



DIGITAL FISCAL GOVERNANCE IN ISLAMIC ECONOMIES: THE CONVERGENCE OF ZAKAT, TAXATION, AND EMERGING FINANCIAL TECHNOLOGIES

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Abstract

This study examined the issue of digital fiscal governance in Islamic economies by investigating the convergence of zakat and taxation and new financial technologies. The study design was quantitative, cross-sectional, and explanatory. The instrument, a questionnaire with a five-point Likert scale, was used. A purposive sample of 300 respondents who have knowledge/experience in the fields of taxation, zakat, Islamic finance, digital financial services, or FinTech was selected. Digital Zakat Integration, Digital Taxation, Blockchain-Enabled Tracking of Transparency, and AI-Enabled Financial Analytics were the independent variables, while Digital Fiscal Governance was the dependent variable. SPSS was used for descriptive statistics, Cronbach's alpha to check for internal consistency, Pearson correlation, and multiple regression. The results indicated that Digital Fiscal Governance had the highest mean ($M = 3.95$, $SD = 0.69$), followed by Digital Zakat Integration ($M = 3.91$, $SD = 0.71$), and AI-Driven Financial Analytics ($M = 3.88$, $SD = 0.73$). The internal consistency of all constructs was high, ranging from 0.85 to 0.92 on Cronbach's alpha level. Digital Zakat Integration was the most highly correlated with Digital Fiscal Governance ($r = 0.68$, $p < 0.01$). The regression model was statistically significant ($R = 0.784$, $R^2 = 0.614$, $F = 117.31$, $p < 0.001$) and explained 61.4% of the variance. Digital Fiscal Governance was significantly predicted by Digital Zakat Integration ($\beta = 0.31$, $p < 0.001$), Digital Taxation ($\beta = 0.28$, $p < 0.001$), Blockchain-Enabled Transparency ($\beta = 0.22$, $p < 0.01$), and AI-Driven Financial Analytics ($\beta = 0.19$, $p < 0.01$). The results validate integrated and transparent digital fiscal systems with accountability and Sharia-compliant systems.

Keywords: Artificial Intelligence, Blockchain, Digital Fiscal Governance, Digital Taxation, FinTech, Zakat

1. Introduction

Public financial management systems and rules are undergoing a digital transformation in the ways communities gather, monitor, implement, and spend public funds. Such a transition could create various opportunities for the smooth integration of taxation, zakat, and new financial technologies within a more open and efficient fiscal management system of Islamic financial economies. Access to financial and public services could be improved through administrative efficiency enhancements with the help of Artificial Intelligence, Blockchain, Big Data Analytics, Digital Payments, and Automated Financial Platforms. The role of financial technology and digital financial systems (DFFS) in improving financial inclusion, financial efficiency of institutions, and sustainable economic development has been growing in recent years (Hassan, Rabbani, Ali, & Mahmood, 2024; Sarea, 2024).



The relationship between zakat and taxation in Muslim-majority economies is an interesting element of fiscal governance. Taxation and zakat are carried out through different instances, legal, institutional, and normative, and both are necessary to mobilize resources in carrying out socio-economic development processes. Digital technologies can provide them with opportunities to improve their administration and management—payment systems may be automated, and data integrated, identified, and monitored live. Emerging studies relate that digital zakat platforms can create a firm foundation in terms of strengthening eligible beneficiary identification, donor engagement, transparency, and collection efficiency (Kasri, 2024; Kamaruddin, 2025).

Fiscal governance of Islamic economies faces new challenges as new technologies emerge. AI technology can help transfer zakat funds more easily and improve the tracking and accountability for funds; blockchain can help with fraud detection, compliance management, financial forecasting, and decision-making through data. As for the topics of cybersecurity, privacy and protection of personal data, transparency of algorithms, regulatory capacity, regulatory competence, and Shariah governance, these have all posed problems in the digital era. The regulatory frameworks, institutional preparations, and reliability and suitability of financial technology Shariah oversight mechanisms and infrastructure as perceived by the general public are emphasized by various recent studies that speak to financial technology adoption by institutions (Rabbani, Bashar, Ali, & Rahman, 2024; Alshater, Saba, Supriani, & Rabbani, 2024).

The emergence of digital technologies on a scale of greater size towards more data-driven and interdependent governance systems has contributed to supporting new and emerging fiscal systems. This can involve enrolling taxpayers to pay their taxes electronically, having taxes filed electronically, automatic payments, and monitoring tax compliance. These changes may improve the capacity of administrative function and reduce transaction costs of these institutions as well as citizens. At the same time, Islamic financial institutions (IFIs) and Islamic zakat institutions are launching pilot starts of digital products to facilitate Islamic social finance collections and deliveries. The study of digitalisation as a lever to improve the accessibility, efficiency, and transparency in the provision of Islamic financial services has been accelerated in the last few years (Hassan et al., 2024; Sarea, 2024).

The role of zakat in the implementation of digital transformation is unique as it is an obligation based on faith which is linked to wealth redistribution and providing social services. But conventional systems of zakat management may be confronted with problems of disorganized information systems, transparency issues, administrative inefficiencies, as well as problems in determining eligible recipients. These can be addressed with the use of digital technologies, which enable the electronic collection of data, centralisation of databases, automated calculation of the distribution of funds, and improved monitoring of fund distribution. Blockchain technology has become more popular because it offers the potential to create financial records that are transparent and traceable (Alshater et al., 2024; Kamaruddin, 2025).

The study and policy of zakat, taxation, and development of financial technology is a dynamic subject. Coordination between government, tax offices, zakat institutions and zakat organizations, Islamic financial institutions, technology providers, and various regulations are required in implementing the integrated system of digital fiscal governance. There is no complete standardisation of legal framework, roles, data governance, and interpretations of Shariah that can cause impediments for integration. The necessity for the integration of regulations, digital trust, cybersecurity, and financial education and readiness of institutions to achieve the specialization (Kasri, 2024).

1.1 Research Objectives

1. To look at the contribution of new financial technologies—a range of artificial intelligence, blockchain, big-data analytics, digital payments, and fintech platforms—in enhancing the governance of digital finances in Islamic economies.
2. To explore the role of the digital convergence of zakat and taxation in enhancing fiscal transparency, administrative efficiency, compliance, accountability, and socioeconomic redistribution.
3. To explain the technological, institutional, regulatory, cybersecurity, and Shariah issues affecting the successful implementation of digitally integrated fiscal governance in Islamic economies.



1.2 Research Questions

Q1. How do key emerging financial technologies contribute to the advancement of good digital fiscal governance in Islamic economies?

Q2. What are the benefits of digital convergence of zakat and taxes in relation to fiscal transparency, efficiency, compliance, accountability, and socioeconomic redistribution?

Q3. What are the technological, institutional, regulatory, cybersecurity, and Shariah challenges that will impact successful implementation of digital fiscal governance in Islamic economies?

1.3 Significance of the Study

The study is academically significant, policy significant, institutionally significant, technologically significant, socially significant, and Shariah significant. In terms of academics, it adds to the academic literature on Islamic economics, digital fiscal governance, Islamic social finance, taxation, and FinTech with a view to bringing these different concepts together under one common umbrella. At a policy level, the study offers suggestions for the development of integrated digital fiscal systems for the connection between the administration of zakat and new financial technologies with taxation. On the institutional side, it acts as a facilitating body to assist zakat organizations and tax authorities to enhance the collection, monitoring, transparency, accountability, and allocation of zakat resources by the implementation of a technology-enabled platform. In terms of technology, the study calls attention to the advantages that artificial intelligence, blockchain, digital payment technologies, and big data analytics can bring to modernize fiscal administration and to counteract cybersecurity and data-privacy issues. Socially, socially enabled fiscal systems can help ensure that equal opportunities are provided for access to resources, financial inclusion, and the welfare of socio-economic systems. The study highlights the need to maintain adherence to Islamic principles, ethical banking concepts, and general goals of Islamic economic innovations in the digital era from the Shariah perspective.

2. Literature Review

2.1 Digital Transformation of Zakat and Islamic Social Finance

Digitalization of zakat has proved to be a crucial space in Islamic Social Finance as digital platforms can help herald in new paradigms of how to collect, pay, monitor, and distribute zakat. Mobile applications, online payment options, artificial intelligence, blockchain, and data analytics have all been featured in recent literature for improved accessibility and operational efficiency, and institutional transparency. Among the researchers mentioned by Nor et al. (2025), digitalization is considered a young and developing field of study, attracting more and more entanglements between the concepts of fintech, blockchain, and artificial intelligence in terms of zakat administration. This recent evidence demonstrated that the implementation of digital zakat management has the potential to improve the currently observed financial inclusion in Pakistan by introducing digital payment mechanisms, keeping track of beneficiaries, and linkage with Islamic micro finance (Alam & Ansari, 2026).

Many references in the literature have cited that the use of new technologies of artificial intelligence (AI), as well as the utilization of big data, has enabled the ability to target and distribute zakat in a better manner. Large amounts of socioeconomic data can be analysed with AI and patterns can be spotted in a mass of potential beneficiaries, helping with eligibility checks, and organizations can paste more efficiently. The authors Wahab et al. (2026) state that several factors such as technological readiness, organizational capability, environmental pressures, and institutional legitimacy are crucial for successful implementation of AI in the governance of zakat. Nugroho and Al-Giffari (2026), in the study, pointed out that there are possibilities of technology application related to artificial intelligence, big data algorithms, and digital instruments of governance to address the widespread issue of non-collection of zakat. The literature indicates that transformational technology can enhance both the administrative and distributive aspects of zakat; however, there is a need for institutional capability and good governance to implement this (Alam, 2026).

The other major theme is the vanity between digitization and empowerment of the beneficiaries of zakat. Information through digital platforms can be ensured to all beneficiaries, improve the communication of institutions, and provide better, systematic tracking of the socioeconomic outcomes. Based on the latest



literature on Digital Transformation in Malaysia, the challenges of digital literacy, technologic readiness, regulatory issues, and unequal access to digital tools are still present in the effective empowerment of zakat (Fazial et al., 2025).

2.2 Fiscal Governance, Blockchain, Artificial Intelligence, and FinTech

Islamic financial systems are seeing a growing influence of emerging financial technologies, developing new financial transparency, verification, automation, and financial institutional accountability. The blockchain's distributed ledger capability is most relevant in the sense that it's capable of recording financial transactions in a transparent manner, decreasing the chance of unauthorized changes to information. The readiness of institutions, public awareness, infrastructure deficiencies, and existing regulations are obstacles to implementing blockchain, but blockchain, AI, and IoT technologies also offer substantial potential for enhancing transparency, accountability, and efficiency in managing zakat, notes Susanto (2025). Kismawadi et al. (2026) discuss blockchain technology and generative AI as possibilities to improve the quality of the decision-making process in line with the boundaries of the Qur'an and Sunnah and to reduce frauds and improve efficiency and security in identifying scams.

AI can also unveil opportunities for enhancing fiscal compliance and institutional decision-making. Demir et al. (2025) highlight the advent of financial innovations powered by AI, which has introduced substantial governance challenges such as transparency, fairness, and accountability in financial decision-making processes, especially for automated systems. Wahab et al. (2026) highlight the importance of adopting a multi-faceted approach by incorporating technological, organizational, environmental, and institutional factors in the implementation of AI in the governance of zakat.

Trust is another core issue where technology-based Islamic financial systems need to be introduced in the adoption process of the technology. Blockchain can lend greater confidence to users and institutions for these transactions by giving users the ability to verify all these records, and real-time tracking of the movement of zakat money can lend greater visibility to the institutions. This is an empirical study whose findings would be significant in the sense that after analysing the study, it is known that the performance expectancy, intrinsic religiosity, and trust can affect the use of zakat based on blockchain towards acceptance. The results showed that four factors of technology acceptance (e.g., perceived usefulness, ease of use, enjoyment, and social influence) along with faith-based influences play a role in Islamic social finance. Therefore, digital financial governance necessitates efficient systems of technology, which are trustworthy, transparent, safe, and convey Islamic values.

2.3 Integration of Zakat and Taxation in Digital Era

Two items are coming together: taxation and zakat, and it is a new dimension of Islamic fiscal governance. Traditionally, the concept of zakat and that of taxation are two sets of institutions and norms that operate separately from one another, but in an increasing digitized world, opportunities to coordinate these mechanisms are beginning to emerge. Meanwhile, in their digital zakat-tax integration model, Dwianika et al. (2026) convey the interoperability in digital environment between zakat institutions and stakeholders, both taxpayers and tax authority. Data integration, behavioural incentives, and governance alignment can help to improve compliance, transparency, and the efficiency of the redistribution process, they say. This current discussion focuses on the necessity of moving away from the debate of digitalisation of zakat and taxes one level up and to a more general discussion of the concept of integrated Islamic fiscal governance.

Institutional coordination, conducive to effective fiscal management, could also be improved by digitalisation. Interoperable databases and secure digital platforms can be used to efficiently share information and reduce administrative duplication, oversee financial obligations, and social transfers. By analysing the data of the Islamic financial institutions in Pakistan, the study concludes that technology, organizational issues, and environmental factors play a crucial role in the adoption of digital banking integration for zakat services while also highlighting the institutional readiness and Shariah compliance as significant factors. This is particularly significant in the context of Islam-based economies, which include an increasing number of banking institutions, government institutions, and zakat institutions within digital spaces interwoven like puzzle pieces.



2.4 Research Gap

In spite of the ever-increasing number of publications and literature, detailed studies of the evolution of established digital fiscal governance frameworks curtailed by the significance of the concept of zakat, taxation, and financial technologies have been lacking recently. Previous studies contribute to the literature on digital zakat, blockchain applications, or Islamic FinTech, but do not discuss sufficient details about how this may affect the overall financial system. In a fragmented form, the implementation of digital services in the form of a fiscal ecosystem is required to be harmonized with regulations and interoperable, in addition to having accountability in handling the execution of the digital services.

3. Research Methodology

3.1 Research Design

The study was designed using quantitative, cross-sectional, and explanatory research design techniques to explore the convergence of zakat, taxation, and emerging financial technologies in digital fiscal governance in the Islamic economy. By using the quantitative approach, the study was able to utilize the standardized items of questionnaires to measure the perceptions of the respondents, as well as to statistically analyse the relationships among the researcher variables. In terms of data collection, the cross-sectional design was adopted, and the explanatory design was used to explore the linkages of digital zakat integration, digital taxation, accountability by blockchain, and artificial intelligence (AI) in financial analytics to the goal of fostering digital fiscal governance.

3.2 Population and Sample

The target audience comprised of those with knowledge or experience in taxation, zakat, Islamic finance, digital financial services, or fintech. The number of respondents for the study was 300 people. The respondents comprised taxpayers, zakat payers, Islamic finance practitioners, financial-sector professionals, fintech users, and people who are knowledgeable of digital payment systems. The analyses of descriptive statistics, reliability spreadsheet, correlation tests, and multivariate regression tests were made with a number of 300 observations, which proved sufficient. The participants had to be aged 18+ and have basic knowledge of zakat, taxation, Islamic finance, or digital financial technology.

3.3 Sampling Technique

It was an in-depth study of certain respondents who have digital financial services related knowledge and experiences combined with that of zakat and taxation or Islamic financial services in general, which was adopted purposely. The methodology allowed the researcher to secure the responses from the participants who, in turn, were able to offer informed views on the governance nature of digital. The participants were selected via professional circles, the financial community, Islamic finance circles, zakat circles, and web platforms. Special efforts were made to ensure that various samples were taken so as to capture various levels of interest in the digital transformation of fiscal systems, representing diverse professional backgrounds and levels of education.

3.4 Research Instrument

A structured questionnaire was used to gather data which comprised of two sections. The first section gathered information on socio-demographic characteristics such as gender, age, education, and professional background, along with any prior experience or knowledge of digital financial services and zakat and taxation. The second section assessed the big constructs in research by employing a five-point Likert scale, from strongly disagree to strongly agree. The questionnaire assessed four independent variables: Digital Zakat Integration, Digital Taxation, Blockchain-Enabled Transparency, and AI-Driven Financial Analytics. The DV was Digital Fiscal Governance. Its indicators were based on fiscal transparency, accountability, administrative efficiency, compliance, accessibility, institutional coordination, and equitable resource allocation.

3.5 Data Collection Procedure

The researcher used an online structured questionnaire to collect the data. Respondents were provided with information regarding the intent of the study, its voluntary nature, maintaining confidentiality, and how the information gathered would be used for academic purposes before filling out the questionnaire. Consent of participation was done prior to involvement. The survey was anonymous with no requirement for



unnecessary personal data being given. The data was collected until 300 valid responses were received. The use of the data is limited to questionnaires that were completed in full or answered to a varying degree to ensure quality and consistency.

3.6 Data Analysis

SPSS was used for collecting results and analysed. Descriptive statistics such as standard deviations, means, frequencies, and percentages were used to summarize the demographic data and responses of the participants. The measure of reliability for each construct was Cronbach's alpha. Pearson correlation analysis was conducted to examine the direction and strength of the relationships between digital zakat integration, digital taxation, transparency enabled by blockchain, artificial intelligence financial analytics, and digital fiscal governance.

Then multiple linear regression was carried out to identify which independent variables made a significant contribution to the prediction of digital fiscal governance. The regression model was expressed as:

$$DFG = \beta_0 + \beta_1 DZI + \beta_2 DT + \beta_3 BET + \beta_4 AFA + \varepsilon$$

where DFG stood for Digital Fiscal Governance, DZI for Digital Zakat Integration, DT for Digital Taxation, BET for Blockchain-Enabled Transparency, AFA for AI-Driven Financial Analytics, β_0 for the constant, β_1 – β_4 for the regression coefficients, and ε for the error term. The results were presented in terms of R and R², adjusted R², F statistic, beta coefficient, t value, and significance level. A significance level of 0.05 was used to assess statistical significance.

3.7 Diagnostic Tests

The regression results were analysed after performing several diagnostic tests. Multicollinearity of the independent variables was evaluated by studying the variance-inflation factors (VIF) and tolerance values. A Durbin-Watson statistic was used to evaluate the independence of residuals. The residual plots were tested for linearity and homoscedasticity while residual distribution was used for normality. The use of these test procedures allowed for testing if the premises of multiple regression were reasonably met and increased the confidence of the statistical results.

4. Results and Analysis

4.1 Respondents' Profile

The study analysed data collected from 300 respondents who possessed knowledge or experience related to zakat, taxation, Islamic finance, digital financial services, or fintech.

Table 1

Demographic Characteristics of the Respondents (N = 300)

Demographic Characteristic	Category	Frequency (f)	Percentage (%)
Gender	Male	174	58.0
	Female	126	42.0
Age	18–30 years	102	34.0
	31–40 years	96	32.0
	41–50 years	63	21.0
	Above 50 years	39	13.0
Education	Bachelor's degree	118	39.3
	Master's degree	129	43.0
	Doctoral degree	53	17.7
Professional Background	Taxation / Public Finance	68	22.7
	Islamic Finance / Zakat	72	24.0
	Banking / FinTech	81	27.0
	Other Relevant Fields	79	26.3
Digital Finance Experience	Less than 2 years	61	20.3
	2–5 years	109	36.3
	6–10 years	82	27.3
	More than 10 years	48	16.0

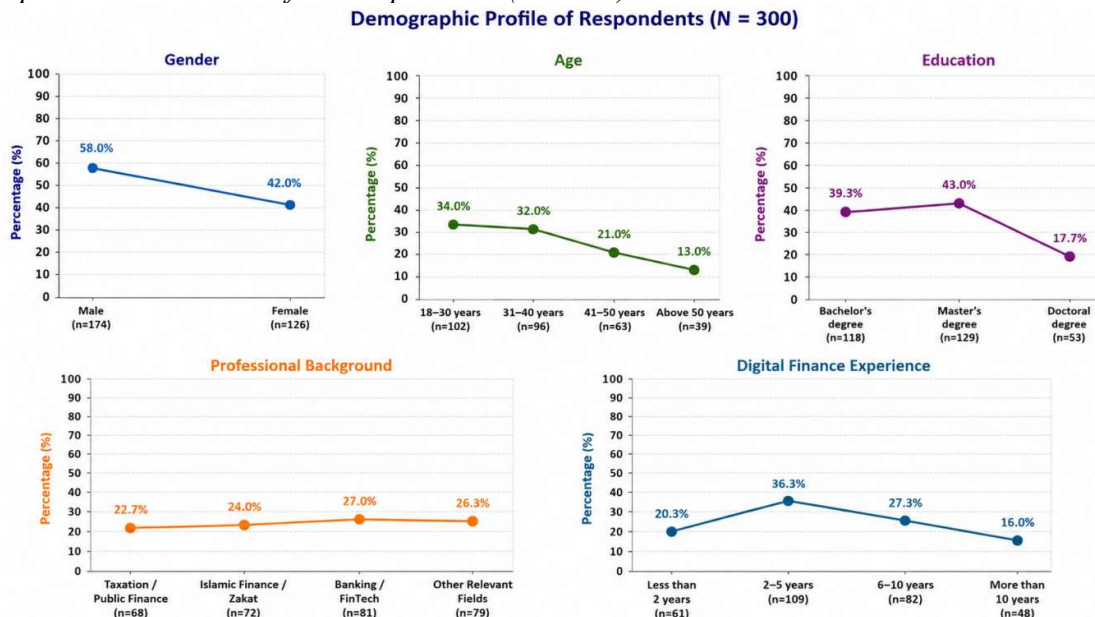


Note. N = 300.

As shown in Table 1, the total number of respondents was 300, 58.0% of which were male respondents while 42.0% were females. The age distribution exhibited that the age group of 18–30 years old (34.0%) is the most dominant age group followed by 31–40 years old (32.0%). The respondents ages ranged from 40–49 years, representing a total of 21.0% with more than 50 years being 13.0%. Education status also showed a relatively high level of academic qualifications of the participants. The most common education level possessed by the respondents was a master's degree (43.0%), followed by a bachelor's degree (39.3%) and a doctoral degree (17.7%). The professional distribution was made up of representatives from the following fields: 22.7% taxation and public finance, 24.0% Islamic finance and zakat, 27.0% banking and FinTech, and 26.3% other relevant areas. The findings also showed high level of exposure in digital financial services among the students. Thirty-six participants (36.3%) had 2–5 years of experience in digital finance while 27 (27.3%) had 6–10 years of experience. Another 16.0% had over ten years' experience and 20.3% had less than two years. The demographic profile revealed that the sample consisted of individuals who had appropriate experiences and education around digital fiscal governance to be able to give informed assessments.

Figure 1

Demographic Characteristics of the Respondents (N = 300)



Note. The figure presents the demographic profile of respondents across gender, age, education, professional background, and digital finance experience.

4.2 Descriptive Statistics of Study Variables

Descriptive statistics were calculated to determine the central tendency and variability of the five major study variables.

Table 2

Descriptive Statistics of the Study Variables

Variable	N	Mean	Standard Deviation
Digital Zakat Integration	300	3.91	0.71
Digital Taxation	300	3.84	0.74
Blockchain-Enabled Transparency	300	3.76	0.79
AI-Driven Financial Analytics	300	3.88	0.73
Digital Fiscal Governance	300	3.95	0.69

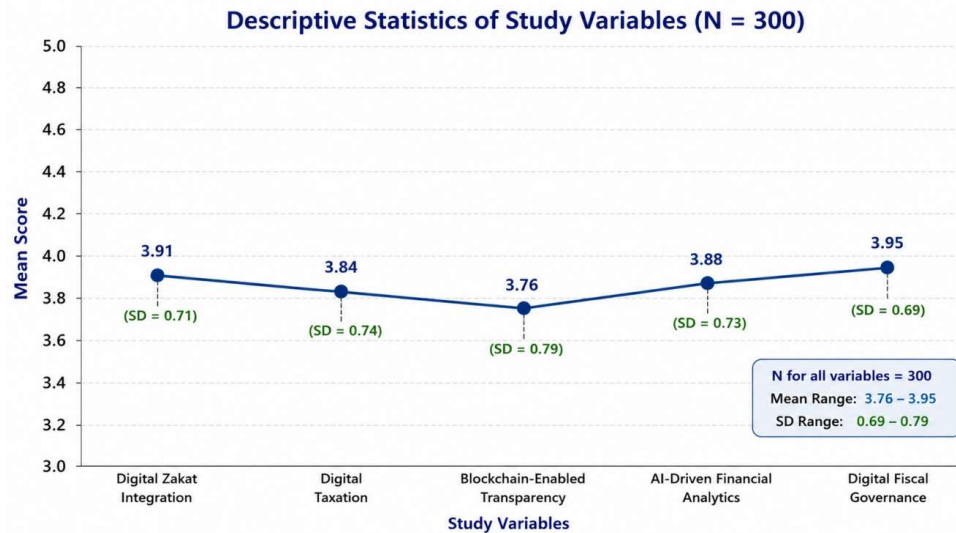
Note. N = 300.



The mean scores for all of the study variables are all reported above the neutral point of the five-point Likert scale, and are presented in Table 2. Respondents' overall perceptions of the impact of digital technologies on fiscal transparency, accountability, efficiency, and compliance were the most positive, as reflected by the highest mean score ($M = 3.95$, $SD = 0.69$) scored in Digital Fiscal Governance. The mean score for the category of Digital Zakat Integration was 3.91 which is quite high, indicating an awareness of the potential of digital platforms in modernizing the process of collecting, giving, and monitoring the distribution of zakat. Respondents saw AI as an important part of modern fiscal management, with a mean rating of 3.88 ($SD = 0.73$) by AI-Driven Financial Analytics. The mean score of Digital Taxation was 3.84 ($SD = 0.74$) showing that electronic tax administration and supportive reminders of filing taxes are perceived favourably. The comparatively lowest mean score was observed for Blockchain-Enabled Transparency ($M = 3.76$; $SD = 0.79$) but it was still higher than the scale's halfway mark. Standard deviation values were between 0.69 or 0.79, which meant that the responses were moderately variable.

Figure 2

Descriptive Statistics of the Study Variables



Note. The figure presents the mean scores and standard deviations for the five major study variables.

4.3 Correlation Analysis

Table 3

Pearson Correlation Matrix of Study Variables

Variables	DZI	DT	BET	AFA	DFG
Digital Zakat Integration (DZI)	1				
Digital Taxation (DT)	0.61	1			
Blockchain-Enabled Transparency (BET)	0.54	0.58	1		
AI-Driven Financial Analytics (AFA)	0.57	0.62	0.59	1	
Digital Fiscal Governance (DFG)	0.68	0.65	0.60	0.63	1

Note. $p < 0.01$.

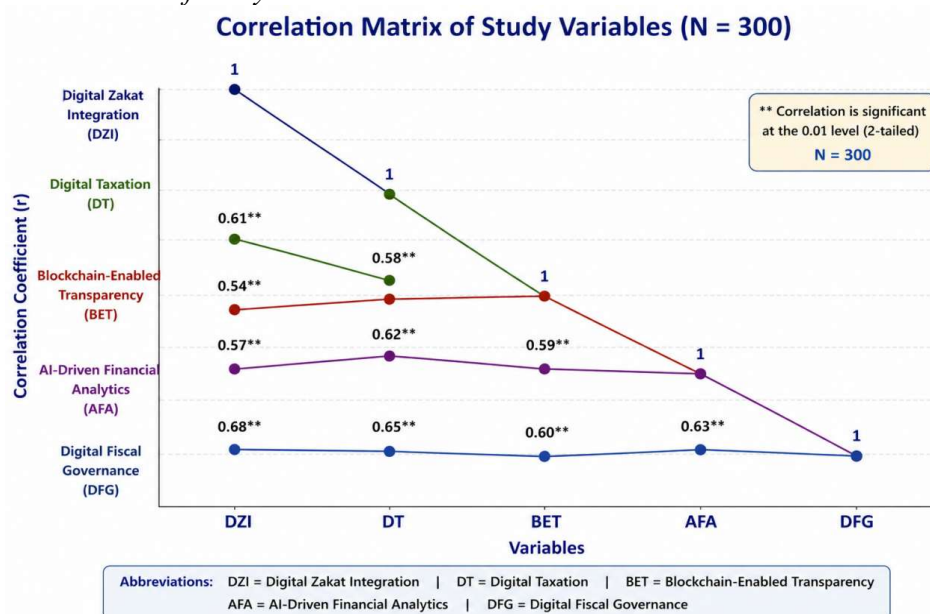
The results from Table 3 revealed there were positive relationships between all independent variables and digital fiscal governance. Highest correlation with Digital Zakat Integration was seen with Digital Fiscal Governance ($r = 0.68$, $p < 0.01$). Digital Taxation also showed a positive relationship with Digital Fiscal Governance ($r = 0.65$, $p < 0.01$), pointing to a positive link between Digital Tax and perceived improvements in fiscal efficiency and accountability. Digital Fiscal Governance had a positive correlation with Blockchain-Enabled Transparency ($r = 0.60$, $p < 0.01$). The finding showed that there was a correlation between increases in the degrees of transaction traceability, transaction verification, and transaction transparency and fiscal governance outcomes with the use of blockchain. Otherwise, AI-Driven Financial Analytics significantly



positively correlated with DFG ($r = 0.63$, $p < 0.01$). Among the independent variables, the correlation was also found to be positive ranging from 0.54 to 0.62. These linkages suggested digital zakat integration, digital taxation, blockchain transparency, and the application of AI for analytics working in a connected technology landscape. But all the coefficients were under 0.80, which also indicated that the situation of severe multicollinearity was not likely to be significant. The correlation results thus served as preliminary indications for the multiple regression analysis of the four technological dimensions' overall predictive contribution.

Figure 3

Pearson Correlation Matrix of Study Variables



Note. The figure presents the correlation coefficients among the study variables.

4.4 Multiple Regression Analysis

Table 4

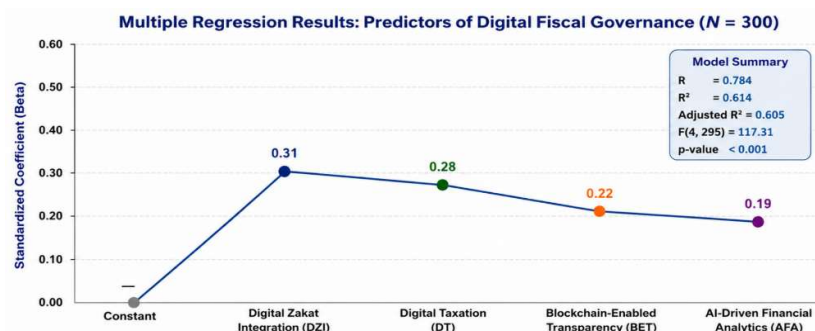
Multiple Regression Analysis Predicting Digital Fiscal Governance

Predictor	B	Std. Error	Beta (β)	t	p-value
Constant	0.742	0.164	—	4.524	< 0.001
Digital Zakat Integration	0.301	0.052	0.31	5.79	< 0.001
Digital Taxation	0.273	0.054	0.28	5.06	< 0.001
Blockchain-Enabled Transparency	0.214	0.061	0.22	3.51	< 0.01
AI-Driven Financial Analytics	0.188	0.059	0.19	3.19	< 0.01

Note. $R = 0.784$; $R^2 = 0.614$; $F = 117.31$; $p < 0.001$.

Figure 4

Multiple Regression Analysis Predicting Digital Fiscal Governance





Note. The figure presents the regression coefficients for the predictors of Digital Fiscal Governance.

4.5 Multicollinearity and Regression Diagnostics

Variance Inflation Factor (VIF) and tolerance values were examined for multicollinearity, while the Durbin-Watson statistic was used to assess residual independence.

Table 5

Regression Diagnostic Statistics

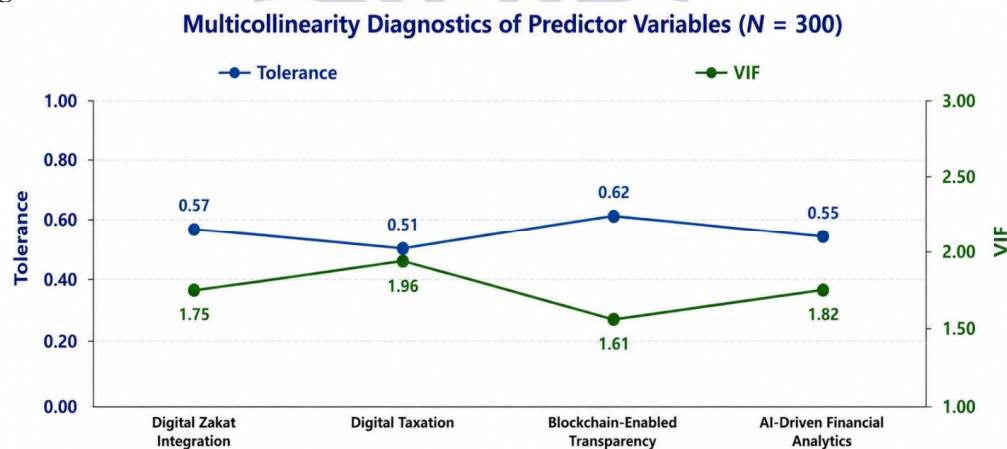
Predictor	Tolerance	VIF
Digital Zakat Integration	0.57	1.75
Digital Taxation	0.51	1.96
Blockchain-Enabled Transparency	0.62	1.61
AI-Driven Financial Analytics	0.55	1.82
Durbin-Watson	—	1.89

Note. N = 300.

As per Table 5, the values of the VIF were found from 1.61 to 1.96 and those of the tolerance level were found from 0.51 to 0.62. These results showed that there were no major multicollinearity problems with the independent variables. VIF values were much lower than required criteria indicating that there was little cause for concern that the regression coefficient would be affected significantly by highly correlated predictor variables. AI-Driven Financial Analytics (VIF 1.82), Digital Zakat Integration (VIF 1.75), and Blockchain-Enabled Transparency (VIF 1.61) also had significant contributions, with the highest VIF value being Digital Taxation (VIF 1.96). The Durbin-Watson value of 1.89 also suggested good residual independence. The residual assessment was also for this regression model and agreed with the suitability of this regression model in examining the relationships among the variables. Overall, the diagnostic data revealed no serious concerns with the model in terms of multicollinearity and independence of residuals. Therefore, from a statistical perspective, the regression results were found to be sufficient to interpret the contribution of digital zakat integration, digital taxation, blockchain-aided transparency, and AI-based financial analytics for digital fiscal governance.

Figure 5

Regression Diagnostic Statistics



Note. The figure presents the tolerance and VIF values for the predictor variables.

5. Discussion

Based on the results obtained, it was proven that digital transformation was one of the issues in modern fiscal governance in Islamic economies. As far as the descriptive results, the perceptions of Digital Fiscal Governance (M = 3.95), Digital Zakat Integration (M = 3.91), and AI-Driven Financial Analytics (M = 3.88) were relatively high, indicating that the governance value of digital technologies was accepted by most of the participants. The outcomes aligned with the recent findings that digital platforms can enhance the efficiency,



accessibility, transparency, and accountability of zakat and Islamic social-finance institutions, which are fundamental pillars in rationalizing its functions. The results apply to the evidence recently uncovered on the role digital platforms can play in improving the efficiency, accessibility, transparency, and accountability of the three key pillars for a rationalization of zakat and Islamic social-finance institutions—namely, ownership, distribution, and management. Ihsan and Lisnaya (2025) reported benefits from digital platforms through better efficiency of raising funds and giving them, and real-time reporting and empowerment. Majduddin et al. (2025) pointed out that its digitalisation may enhance the transparency and accountability of Islamic social financing.

Among the factors above, the best correlation coefficient obtained was for Digital Zakat Integration ($\beta = 0.31, p < 0.001$), which means Digital Zakat Integration is the most contributing factor among all factors to Digital Fiscal Governance. Based on the result, it can be seen that the implementation of electronic collection, automatic calculation, the implementation of digital identification of beneficiaries, Internet-based payments, and introduction of monitoring system in the institutions would be able to improve the coordination activities of the institution and enhance the visibility of financial flows involved in the zakat. This opinion is also supported by recent studies addressing the feasibility of introducing electronic usage of zakat for increasing access to financial services through electronic payments and register of beneficiaries, particularly disadvantaged groups (Hidayatullah et al., 2025). The outcome also matched the preliminary evidence, that knowledge governance and data protection for digital zakat innovation should be supported by technology as well as improvements of distance learning processes across digital zakat practice, principles of user experience (UX), and trust-building, which are elements that interlace (Ilhamiwati et al., 2026).

Additionally, digital tax had a high positive impact ($\beta = 0.28, p < 0.001$); the high link strength helped show that e-government fiscal aspects have played a vital role in the tax administration system. The discovery revealed that technology is capable of streamlining administrative function and institutional monitoring by relying on electronic filing, automated payment, electronic reporting, and technology-assisted compliance. The result resonates even more with Islamic economies whereby the digitalisation of taxation and zakat would help better exploit the potential of minimising institutional disintegration, thus sustaining both systems on the legal and religious ground. Recently proposed by Dwianika et al. (2026) is an interoperability digital ecosystem comprising of zakat agencies, taxpayers, fintech platforms, and tax authorities with data integration and data governance alignment to provide a governing mechanism from the aspect of zakat compliance and redistribution process.

The findings also revealed very high CAs associated with Blockchain-Enabled Transparency ($\beta = 0.22, p < 0.01$) and AI-Driven Financial Analytics ($\beta = 0.19, p < 0.01$). Even though the coefficient values of the two technologies were not as penetrated as that of the digital zakat integration and digital taxation, both technologies had a significant role in the regression model. This indicated that blockchain may have a role in bolstering the traceability and accountability of transactions, and that AI may be useful in detecting fraud, financial forecasting, compliance evaluation, and decision-making with evidence. The current research on the implementation of AI in governance of zakat demonstrates that technological readiness and/or institutional credibility, organizational capacity, and environmental context are important in the successful application of this technology in this respect (Wahab et al., 2026).

The regression model explained 61.4% of variance ($R^2 = 0.614$) of Digital Fiscal Governance and was statistically significant in explaining the significant relationship between the model and all four of the predictive variables. The relatively high level of explanatory power suggested that adoption of digital zakat, digital taxation, transparency through blockchain, and the financial analysis aspect of artificial intelligence were complementary rather than one-off technologies. Ilhamiwati et al. (2026) and Nasution (2025) have identified cybersecurity, data protection, regulatory restrictions, digital literacy, and organization capability and Sharia compliance as the remaining issues in the field of Islamic finance and zakat.

6. Conclusion

The study indicates that digital transformation could be effectively propped by integrating it into the fostering of technological innovations and institutional accountability, transparency, and social-finance



agendas in Islamic economies, thereby significantly contributing to improving fiscal governance. The possible digitization of zakat and taxation, among others, could result in a more efficient way to collect tax revenues, access to financial services, monitoring, and strengthen their coordination between the different tax institutions. Blockchain and AI can be applied to give financial data more transparency, trust, prevent fraud, predict, and make financial decisions. The rapid development of digital tools required much more than technology solutions for enabling strong and effective fiscal governance, such as cybersecurity, information security, regulatory coordination, digital literacy, institutional capacity, ethical considerations, and Shariah compliance. The study pointed out the importance of developing digital fiscal architecture that is interconnected and participatory to appropriate the public revenue management in a trustful, accountable, and equal process in allocation of the resources in Islamic economic system (social-finance).

Author Contributions

All authors participated in ideation, development, and writing the manuscript. All authors read and approved the final manuscript.

Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this article.

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Informed Consent

Not applicable. This study did not involve human participants requiring informed consent. The data used in this research were obtained from anonymized financial records with all personally identifiable information removed. No private or sensitive information was collected from individuals.

Data Availability

The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request. Due to privacy and confidentiality considerations, raw financial data may not be publicly distributed but can be accessed through the corresponding author with appropriate data use agreements and institutional approvals. The authors are committed to transparency and will provide detailed methodological information, model specifications, and analysis protocols upon request.

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