

TAX COLLECTION DIGITALIZATION, BLOCKCHAIN TECHNOLOGY, AND FOREIGN EXCHANGE MARKET STABILITY: IMPLICATIONS FOR MODERN TAX POLICY

Imam Mualim^{1*}, Andaru Dwi Drestanta², Muhammad Ali Maskur³

*Corresponding author; Email: imammualim58@gmail.com

^{1,2,3}Universitas Tulungagung, Indonesia

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Abstract

The rapid advancement of digital technologies has fundamentally transformed tax administration and global financial systems, creating new opportunities to enhance transparency, efficiency, and regulatory compliance. Despite the growing adoption of digital taxation platforms, limited empirical attention has been given to the integrated relationship between tax digitalization, blockchain technology, foreign exchange (forex) market dynamics, and the behavioral financial perspectives presented in *The Psychology of Money*. This study aims to examine the influence of tax digitalization, supported by blockchain technology and behavioral financial literacy, on tax policy development, forex market dynamics, and digital financial governance. A quantitative research design was employed using secondary data obtained from tax authority reports, Bloomberg foreign exchange statistics, macroeconomic indicators, and literature related to *The Psychology of Money*. Complementary primary data were collected through questionnaire surveys measuring perceptions of digital tax adoption and blockchain integration. The data were analyzed using descriptive statistics, correlation analysis, multiple linear regression, and Vector Autoregression (VAR) to investigate both cross-sectional and dynamic relationships among the variables. The findings indicate that tax digitalization significantly improves administrative efficiency, transparency, and tax compliance, while blockchain technology strengthens transaction security, accountability, and fraud prevention within tax administration. Furthermore, monetary and fiscal policy adjustments associated with digital tax reforms influence forex market stability and contribute to the growing adoption of digital assets. The study also highlights that behavioral financial literacy, as conceptualized in *The Psychology of Money*, supports more adaptive financial decision-making in response to digital economic transformation. These findings provide practical implications for policymakers in designing integrated digital tax systems and contribute theoretically to the literature on digital taxation, blockchain governance, and behavioral finance in the era of financial digitalization.

Keywords: tax digitalization; blockchain technology; tax policy; foreign exchange market; behavioral finance; The Psychology of Money.



By Authors

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INTRODUCTION

The rapid advancement of digital technology has profoundly transformed various sectors, including taxation and the global financial system. One of the most significant developments is the digitalization of tax collection, which involves the integration of digital technologies into government tax administration and revenue collection processes. Within the perspective presented in *The Psychology of Money*, this transformation reflects a broader shift from traditional cash-based financial systems toward digitally integrated financial ecosystems that promote greater efficiency, transparency, and accessibility. Such a transition not only reshapes national tax administration but also influences broader economic dimensions, including tax policy formulation, foreign exchange (forex) market stability, and the adoption of emerging technologies such as blockchain within public financial management.

The growing importance of tax collection digitalization is closely associated with increasing demands for more efficient, transparent, and accountable tax administration systems. Governments worldwide are continuously seeking innovative approaches to improve tax compliance, reduce administrative costs, and minimize tax evasion through the implementation of digital technologies. Digital tax systems facilitate faster transaction processing, improve the accuracy of tax reporting, and strengthen government capacity to monitor tax obligations in real time. Consequently, the digital transformation of tax administration has become a strategic policy instrument for enhancing fiscal sustainability and strengthening public trust in government institutions.

Beyond improving tax administration, the digitalization of tax collection has broader implications for national and international financial systems. Changes in tax policies supported by digital technologies may influence foreign exchange market dynamics by affecting investor confidence, cross-border capital flows, and macroeconomic stability. At the same time, blockchain technology has emerged as a promising innovation capable of enhancing transparency, security, and data integrity within tax administration systems. By utilizing decentralized ledger technology, blockchain offers opportunities to reduce tax fraud, improve auditability, and strengthen public accountability through immutable transaction records.

Despite the growing adoption of digital technologies in taxation, empirical evidence regarding the combined influence of tax collection digitalization on tax policy, blockchain adoption, and foreign exchange market stability remains relatively limited. Previous studies have generally examined these issues independently, with limited attention given to their interconnected relationships within the broader context

of digital fiscal transformation. This research gap highlights the need for a more comprehensive analysis that integrates technological innovation, taxation policy, and financial market stability into a unified analytical framework.

Accordingly, this study aims to quantitatively examine the impact of tax collection digitalization on tax policy, foreign exchange market dynamics, and the adoption of blockchain technology. Specifically, the study is based on three research propositions. First, tax collection digitalization is expected to improve the efficiency of tax administration and reduce tax evasion, thereby strengthening national tax policy. Second, digital tax administration is anticipated to influence foreign exchange market stability by enhancing market transparency while simultaneously creating potential uncertainties associated with rapid fiscal policy adjustments. Third, the digitalization of tax collection is expected to accelerate blockchain adoption as a technological solution for improving transparency, security, and integrity in tax administration.

To achieve these objectives, this study employs a quantitative research approach utilizing survey data, statistical analysis, and econometric modeling. Through these analytical techniques, the study seeks to provide empirical evidence regarding the influence of tax collection digitalization on contemporary taxation systems and the broader global financial environment. The findings are expected to contribute to the literature on digital taxation and financial technology while providing practical insights for policymakers in designing adaptive tax policies capable of responding to the challenges and opportunities of digital transformation in the modern economy.

LITERATURE REVIEW

Tax Collection Digitalization and Blockchain Technology

Tax collection digitalization refers to the integration of digital technologies into tax administration to improve the efficiency, speed, accuracy, and transparency of tax collection processes. This transformation encompasses the implementation of digital payment systems, the utilization of big data analytics for monitoring taxpayers' compliance, and the integration of taxation systems with digital platforms. Digital technologies enable governments to automate administrative procedures, enhance data accuracy, and facilitate real-time communication between taxpayers and tax authorities. Consequently, digital tax administration contributes to reducing administrative costs, minimizing human error, and improving the overall effectiveness of public revenue management (Amelia et al., 2024).

Beyond operational efficiency, tax digitalization represents a strategic component of fiscal modernization. A technology-driven taxation system enables governments to strengthen tax compliance, improve revenue collection, and support evidence-based fiscal policymaking through the availability of reliable and integrated financial data. Furthermore, digital tax administration enhances public accessibility by simplifying tax payment procedures and providing more transparent public services, thereby promoting greater taxpayer trust and voluntary compliance.

The effectiveness of digital tax administration is also supported by the financial sector, particularly banking institutions. Banks function as financial intermediaries that channel funds between surplus and deficit units while facilitating payment transactions across the economy. As trusted financial institutions, banks provide essential infrastructure that enables secure and efficient digital payment systems, including those used for tax collection. Public confidence in banking institutions therefore plays a significant role in supporting the successful implementation of digital taxation systems and broader financial digitalization initiatives (Gesah et al., 2022).

One of the most transformative technologies supporting digital tax administration is blockchain technology. Blockchain is a decentralized distributed ledger system that records transactions securely, transparently, and immutably without requiring centralized third-party verification. Each transaction is permanently recorded within a cryptographically secured digital ledger, making data manipulation extremely difficult and enhancing the integrity of financial records.

Within tax administration, blockchain technology offers substantial opportunities to improve transparency, accountability, and operational efficiency. Tax transactions can be recorded automatically within immutable digital ledgers, allowing tax authorities to verify transactions more accurately while reducing opportunities for tax fraud, data manipulation, and revenue leakage. Blockchain also strengthens auditability by providing transparent and traceable transaction histories that facilitate regulatory oversight and compliance monitoring. According to Nakamoto, blockchain provides an innovative solution to long-standing issues of trust and transparency within financial systems, making the technology particularly relevant for modern tax administration and public financial governance (Nanda Sari & Gelar, 2024).

The integration of blockchain technology with digital tax collection therefore represents a significant institutional innovation capable of supporting more transparent, accountable, and efficient fiscal governance while improving the credibility of tax administration systems.

Tax Policy and the Foreign Exchange Market

Tax policy constitutes one of the principal instruments of fiscal policy through which governments regulate economic activity, generate public revenue, and promote macroeconomic stability. Changes in taxation policies may influence investment decisions, international capital movements, and business confidence, thereby affecting the performance and stability of foreign exchange (forex) markets.

Efficient and transparent tax policies contribute to greater investor confidence by reducing regulatory uncertainty and improving the predictability of the fiscal environment. Increased confidence among domestic and international investors may encourage capital inflows, strengthen currency stability, and reduce volatility within foreign exchange markets. Conversely, inconsistent or frequently changing tax regulations may generate uncertainty that influences investment behavior, cross-border financial transactions, and exchange rate fluctuations.

According to Neumark (2019), effective tax reforms contribute to the establishment of a stable economic environment capable of supporting sustainable economic growth and improving foreign exchange market performance (Pamungkas, 2023). Consequently, the digitalization of tax collection should not be viewed solely as an administrative reform but also as a strategic fiscal policy instrument with broader implications for macroeconomic stability and international financial markets.

Money Digitalization and Cryptocurrency

The rapid advancement of digital financial technologies has transformed the concept of money and payment systems worldwide. The emergence of digital currencies and cryptocurrencies has fundamentally altered the manner in which individuals, businesses, and governments conduct financial transactions. Compared with conventional payment systems, cryptocurrencies such as Bitcoin and Ethereum offer faster transaction processing, lower transaction costs, and decentralized payment mechanisms that operate independently of traditional financial intermediaries. Nevertheless, these innovations also introduce significant regulatory, legal, and supervisory challenges, particularly with respect to taxation, anti-money laundering policies, and financial stability (Shahzad et al., 2024).

Within the taxation context, the increasing adoption of cryptocurrencies presents both opportunities and challenges. On the one hand, blockchain-based digital assets have the potential to improve transaction transparency through distributed ledger technology. On the other hand, the decentralized nature of cryptocurrencies complicates tax administration by making transaction monitoring, taxpayer identification, and taxable income verification more challenging. These characteristics require governments to develop adaptive regulatory frameworks capable of balancing technological innovation with effective fiscal oversight.

Cryptocurrency has increasingly emerged as an alternative medium of exchange due to its high level of security, transparent transaction mechanisms, and relatively lower transaction costs compared with conventional financial systems (Meliza & Sadalia, 2021). Consequently, governments must establish comprehensive legal and regulatory frameworks governing cryptocurrency transactions, including taxation policies, reporting requirements, and compliance mechanisms. Such regulatory developments are essential for ensuring that the expansion of digital financial assets contributes positively to fiscal sustainability while maintaining financial market integrity and supporting the broader objectives of digital economic governance.

RESEARCH METHOD

This study adopts a quantitative research approach to examine the relationship between the financial concepts presented in *The Psychology of Money* and tax policy, foreign exchange (forex) market volatility, and the adoption of blockchain technology within the context of tax collection digitalization. A quantitative approach was selected because it enables the systematic measurement of relationships among variables and

provides empirical evidence regarding the influence of financial literacy and digital transformation on taxation and financial systems.

The independent variable in this study is the conceptual influence of The Psychology of Money, which encourages the adoption of digital technologies in tax policy, foreign exchange transactions, and blockchain-based systems. Meanwhile, the dependent variables consist of digital tax policy, foreign exchange market fluctuations, and the implementation of blockchain technology in tax collection. This conceptual framework is intended to examine how financial literacy and behavioral finance perspectives may contribute to the modernization of taxation and financial governance in the digital era.

The study utilizes secondary data obtained from various authoritative sources, including annual reports issued by tax authorities, foreign exchange market statistics provided by internationally recognized financial information providers such as Bloomberg, and academic references related to The Psychology of Money. To complement the documentary evidence, questionnaire surveys were administered to measure public acceptance of tax digitalization and the integration of blockchain technology into tax administration systems.

The collected data were analyzed using several quantitative techniques. First, descriptive statistical analysis was employed to identify the characteristics and distribution of the observed variables and to describe emerging patterns related to tax digitalization, blockchain adoption, and foreign exchange market performance. Second, correlation analysis was conducted to determine the strength and direction of the relationships among the research variables. Third, multiple linear regression analysis was applied to examine the simultaneous influence of The Psychology of Money on digital tax policy, foreign exchange market performance, and blockchain technology adoption.

Furthermore, to analyze time-series data, the study employs the Vector Autoregression (VAR) model to capture the dynamic interactions among tax digitalization, foreign exchange market movements, and blockchain implementation over time. The VAR model enables the examination of reciprocal relationships among these variables without imposing restrictive causal assumptions, thereby providing a more comprehensive understanding of their short-run and long-run dynamics.

The findings are expected to provide comprehensive insights into the impact of tax collection digitalization, supported by the financial perspectives presented in The Psychology of Money and the adoption of blockchain technology, on tax policy, foreign exchange market volatility, and technological development within the taxation sector in 2025. This study is also expected to contribute to the growing literature on digital taxation, financial technology, and public policy by providing empirical evidence that may assist policymakers in designing adaptive and sustainable tax systems in response to the ongoing digital transformation of the global economy.

Figure 1. Commodity Growth

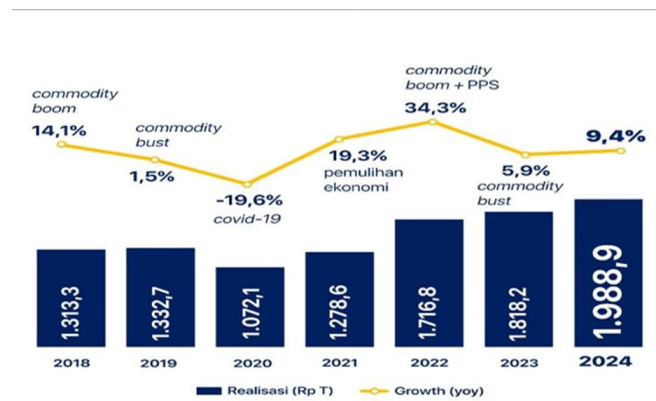


Figure 1 presents Indonesia's economic and commodity growth from 2018 to 2024. The data indicate that commodity growth reached 14.1% in 2018. However, in 2019, growth declined significantly to 1.5%, primarily due to weakening commodity prices and the early economic disruptions associated with the COVID-19 pandemic. The economic downturn intensified in 2020, with growth contracting to –19.6%, reflecting the severe impact of the global health crisis on economic activities.

A strong economic recovery was observed in 2021, when commodity growth rebounded to 19.3%. The highest growth was recorded in 2022 at 34.3%, largely driven by the global commodity boom and rising energy prices. Subsequently, growth moderated to 5.9% in 2023 following the decline in commodity prices, before stabilizing at 9.4% in 2024. These fluctuations demonstrate the close relationship between commodity market performance and Indonesia's macroeconomic conditions, highlighting the importance of strengthening fiscal resilience through effective tax administration and sustainable public revenue management.

To support fiscal modernization, the Directorate General of Taxes (DJP) introduced Coretax in 2025 as Indonesia's integrated digital tax administration system. Coretax was developed to improve the efficiency, accuracy, and convenience of tax administration by providing both individual and corporate taxpayers with a modern digital platform for fulfilling their tax obligations. The system facilitates tax reporting, electronic payment processing, and access to various administrative services that previously relied on manual procedures and required longer processing times.

The implementation of Coretax represents a significant milestone in Indonesia's digital tax transformation strategy. By integrating tax administration into a comprehensive digital ecosystem, the system is expected to improve administrative efficiency, strengthen tax compliance, enhance data accuracy, and increase transparency in public revenue management. Furthermore, Coretax reflects the government's commitment to establishing a modern taxation system capable of supporting sustainable fiscal governance while responding to the challenges of digital economic development.

Table 1. Dollar price in rupiah

Tanggal	Terakhir	Pembukaan	Tertinggi
03/01/2025	16.185,0	16.225,0	16.245,0
02/01/2025	16.190,0	16.200,0	16.262,5
01/01/2025	16.090,0	16.090,0	16.090,0
31/12/2024	16.090,0	16.090,0	16.172,5
30/12/2024	16.130,0	16.175,0	16.195,0
27/12/2024	16.230,0	16.207,5	16.260,0
26/12/2024	16.185,0	16.185,0	16.185,0
25/12/2024	16.185,0	16.185,0	16.185,0
24/12/2024	16.185,0	16.155,0	16.220,0
23/12/2024	16.170,0	16.182,5	16.197,5
20/12/2024	16.190,0	16.315,0	16.322,5

Source: Processed primary data, 2024

Table 1 presents the historical movement of the United States Dollar to Indonesian Rupiah (USD/IDR) exchange rate during the final trading period of 2024. The data indicate daily exchange rate fluctuations, with the lowest value recorded at IDR 16,090 per U.S. dollar and the highest value reaching IDR 16,322.5 per U.S. dollar. These historical exchange rate data were obtained and published by Investing.com.

Based on the observed data, the USD/IDR exchange rate exhibited short-term fluctuations without establishing a clear upward or downward trend throughout the observation period. Exchange rate movements were influenced by various macroeconomic factors, including global economic conditions, central bank monetary policies, inflation expectations, international capital flows, and overall market sentiment. Consequently, exchange rate information serves as an important indicator for traders, investors, and policymakers in evaluating market conditions and forecasting future currency movements.

From a macroeconomic perspective, exchange rate stability plays a crucial role in maintaining overall economic stability. Exchange rate volatility directly affects inflation, interest rates, international trade competitiveness, and investment decisions. Therefore, maintaining a stable macroeconomic environment is essential for supporting sustainable economic growth and ensuring the effectiveness of fiscal and monetary policies. The implementation of digital taxation policies is expected to contribute indirectly to macroeconomic stability by improving fiscal transparency, increasing government revenue, and strengthening public confidence in fiscal management.

In addition to macroeconomic considerations, this study adopts the financial literacy perspective presented in *The Psychology of Money*. Written by Morgan

Housel and published by Penerbit Baca in 2021, the book consists of 268 pages and presents meaningful and inspirational narratives designed to encourage readers to develop greater financial wisdom and make more responsible financial decisions, ultimately leading to improved financial well-being (Ramdhani et al., 2024).

Rather than focusing exclusively on technical financial concepts, *The Psychology of Money* explores the behavioral dimensions of wealth management by illustrating how successful individuals and investors make financial decisions. The book discusses various aspects of personal finance, investment management, business strategy, financial planning, marketing, incentives, emotional control, and the exercise of power in financial decision-making. It also provides valuable insights into responding to major financial challenges, including tax policy changes, monetary crises, inflation, and periods of economic uncertainty.

According to Daniel H. Pink, *The Psychology of Money* is an essential resource for individuals seeking to make wiser financial decisions and achieve long-term financial well-being. One of the book's most memorable messages emphasizes that "timeless lessons on wealth, greed, and happiness" represent fundamental principles for building sustainable financial success (Housel, 2020).

Within the context of this study, the behavioral finance principles presented in *The Psychology of Money* provide a conceptual foundation for understanding how financial literacy may influence public acceptance of digital taxation, blockchain technology adoption, and modern financial governance. These perspectives complement the empirical analysis by explaining that successful digital transformation depends not only on technological innovation but also on individuals' financial behavior, trust, and decision-making processes.

RESULTS AND DISCUSSION

Results

Tax Digitalization and Blockchain-Based Tax Administration

Figure 2. Blockchain Operational Framework

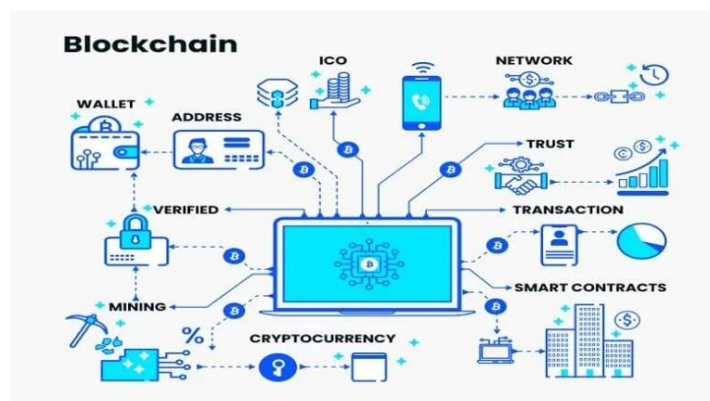


Figure 2 illustrates the operational framework of blockchain technology as a decentralized digital infrastructure designed to facilitate secure, transparent, and verifiable transactions. Blockchain operates through a distributed network in which every transaction is validated collectively by network participants before being permanently recorded in a shared digital ledger. Unlike conventional centralized databases, blockchain eliminates the need for a trusted third party by relying on cryptographic verification and consensus mechanisms to ensure data integrity.

Within this ecosystem, a digital wallet functions as a secure repository for storing and managing digital assets, including cryptocurrencies. Each wallet is associated with a unique blockchain address that enables users to send and receive digital assets. Before a transaction is permanently recorded, it undergoes a verification process in which participating nodes validate its authenticity according to predefined consensus protocols. This verification process strengthens transaction security while minimizing the risk of fraud and unauthorized modifications.

Another essential component of blockchain is mining, which refers to the computational process of solving complex cryptographic algorithms to validate transactions and generate new blocks. Once validated, these transactions become part of an immutable ledger that cannot be altered or deleted. Cryptocurrencies such as Bitcoin and Ethereum operate on blockchain technology and represent practical applications of decentralized financial systems. Furthermore, blockchain provides the technological foundation for Initial Coin Offerings (ICOs), enabling organizations to raise capital for blockchain-based projects through decentralized fundraising mechanisms.

Blockchain networks function as peer-to-peer systems that connect users directly without relying on centralized intermediaries. Consequently, trust is established collectively through network-wide verification rather than institutional authority. Digital asset transfers can also be executed automatically through smart contracts, which are self-executing programs that enforce contractual agreements once predetermined conditions are fulfilled. This automation reduces transaction costs, minimizes administrative delays, and enhances operational efficiency.

The primary advantages of blockchain include strong cryptographic security, transaction transparency, immutability, and decentralization. Transactions recorded on the blockchain can be independently verified by authorized participants while remaining resistant to unauthorized alterations. These characteristics make blockchain particularly suitable for applications requiring high levels of accountability, reliability, and data integrity.

The conceptual framework illustrated in Figure 2 demonstrates the potential relationship between blockchain technology and modern tax administration. Integrating blockchain into taxation systems has been recognized as a promising approach for improving tax governance by increasing transaction transparency, strengthening taxpayer compliance monitoring, and reducing opportunities for tax

avoidance and fraudulent practices. In addition, the integration of blockchain with artificial intelligence (AI)-supported tax databases represents a strategic initiative to modernize Indonesia's tax administration through digital transformation (Nascimento et al., 2021).

Tax digitalization can therefore be understood as a comprehensive modernization of tax administration through the adoption of electronic technologies that comply with the regulatory standards established by the Directorate General of Taxes (DJP). Digital tax systems provide taxpayers with online platforms that simplify tax registration, reporting, payment, and compliance processes while reducing administrative burdens and improving service accessibility.

The implementation of tax digitalization has produced encouraging outcomes in Indonesia. National tax revenue exceeded government targets for two consecutive years, reaching 104.0% of the annual target in 2021, representing the highest achievement in thirteen years, and increasing further to 115.6% in 2022. These results indicate that digital transformation has contributed positively to improving tax administration efficiency and revenue performance.

The digital transformation of the Directorate General of Taxes has evolved over approximately 18 years, beginning with the introduction of the electronic tax return (e-SPT) system in 2002, which enabled electronic submission of tax returns. This initiative was subsequently strengthened through collaboration with Application Service Providers (ASPs) to facilitate digital tax services. Additional milestones include the implementation of e-Registration in 2007, e-Filing in 2012, e-Billing in 2014, e-Faktur and e-Faktur Host-to-Host in 2015, and e-Bupot in 2018.

Furthermore, in 2018, the Directorate General of Taxes initiated the implementation of the Automatic Exchange of Information (AEOI) and Country-by-Country Reporting (CbCR) frameworks to facilitate international tax information exchange and improve cross-border tax transparency. These technological innovations have enabled taxpayers to submit tax reports and make tax payments electronically, thereby improving compliance, reducing administrative costs, and minimizing human error through automated processing systems.

According to data published by the Directorate General of Taxes, approximately 75% of Indonesian taxpayers utilized the e-Filing system in 2021, representing a substantial increase compared with previous years. This finding indicates that digital taxation has significantly enhanced taxpayer participation while supporting a more transparent, efficient, and accountable tax administration system. Consequently, blockchain technology and tax digitalization constitute complementary components in Indonesia's broader fiscal modernization strategy, contributing to improved governance, enhanced taxpayer compliance, and strengthened public trust in tax administration.

Discussion

The findings of this study demonstrate that the digitalization of tax administration, supported by blockchain technology and complemented by appropriate fiscal and monetary policies, has become a strategic driver for improving the efficiency, transparency, and sustainability of public financial management. Consistent with the research objective, the analysis indicates that the integration of digital technologies into tax administration extends beyond technological modernization and represents a broader institutional transformation capable of strengthening tax compliance, enhancing investor confidence, and supporting macroeconomic stability.

The empirical evidence suggests that digital tax administration has significantly transformed conventional taxation systems by replacing manual procedures with integrated electronic platforms. The introduction of digital tax services including electronic registration, e-Filing, e-Billing, e-Faktur, and more recently the Coretax Administration System illustrates the Indonesian government's long-term commitment to modernizing tax governance. These innovations have simplified tax reporting and payment procedures, reduced administrative costs, minimized human error, and improved accessibility for taxpayers. Consequently, the digitalization process contributes directly to higher administrative efficiency while reinforcing transparency and accountability within the taxation system.

The implementation of blockchain technology further strengthens this transformation by introducing a decentralized, immutable, and highly transparent transaction-recording mechanism. As illustrated in Figure 2, blockchain operates through interconnected components including decentralized networks, digital wallets, transaction verification, mining mechanisms, peer-to-peer communication, and smart contracts that collectively establish a secure digital ecosystem. These technological characteristics substantially reduce information asymmetry, prevent unauthorized data manipulation, and improve transaction traceability. Consequently, blockchain has considerable potential to enhance tax administration by enabling tax authorities to monitor taxpayer compliance more accurately while simultaneously reducing opportunities for tax evasion and fraudulent activities (Nascimento et al., 2021).

Beyond technological improvements, the findings also indicate that artificial intelligence (AI)-supported tax databases can substantially improve tax administration by strengthening risk assessment, taxpayer profiling, and compliance monitoring. The integration of blockchain with AI-based analytics creates a more comprehensive digital ecosystem capable of supporting evidence-based tax administration. Such integration aligns with global trends in digital public governance, where governments increasingly utilize advanced technologies to improve fiscal transparency, administrative effectiveness, and public accountability.

The analysis further demonstrates that Indonesia's digital tax transformation has produced measurable institutional achievements. National tax revenues exceeded

government targets in both 2021 and 2022, reaching realization rates of 104.0% and 115.6%, respectively. Although these improvements cannot be attributed exclusively to digitalization, the modernization of tax administration has likely contributed to strengthening voluntary compliance and improving administrative efficiency. Likewise, the increasing utilization of electronic filing systems—reported to have been adopted by approximately 75% of taxpayers in 2021 indicates growing public acceptance of digital taxation services and reflects the increasing maturity of Indonesia's digital tax ecosystem.

The relationship between taxation digitalization and blockchain implementation also addresses one of the central research questions concerning the modernization of public financial governance. Rather than functioning merely as supporting technologies, digital platforms and blockchain infrastructure serve as institutional mechanisms that enhance transparency, strengthen regulatory compliance, and improve the credibility of tax administration. These findings reinforce previous literature emphasizing that successful digital transformation depends not only on technological innovation but also on institutional readiness, regulatory consistency, and public trust.

The findings additionally reveal that fiscal and monetary policies continue to play fundamental roles in shaping the performance of foreign exchange (forex) markets and cryptocurrency ecosystems during digital transformation. Historical evidence from Indonesia demonstrates that macroeconomic stability remains an essential prerequisite for sustaining digital financial innovation. The successful stabilization policies implemented during President B.J. Habibie's administration including banking restructuring, prudent monetary tightening, and price stabilization policies illustrate how coordinated policy interventions can restore public confidence and stabilize exchange rates during periods of severe financial uncertainty.

From a theoretical perspective, monetary policy influences the foreign exchange market primarily through adjustments in interest rates and money supply. Expansionary monetary policies generally weaken domestic currencies by increasing liquidity, whereas contractionary policies tend to strengthen exchange rates through tighter monetary conditions. These dynamics subsequently influence investor behavior in cryptocurrency markets because digital assets are frequently regarded as alternative investment instruments during periods of monetary uncertainty. Rising interest rates often encourage investors to shift toward lower-risk financial assets, whereas accommodative monetary policies may increase the attractiveness of cryptocurrencies as speculative or diversification instruments.

Fiscal policy exhibits similar interactions with digital financial markets. Expansionary fiscal measures including increased government expenditure or tax reductions may stimulate economic growth but simultaneously generate inflationary expectations that weaken domestic currencies. Under such conditions, cryptocurrencies increasingly serve as alternative stores of value and inflation hedging

instruments. Conversely, contractionary fiscal policies designed to reduce fiscal deficits generally strengthen macroeconomic fundamentals and stabilize currency values, potentially reducing speculative demand for digital assets. Therefore, the interaction between fiscal and monetary policies creates a complex macro-financial environment that significantly influences both foreign exchange markets and cryptocurrency investment behavior.

These findings are reflected in Indonesia's recent taxation policies concerning digital assets. The implementation of Minister of Finance Regulation (PMK) No. 131 of 2024 and PMK No. 81 of 2024, effective from 1 January 2025, establishes a special Value Added Tax (VAT) framework for cryptocurrency transactions conducted through licensed Physical Crypto Asset Traders (PFAK). This regulatory adjustment demonstrates the government's effort to accommodate the distinctive characteristics of digital assets while maintaining tax compliance and legal certainty. The commitment of major cryptocurrency exchanges, including INDODAX, to comply with these regulations further strengthens transparency within Indonesia's digital asset market and supports the broader objective of improving tax governance.

Similarly, taxation of foreign exchange transactions remains regulated under Law No. 36 of 2008 concerning Income Tax, whereby gains arising from foreign exchange differences are subject to income taxation under Article 17. This regulatory framework provides legal certainty for forex market participants while simultaneously supporting national fiscal revenues. Appropriate taxation of foreign exchange activities not only enhances government revenue but also reduces uncertainty regarding the legitimacy of traders' financial transactions, thereby improving financial system credibility.

The present findings also resonate strongly with the central arguments presented in *The Psychology of Money* (Housel, 2020), which emphasizes that financial systems are fundamentally shaped by human behavior, trust, and decision-making rather than purely technological innovation. Digital taxation, blockchain adoption, and evolving financial regulations ultimately rely upon public confidence, institutional credibility, and behavioral acceptance. Accordingly, successful digital transformation in taxation requires not only advanced technological infrastructure but also effective governance, transparent institutions, and adaptive regulatory frameworks capable of fostering long-term trust among taxpayers, investors, and other economic stakeholders.

Overall, this study confirms that digital tax administration, blockchain technology, and coordinated fiscal and monetary policies collectively contribute to the modernization of public financial governance. Digitalization enhances administrative efficiency and taxpayer compliance, blockchain strengthens transparency and data integrity, while prudent macroeconomic policies preserve financial stability amid rapidly evolving digital financial ecosystems. These findings suggest that sustainable digital transformation requires an integrated policy framework combining technological innovation, institutional reform, sound macroeconomic management,

and behavioral considerations to maximize the benefits of digital public finance while mitigating emerging risks associated with financial digitalization.

CONCLUSION

This study demonstrates that the digitalization of tax administration, supported by blockchain technology and viewed through the financial literacy perspective presented in *The Psychology of Money*, has significant implications for the development of modern tax systems and the broader financial ecosystem. The findings indicate that digital tax transformation contributes to improving transparency, operational efficiency, and accountability in tax administration by reducing administrative complexity, minimizing human error, and strengthening compliance monitoring. The integration of blockchain technology further enhances data integrity, transaction security, and auditability, thereby reducing opportunities for tax evasion and fraudulent practices.

The study also reveals that tax digitalization extends beyond administrative reform by influencing macroeconomic and financial market dynamics. Changes in tax policies, together with monetary and fiscal measures, affect foreign exchange (forex) market volatility through their influence on investor confidence, capital mobility, and exchange rate expectations. Likewise, the increasing adoption of cryptocurrency and blockchain-based financial systems requires adaptive regulatory frameworks capable of balancing technological innovation with financial stability and tax compliance. Indonesia's recent initiatives, including the implementation of the Coretax Administration System and updated taxation policies for crypto assets, represent important milestones toward establishing a more transparent, efficient, and technology-driven tax administration system.

Furthermore, the conceptual framework of *The Psychology of Money* highlights that successful digital transformation depends not only on technological advancement but also on financial literacy, behavioral awareness, and public trust. Individuals' psychological attitudes toward money, investment, taxation, and digital finance influence their willingness to adopt digital tax systems and comply with taxation regulations. Consequently, technological innovation should be accompanied by continuous public education, institutional capacity building, and evidence-based policy development to maximize the benefits of digital taxation while maintaining macroeconomic stability.

Overall, this study concludes that the successful integration of digital taxation, blockchain technology, and sound fiscal policies can strengthen tax administration, improve market confidence, enhance financial transparency, and support sustainable economic development in the digital economy.

Suggestions for Future Research

Future studies should expand the empirical scope by incorporating larger cross-country datasets to compare the effectiveness of digital tax administration across

different institutional and regulatory environments. Comparative analyses between developed and emerging economies would provide deeper insights into the determinants of successful tax digitalization and blockchain adoption.

Future research is also encouraged to employ more advanced quantitative approaches, such as Structural Equation Modeling (SEM), panel data regression, or dynamic econometric models, to examine the causal relationships among financial literacy, tax digitalization, blockchain implementation, tax compliance, and macroeconomic indicators. Such approaches would provide stronger empirical evidence regarding the mechanisms through which digital transformation influences taxation and financial markets.

In addition, subsequent studies should investigate taxpayers' behavioral intentions toward digital taxation by integrating behavioral finance theories, particularly the psychological dimensions discussed in *The Psychology of Money*. Variables such as financial literacy, trust in government, perceived technological usefulness, digital readiness, and perceived cybersecurity risk could be incorporated to better explain taxpayers' acceptance of digital tax systems.

Finally, future research may evaluate the long-term impact of Indonesia's Coretax Administration System and blockchain-based tax innovations on tax revenue performance, administrative efficiency, taxpayer compliance, and foreign exchange market stability. Such longitudinal studies would provide valuable evidence for policymakers in designing more adaptive, technology-oriented, and sustainable fiscal strategies that support the digital transformation of public finance.

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