The acceptance and conduct of blockchain technology can add to the attainment of improvements in financial performance. Through the ability to enhance business operating efficiency and lower transaction costs, blockchain technology further improves economic efficiency and competitiveness. These improvements in the financial performance, which in turn cause increased microeconomic stability through economic growth, will breed new investment opportunities. Although most often initial investments in blockchain technology are high, long-term benefits include transparency enhancement and fraud reduction, outweighing the costs and hence making a blockchain indeed valuable to an organization.

This research has vast implications for practitioners and policymakers. These are conclusions to which business practitioners can get. Transactions on which strategic investments are allowed, in technologies like blockchain, may create long-run financial benefits and help in economic strengthening. Companies should leverage the use of blockchain solutions in maximizing these benefits through stakeholder engagement, effective risk management, and collaborative partnerships within their operations. Policymakers, on the other hand, can use insights from this study to develop supportive regulatory frameworks and standards that foster blockchain adoption while at the same time addressing possible challenges. The main goal is to create an environment favorable for blockchain innovations that provide use cases to full potential for economic resilience and sustainable development.

Acknowledgment

We express our gratitude to the anonymous reviewers for their thorough study of our work and their numerous enlightening remarks and recommendations.

Declarations

Author contribution	:	This paper is research written by Komang Widhya Sedana Putra P
Funding statement	:	No funding was received for this study.
Conflict of interest	:	The authors have disclosed that there are no conflicts of interest to declare.
Additional information	:	There is no further information accessible regarding this paper.

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