JEKSYAH: Islamic Economics Journal
Vol. 06 No. 01, 2026 : 1-9
Available at https://ejournal.iaingorontalo.ac.id/index.php/jeksyah

The Influence of Digital Transformation, Inflation, and Economic Growth on Zakat Growth: Evidence from Indonesian

M Bastomi Fahri Zusak
Universitas Diponegoro, Indonesia

Article History
Received : 28/Jan/2026
Revised : 07/Apr/2026
Accepted : 13/Apr/2026
Published: 03/May/2026

Keywords:
Zakat growth; digital transformation; inflation; economic growth.

DOI:
10.54045/jeksyah.v6i01.3466

Corresponding author:
bastomifahri@live.undip.ac.id

Paper type:
Research paper

Abstract

This study investigates the complex relationship between digital transformation, inflation, and economic growth in influencing zakat growth in Indonesia. Drawing on panel data from 36 cities over the period 2020 to 2022, the research employs a fixed-effects regression model to examine in detail how varying levels of technological readiness, alongside broader macroeconomic conditions, affect the dynamics of zakat collection and distribution. The empirical findings indicate that, while digital transformation is theoretically expected to expand the zakat collection base, improve efficiency, and strengthen institutional performance, in practice it has thus far exerted a negative influence on zakat growth. This outcome can largely be attributed to the high transition costs associated with the early implementation phase, the uneven distribution of digital literacy, and the relatively low level of public trust in online payment platforms, which collectively limit the effectiveness of zakat mobilization. By incorporating both technological and macroeconomic dimensions into the analysis of zakat, this study not only advances the theoretical discourse within the field of Islamic economics but also provides practical insights and policy recommendations for enhancing the resilience, credibility, and inclusiveness of zakat institutions in the digital era, ultimately contributing to more sustainable and equitable socio-economic development.

Introduction

Zakat, as one of the five pillars of Islam, has long been recognized not only as a religious obligation but also as a potential driver for socio-economic justice. In Indonesia, with its 230 million Muslims, zakat is considered a powerful tool for addressing poverty and inequality while promoting inclusive growth. According to BAZNAS (2025), zakat collection has grown significantly in recent years, with national collection surpassing IDR 40,5 trillion in 2024. This remains far below the estimated potential of over IDR 300 trillion annually.

Indonesia, as home to more than 230 million Muslims, represents one of the largest bases for zakat collection in the world. The scale of its Muslim population offers a substantial opportunity to transform zakat into a sustainable source of funding for social welfare and poverty alleviation programs. In recent years, zakat has attracted growing attention from policymakers, academics, and practitioners as an alternative tool to complement state-led development efforts (Judijanto & Ilhamiwati, 2024).

E ISSN 2807-9272

Its role in addressing structural poverty, reducing social inequality, and empowering marginalized communities has positioned zakat as a unique mechanism that integrates religious values with socio-economic objectives (Wahyuni & Wulandari, 2024;Mohd Ali et al., 2015).

Despite the evident potential, the determinants of zakat growth remain underexplored at the city level in Indonesia. Prior studies often focus either on technological adoption or on macroeconomic relationships. The role of digital transformation in zakat management has received increasing scholarly attention. Several studies emphasize that the adoption of digital platforms enhances transparency, accountability, and convenience, thereby boosting public trust and willingness to pay zakat (Hadi et al., 2024;Hudaefi et al., 2021;Mutamimah et al., 2021). Digital innovation has also been linked to improved collection efficiency and broader outreach, especially among urban populations who are more digitally literate (Sarea & Hanefah, 2013). However, research on digital transformation in zakat institutions remains fragmented, often focusing on technological adoption in isolation, without adequately examining its interaction with broader economic conditions.

Despite the evident potential of zakat as a developmental instrument, the determinants of zakat growth remain underexplored at the subnational level in Indonesia. Previous research has tended to examine either technological adoption or macroeconomic relationships in isolation, rather than integrating both perspectives into a unified analytical framework. There is a lack of empirical studies that simultaneously investigate how digital transformation, inflation, and economic growth interact to influence zakat collection across cities or regions in Indonesia. Addressing this gap is critical, as regional variations in socio-economic conditions and digital infrastructure could significantly affect the effectiveness of zakat mobilization strategies.

This study seeks to fill the gap by analyzing the influence of digital transformation, inflation, and economic growth on zakat growth in Indonesia within a panel data framework. By integrating both technological and macroeconomic perspectives, this research contributes to a more comprehensive understanding of the factors that drive zakat collection, with implications for policy design, institutional strengthening, and the strategic role of zakat in advancing inclusive economic development.

Literature Review

Zakat and Socio Economic Distribution

Zakat has long been understood to embody a dual function: spiritual purification for the payer and socio-economic redistribution for the community. From the spiritual perspective, zakat fulfills the obligation to cleanse one's wealth and soul from excessive material attachment, thereby strengthening faith and moral consciousness (Monzer Kahf, 1999). On the socio-economic side, zakat is designed to transfer wealth from the affluent to those in need, functioning as a built-in redistributive mechanism that fosters justice, equity, and social solidarity within Muslim societies (Nayak & Hegde, 2023).

Empirical research in Indonesia provides strong evidence of zakat's developmental impact. Choiriyah et al., (2020) demonstrated that zakat significantly reduces poverty levels across Indonesian provinces by improving access to basic needs and social protection.

Similarly, Nurrizka Puji Lestari & Ilmiawan Auwalin, (2022) argue that zakat contributes to reducing inequality, although its effects vary depending on regional economic structures, institutional capacity, and distribution mechanisms. This indicates that while zakat has proven effectiveness, contextual factors strongly shape its outcomes.

Other studies also highlight zakat's broader socio-economic role. Beik & Arsyianti, (2016), through a micro-level impact assessment, found that zakat not only alleviates poverty but also improves welfare indicators such as health, education, and household consumption among beneficiaries. Meanwhile, Zakat plays an important role in influencing Indonesia's economic growth, both in the short and long run. In the short term, zakat distribution tends to have a negative effect on economic growth, while in the long term, it contributes positively to economic development (Prawoto & Basuki, 2024). The growth of zakat funds is influenced not only by individual religiosity but also by macroeconomic variables such as GDP growth, inflation, and income distribution (Kafabih, 2024;Kasri, 2016).

Digital Transformation and Zakat Management

The development of entrepreneurial and leadership competencies constitutes a crucial element in enhancing the effectiveness of zakah management. Simultaneously, regulatory authorities are expected to formulate policies that not only provide strong incentives for compliance but also accommodate opportunities for innovation. In this regard, further scholarly inquiry is warranted to examine the extent to which social, economic, and cultural dimensions shape zakah compliance (Razak et al., 2024).

In recent years, digital transformation has emerged as a critical factor in enhancing zakat collection and distribution. The digital zakat system represents a significant innovation aimed at enhancing the efficiency of zakat management and distribution within society. The adoption of digital platforms facilitates greater convenience for individuals in fulfilling their zakat obligations, thereby increasing accessibility and participation. However, the successful implementation of zakat digitization requires effective collaboration among key stakeholders, including governmental bodies, zakat management institutions, and academic communities. Such coordinated efforts are essential to optimize the potential benefits of digitalization and ensure the system contributes meaningfully to socio-economic development (Rizal, 2023). Moreover, digitalization not only improves collection but also enables more targeted and accountable distribution of zakat, which is essential for maximizing its socio-economic impact. Nonetheless, the digital divide across regions remains a challenge, as not all areas in Indonesia enjoy equal access to digital infrastructure.

Research Methods

This study investigates how digital transformation impacts zakat growth. Data were collected for the period 2020-2022 in 36 cities in Indonesia. Zakat growth data was collected from the annual report of the National Zakat Agency of the Republic of Indonesia, while data related to digital transformation were obtained from the digital transformation index of various cities in Indonesia compiled by the Ministry of Communication and Digital Affairs of Republic of Indonesia. Digital transformation data is limited, as it only extends up to the year 2022.

Previous research has used digital transformation as a measure of company growth. Digital transformation can reduce total asset turnover (Guo et al., 2023), increasing operational cost (Chen et al., 2024), negatively impact short-term financial performance (Wu, 2025).

Table 1. Data measurement

Variable	Symbol	Measurement/Proxy	Source
Zakat Growth	Y	% growth of zakat collection	BAZNAS
Digital Transformation	X1	Digital Transformation Index	Kemkomdigi
Inflation	X2	Annual CPI inflation (%)	BPS
Economic Growth	X3	PDRB growth (%)	BPS

Source: Data processed by researchers (2026)

This study employs a static panel data design, wherein the application of fixed effects and random effects models provides an appropriate methodological framework for addressing the characteristics inherent in static panel structures (Wooldridge, 2016).

$$ZG_{it} = \beta_{1+} \beta_2 DT_{jt} + \beta_3 Inf_{jt} + \beta_4 EG_{jt} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where, ZG_{it} denotes the growth of zakat in region *i* at time *t.* DT_{it} represents the level of digital transformation. Inf_{jt} represents inflation rates, and EG_{jt} indicates the rate of economic growth. Based on theoretical and empirical considerations, this study hypothesizes that digital transformation ($\beta 1$) exerts a positive influence on zakat growth by enhancing accessibility and efficiency in collection and distribution. Conversely, inflation ($\beta 2$) is expected to have a negative effect, as rising prices may reduce individuals' disposable income and willingness to pay zakat. Meanwhile, economic growth (β3) is hypothesized to positively affect zakat growth, since higher levels of prosperity increase both the capacity and willingness of Muslims to fulfill their zakat obligations.

H1: Digital transformation will increase zakat growth.

H2: Inflation is expected to have a negative effect on zakat growth.

H3: Economic growth has positive affect on zakat growth

Results and Discussion

Table 2 presents the descriptive statistics of the variables used in this study, including zakat growth (zg), digital transformation (dt), inflation (inf), and economic growth (eg). These statistics provide an initial overview of the data distribution, covering the number of observations, mean values, standard deviations, as well as minimum and maximum values. Through this descriptive analysis, the study aims to capture the general characteristics and variability of each variable, which serve as a foundation for further econometric analysis and interpretation of relationships among variables.

Table 2. Descriptive statistic

Variable	Obs	Mean	Std. dev.	Min	Max
zg	108	15.19074	55.50568	-99	267.6
dt	108	48.65861	6.253428	36.06	66.18
inf	108	2.312685	2.039875	-0.18	7.43
eg	108	2.881481	4.259271	-9.34	22.94

Source: Data processed by researchers (2026)

Based on descriptive statistics, the zakat growth variable (zg) showed an average value of 15.19 with a very high standard deviation of 55.50. This indicates significant fluctuations in zakat growth between periods or regions. The digital transformation variable (dt) had an average value of 48.66 with a relatively small standard deviation of 6.25. The minimum value of 36.06 and the maximum value of 66.18 indicate that the level of digital transformation in various regions tends to be stable. Inflation (inf) recorded an average value of 2.31 with a standard deviation of 2.04, indicating a relatively low and stable inflation rate. Economic growth (eg) had an average value of 2.88 with a standard deviation of 4.26. The minimum value of -9.34 indicates a significant economic contraction.

Table 3. Correlation Matrix

Variable	zg	dt	ln_inf	eg
zg	1			
dt	0.0476	1		
ln_inf	0.0076	0.0754	1	
eg	0.0045	-0.0746	0.2811	1

Source: Data processed by researchers (2026)

The correlation analysis results show that the linear relationship between zakat growth (zg) and digital transformation (dt), inflation (ln_inf), and economic growth (eg) is very weak, so there is no strong linear relationship between these variables. However, this condition is positive for regression analysis because it indicates a low risk of multicollinearity between the independent variables. Meanwhile, the moderate correlation between inflation and economic growth (0.2811) is consistent with macroeconomic theory that inflation at a certain level can stimulate economic activity.

Table 4. Regression result

zg	Coefficient	Std. err.	t	P>t	[95%	conf. interval]
ln_dt	-581.35	329.2885	-1.77	0.082	1238.26	75.5624
inf	-2.46159	3.778893	-0.65	0.517	-10.0003	5.0771
eg	4.679164	2.430109	1.93	0.058	-0.16877	9.5271
_cons	2261.236	1269.903	1.78	0.079	-272.151	4794.623

Source: Data processed by researchers (2026)

The regression results show that the digital transformation variable (ln_dt) has a negative effect on zakat growth with a coefficient of -581.35, although this effect is only significant at the 10% level (p = 0.082). Inflation (inf) has a negative coefficient of -2.46, but it is not significant (p = 0.517), so it is not proven to affect zakat statistically. In contrast, economic growth (eg) shows a positive effect with a coefficient of 4.68 and approaches significance at the 10% level (p = 0.058), indicating that increased economic growth tends to encourage zakat growth.

Discussion

This finding strengthens the argument that increasing community welfare and income encourages the capacity of muzakki to pay zakat, as shown by Fauzia et al., (2021) who maps zakat potential, is greatly influenced by regional economic dynamics. The research results show that digital transformation has a negative impact on zakat growth, although digitalization is theoretically expected to expand the collection base and improve distribution efficiency. This finding can be explained by several factors. First, in the initial stages of implementation, digitalization often incurs high transition costs for both zakat management institutions and zakat payers, resulting in suboptimal collection effectiveness (Kasri & Yuniar, 2021). Second, the gap in digital literacy and access means that some people are unable to adapt to technology-based zakat payment channels (Maulida et al., 2022), Thus, they still prefer traditional mechanisms. Third, digital transformation without strengthening public trust has the potential to lead to the substitution of zakat distribution channels to platforms that are not officially registered, resulting in a decline in recorded zakat growth. Low public trust in digital platforms, both due to transparency and security issues, also hinders the use of online systems (Mirghaderi et al., 2023).

To reduce disparities in the development of information and communication technology (ICT) that underpins the digitalization of zakat, the government must ensure an equitable distribution of infrastructure (Syafira Fauzia et al., 2021). Therefore, the negative outcome primarily reflects the transitional stage of zakat digitalization in Indonesia, which, in the long run, still holds substantial potential to foster zakat growth, provided it is supported by adequate literacy, robust regulations, and strong institutional frameworks.

The findings of this study imply that zakat policy strengthening should be directed toward two key dimensions. First, it must support sustainable real economic growth, as rising household income directly enhances zakat potential. Second, the optimization of digital transformation should focus on improving trust and literacy among muzakki, ensuring that digitalization serves not merely as an administrative tool but also as a means of expanding the zakat collection base. On the other hand, maintaining inflation stability remains essential, since even though it does not appear significant in the model high inflationary pressure could undermine the capacity of households to fulfill their zakat obligations. Thus, the synergy between macroeconomic policies, zakat digitalization strategies, and institutional strengthening is crucial to ensure more stable and sustainable zakat growth.

Conclusion

The research findings indicate that digital transformation currently exerts a negative effect on zakat growth. This condition arises from high transition costs, gaps in digital literacy, and limited public trust in online platforms. However, these results do not negate the potential of digitalization; rather, they reflect an early transitional phase that continues to encounter both structural and cultural challenges within society.

To address these challenges, the implementation of zakat digitalization should be oriented toward three key aspects. First, enhancing digital literacy through education and outreach programs involving zakat institutions, academics, and community organizations, so

that muzakki become accustomed to technology-based payment channels. Second, strengthening regulatory frameworks and governance mechanisms to ensure transparency and accountability, thereby fostering greater public trust in official digital platforms. Third, expanding ICT infrastructure in an equitable manner, particularly in regions with limited internet access, to ensure that the benefits of zakat digitalization are distributed more inclusively.

In the long run, effective implementation will enable digital transformation to serve as a catalyst for zakat growth in Indonesia. The integration of technology with zakat institutions not only enhances the efficiency of collection and distribution but also creates opportunities for social innovation, such as linking zakat with big data on welfare or employing blockchain for transparency. With the support of the government, zakat institutions, and the wider community, digitalization can move beyond its transitional phase toward a robust, effective, and equitable system.

References

Beik, I. S., & Arsyianti, L. D. (2016). Measuring Zakat Impact on Poverty and Welfare Using Cibest Model. *Journal of Islamic Monetary Economics and Finance*, *1*(2), 141–160. https://doi.org/10.21098/jimf.v1i2.524

Chen, S., Alexiou, C., & Lee, S. (2024). Beyond binary: exploring the interplay of China's digital transformation and firm performance through dual mechanism analysis. *Asia Pacific Business Review*, *00*(00), 1–35. https://doi.org/10.1080/13602381.2024.2434010

Choiriyah, E. A. N., Kafi, A., Hikmah, I. F., & Indrawan, I. W. (2020). Zakat and Poverty Alleviation in Indonesia: a Panel Analysis At Provincial Level. *Journal of Islamic Monetary Economics and Finance*, *6*(4), 811–832. https://doi.org/10.21098/jimf.v6i4.1122

Guo, X., Li, M., Wang, Y., & Mardani, A. (2023). Does digital transformation improve the firm's performance? From the perspective of digitalization paradox and managerial myopia. *Journal of Business Research*, *163*, 113868. https://doi.org/https://doi.org/10.1016/j.jbusres.2023.113868

Hadi, R., Shafrani, Y. S., Hilyatin, D. L., Riyadi, S., & Basrowi. (2024). Digital zakat management, transparency in zakat reporting, and the zakat payroll system toward zakat management accountability and its implications on zakat growth acceleration. *International Journal of Data and Network Science*, *8*(1), 597–608. https://doi.org/10.5267/j.ijdns.2023.8.025

Hudaefi, F. A., Caraka, R. E., & Wahid, H. (2021). Zakat administration in times of COVID-19 pandemic in Indonesia: a knowledge discovery via text mining. *International Journal of Islamic and Middle Eastern Finance and Management*, *15*(2), 271–286. https://doi.org/10.1108/IMEFM-05-2020-0250

Judijanto, L., & Ilhamiwati, M. (2024). Analysis of Zakat as an Alternative Fiscal Instrument in Supporting Economic Development in Indonesia. *West Science Islamic Studies*, *2*(04), 170–177. https://doi.org/10.58812/wsiss.v2i04.1346

Kafabih, A. (2024). The Nonlinear Impact of Inflation on Zakat Collection in Indonesia. *Share:*

Jurnal Ekonomi Dan Keuangan Islam, *13*(2), 825–848. https://doi.org/10.22373/share.v13i2.24202

Kasri, R. A. (2016). Effectiveness of Zakah Targeting in Alleviating Poverty in Indonesia. *Al-Iqtishad: Journal of Islamic Economics*, *8*(2). https://doi.org/10.15408/aiq.v8i2.3005

Kasri, R. A., & Yuniar, A. M. (2021). Determinants of digital zakat payments: lessons from Indonesian experience. *… of Islamic Accounting and Business Research*. https://doi.org/10.1108/JIABR-08-2020-0258

Maulida, S., Amruzi, F., Hakim, B., & Beik, I. (2022). Problems and solutions in zakat digitalization: Evidence from South Kalimantan, Indonesia. *Jurnal Ekonomi & Keuangan Islam*, *8*, 94–109. https://doi.org/10.20885/jeki.vol8.iss1.art7

Mirghaderi, L., Sziron, M., & Hildt, E. (2023). Ethics and Transparency Issues in Digital Platforms: An Overview. In *AI* (Vol. 4, Issue 4, pp. 831–843). https://doi.org/10.3390/ai4040042

Mohd Ali, A. F., Rashid, Z. A., Johari, F., & Muhammad, M. R. (2015). The effectiveness of Zakat in reducing poverty incident: An analysis in Kelantan, Malaysia. *Asian Social Science*, *11*(21), 355–367. https://doi.org/10.5539/ass.v11n21p355

Monzer Kahf. (1999). The performance of the institution of zakah in theory and practice. *International Conference on Islamic Economics Towards the 21st Century*, 1–40.

Mutamimah, M., Alifah, S., Gunawan, G., & ... (2021). ICT-based collaborative framework for improving the performance of zakat management organisations in Indonesia. *… and Business Research*. https://doi.org/10.1108/JIABR-05-2020-0154

Nayak, V., & Hegde, K. P. (2023). Examining the Impact of Wealth Redistribution through Zakat. *Millah: Journal of Religious Studies*, *22*(2), 285–312. https://doi.org/10.20885/millah.vol22.iss2.art1

Nurrizka Puji Lestari, & Ilmiawan Auwalin. (2022). Zakat and Income Inequality in Indonesia: Panel Data Analysis in 34 Provinces. *Jurnal Ekonomi Syariah Teori Dan Terapan*, *9*(6), 898–912. https://doi.org/10.20473/vol9iss20226pp898-912

Prawoto, N., & Basuki, A. T. (2024). the Influence of Zakat and Macro Variables on Economic Growth. *Corporate Law and Governance Review*, *6*(2), 54–63. https://doi.org/10.22495/clgrv6i2p5

Razak, S., Nasuka, M., Syahabuddin, Arsyad, K., & Darwis, M. (2024). Strengthening Zakah Compliance Among Indonesian Muslims Through the Role Ofinstitutional Capabilities. *Journal of Islamic Monetary Economics and Finance*, *10*(3), 497–520. https://doi.org/10.21098/jimf.v10i3.2081

Rizal, S. (2023). Digitalization of Zakat in Stimulating Community Socio-Economic Development in the Middle of the Covid-19 Pandemic (Maqashid Syariah Perspective). *European Journal of Humanities and Social Sciences*, *3*(1 SE - Articles), 23–33. https://doi.org/10.24018/ejsocial.2023.3.1.384

Sarea, A. M., & Hanefah, M. M. (2013). The need of accounting standards for Islamic financial institutions: evidence from AAOIFI. *… Islamic Accounting and Business Research*. https://doi.org/10.1108/17590811311314294

Syafira Fauzia, A., Mulatsih, S., & Alexandi, F. (2021). Mapping the Potential of Zakat Collection Digitally in Indonesia. *International Journal of Zakat*, *6*(3), 1–22.

Wahyuni, P., & Wulandari, R. (2024). Zakat and poverty alleviation in Muslim countries: A Biblioshiny application. *Journal of Islamic Economics Lariba*, *10*(1), 205–230. https://doi.org/10.20885/jielariba.vol10.iss1.art12

Wooldridge, J. M. (2016). *Introductory Econometrics, A Modern Approach* (5th ed.). South Western Cengage Learning.

Wu, Y. (2025). № 1 | 2025 Higher School of Economics 70 Y. (2025) Can ESG Buffer the Pains of Digital Transformation? Evidence from Chinese Listed Companies. *Journal of Corporate Finance Research*, *19*(1), 70–97. http://creativecommons.org/licenses/by/4.0/