

DIGITAL FINANCIAL TRANSPARENCY AND SUSTAINABLE PUBLIC GOVERNANCE: EVIDENCE FROM LOCAL GOVERNMENTS IN WEST JAVA PROVINCE

Maulida Salmi Utie¹, Muthia Ulfa², Imanuel Rahel Riana Dalimunthe³

¹⁻³⁾ Politeknik Negeri Jakarta, Indonesia

E-mail: ¹⁾ maulida.salmiutie@akuntansi.pnj.ac.id ,

²⁾ muthia.ulfa@lecturer.pnj.ac.id, ²⁾ imaniel.rahel.riana.dalimunthe.ak24@stu.pnj.ac.id

Submitted:
12 July 2026

Revised:
21 July 2026

Accepted:
12 August 2026

Abstract

Digital financial transparency is crucial for achieving the Sustainable Development Goals (SDGs), particularly for building accountable and trustworthy public institutions. Limited studies examine whether digitalization actually delivers accessible financial information and whether such transparency strengthens sustainable public governance. This study addresses that gap by constructing an original, multi-dimensional, portal-level Digital Financial Transparency Index (DFTI) and linking it to sustainable public governance, an association not previously tested at the Indonesian subnational level. Using a quantitative, explanatory design, financial management and public information portals are assessed through content analysis. Twenty-one indicators covering organizational information, financial transparency, and website accessibility are aggregated into the DFTI. Sustainable public governance is proxied by the 2024 electronic-based government system (SPBE) index, the only nationally standardized, externally assessed, and annually published measure of digital public administration maturity in Indonesia. Ordinary least squares regression tests the hypothesis, complemented by Spearman correlation as a non-parametric robustness check suited to the small city and regency subsamples. The findings show DFTI has a positive and significant effect on SPBE ($\beta = 0.026$; $p = 0.032$). The effect operates through content rather than appearance: among regencies, organizational information and financial transparency correlate significantly ($p < 0.05$) with SPBE, website accessibility does not. The results provide recommendations that local governments should adopt a standardized minimum financial-disclosure content and prioritize the weakest indicators, which are raw data, citizen-friendly budget summaries, and personal data protection. Also the provincial government should channel budget-capacity support to low-DFTI regencies, where transparency and maturity are most strongly associated with budget resources to advance SDG 17.

Keywords: Digital Transparency Financial Index, Public Sector, Financial Information, Sustainable Public Governance

1. INTRODUCTION

Digital transformation in the public sector has become a major pillar in realizing effective, responsive, and trustworthy governance. Prior studies indicate that digital transparency in local governments is strongly influenced by the maturity of e-government, the quality of financial reports, and the strength of public sector accountability systems [1].

The use of digital technology in regional financial information systems has been shown to improve operational efficiency and the accountability of financial reporting [2], and to accelerate the timely presentation of financial statements [3]. At the international level, the accessibility of local government financial reporting through the internet has long been recognized as a key dimension of financial transparency [4], while evidence on whether e-government genuinely leads to more accountable and transparent local governments remains mixed [5, 6].

However, the direction of current e-government development in Indonesia still focuses primarily on the digitalization of administrative procedures. Under the global agenda of the Sustainable Development Goals (SDGs), public governance is expected to actively promote sustainable development. This is relevant to SDG 17, which emphasizes data transparency for building strong partnerships and fostering public trust [7]. Without adequate evaluation, digitalization risks remaining merely administrative without genuinely improving the quality of information available to citizens or strengthening public trust.

Research that specifically explores digital financial transparency within a sustainable public governance framework is still very limited. Most previous studies focus on optimizing basic e-government public services in general [8], and little is known about the actual condition of digital financial transparency at the subnational level in supporting the sustainability pillar. West Java Province is chosen as the research setting for academic, empirical, and methodological reasons: it has one of the largest numbers of local governments in Indonesia (18 regencies and 8 cities), providing sufficient variation in units of analysis; it is known as one of the most active regions in developing e-government and open data; and its website-based disclosure can be assessed systematically and consistently across regencies and cities [9].

1.1 Agency and Legitimacy Perspectives on Public Sector Transparency

In the public sector context, agency theory positions citizens and legislatures as principals and government executives as agents. Information asymmetry between the two creates incentives for governments to disclose financial information as a monitoring and bonding mechanism. Transparency of budget documents, financial statements, and performance reports reduces asymmetry and disciplines the use of public resources [4], [10]. From a legitimacy perspective, governments disclose information through websites and open data portals to demonstrate compliance with public expectations and regulatory mandates, such as Law No. 14 of 2008 concerning Public Information Disclosure [11], thereby maintaining public trust [12].

1.2 Digital Financial Transparency

Digital financial transparency refers to the extent to which governments disseminate budgetary and financial information through digital channels in an accessible, complete, and

timely manner. Internet financial reporting studies have operationalized this concept through disclosure indices covering the availability of budgets, realization reports, and audited financial statements, as well as accessibility and usability attributes of government websites [13]. In Indonesia, the development of a regional budget transparency index shows persistent variation in disclosure practices across local governments [9], [14]. Prior literature has key limitations, which are e-government studies typically measure service digitalization or portal maturity without assessing the substantive financial content disclosed [5, 8, 15], and financial-accountability studies assess disclosure quality but rarely link it to a standardized, externally validated indicator of digital governance maturity [1, 3, 14].

1.3 Sustainable Public Governance

Sustainable public governance is understood as governance that is accountable, effective, and oriented toward long-term public value, consistent with SDG 17. In the Indonesian setting, it can be proxied by the Electronic-Based Government System (SPBE) index, which captures the maturity of digital governance [9]. The SPBE index is adopted as the proxy for some reasons. First, it is the only measure of governance maturity that is nationally standardized and applied uniformly to every local government in Indonesia, which makes cross-jurisdiction comparison possible. Second, it is externally assessed and annually published by the Ministry of Administrative and Bureaucratic Reform rather than self-reported, which reduces measurement bias. Third, its assessment domains cover internal governance, risk and policy, public services, and institutional capacity, which correspond closely to the accountability and effectiveness components of sustainable public governance and to the institutional-capacity logic of SDG 17 [7].

1.4 Research Context

Based on agency and legitimacy arguments, local governments with higher digital financial transparency are expected to exhibit stronger accountability and more mature digital governance. Greater disclosure reduces information asymmetry, invites external scrutiny, and signals commitment to good governance, which should be reflected in higher performance accountability evaluations and digital government maturity. Accordingly, the research questions are formulated as follows: (1) What is the level of digital financial transparency of local governments in West Java? (2) Does digital financial transparency affect sustainable public governance? To answer these questions, this study aims to measure and classify the digital financial transparency of local governments in West Java using a website-based index and to test the effect of digital financial transparency on sustainable public governance indicators. Therefore, the following hypotheses are proposed:

H1. Digital financial transparency has a positive effect on the electronic-based government system maturity (SPBE) of local governments in West Java Province.

This study contributes in three ways. First, it integrates e-government and the SDGs within the context of local government governance. Second, it develops the Digital Financial Transparency Index (DFTI) for Indonesian local governments. Third, it provides empirical evidence on the relationship between digital transparency and the sustainability of public sector governance. The research gap of the study can be stated explicitly on two points. First, in contrast to previous e-government transparency research, which measures the existence of online services or the maturity of portals [5, 8, 15, 17], the DFTI measures the substantive financial content actually disclosed across twenty-one indicators and two portal types per government unit, so that formal and substantive transparency can be distinguished. Second, unlike prior public financial accountability research, which stops at the disclosure index [1, 3, 14], this study connects that index to an externally assessed national governance maturity indicator, providing the first subnational Indonesian evidence that substantive financial disclosure is associated with digital governance maturity.

2. RESEARCH METHOD

2.1 Research Design

This study applies a quantitative approach with an explanatory research design. The first stage answers research questions one and two through quantitative content analysis of local government digital portals, producing a descriptive mapping and classification of digital financial transparency. The second stage tests the effect of digital financial transparency on sustainable public governance using ordinary least squares (OLS) regression analysis of secondary data with Python. In the final stage, the Spearman test is used to clarify the relationship between selected independent variables and the dependent variable; the independent variables examined at this stage are decided after the regression results are obtained. The two techniques are complementary rather than redundant, and each answers a different question. OLS is used for hypothesis testing because the dependent variable is continuous, the effect of DFTI must be isolated while holding audit opinion and human development constant, and the classical assumptions of normality, homoscedasticity, non-autocorrelation, and low multicollinearity are formally verified before interpretation. OLS on the pooled sample of 26 units, however, cannot show which dimension of transparency drives the effect or whether the relationship holds equally for cities and regencies, and splitting the sample yields subsamples ($n = 8$ and $n = 18$) too small for reliable parametric estimation. Spearman rank correlation is therefore used as a non-parametric robustness and mechanism check, since it assumes neither normality nor linearity, is robust to outliers and to the bounded 1.00-5.00 SPBE scale, and remains valid in small subsamples. Convergence between the two, that is a significant OLS coefficient accompanied by consistent rank correlations, strengthens confidence that the finding is not an artifact of functional form.

2.2 Population, Sample, and Data Sources

The population comprises all local governments in West Java Province, namely the provincial government and 26 regency/city governments. The observation covers government units whose official websites and public information portals could be identified and accessed during the observation period, yielding 52 portal-level observations across 26 government units. For each government, at least two portals are assessed: (1) the financial management agency website (BPKAD/BKAD) or the official government website hosting financial information, and (2) the public information portal (PPID) or open data portal. Secondary data are obtained from official government websites, regional open data portals, published local government financial statements and budget documents, and official publications of SPBE Year 2024 indices issued by the Ministry of Administrative and Bureaucratic Reform and related institutions.

2.3 Operationalization of Variables

The independent variable is the Digital Financial Transparency Index (DFTI), constructed through index scoring of website content [14]. Each portal is assessed on twenty-one indicators grouped into three dimensions: organizational information, financial information transparency, and website accessibility. Indicators are scored dichotomously based on availability (1 = available, 0 = not available). Portal scores are summed (maximum score of 7 per portal) for each dimension, then dimension scores are averaged for each government unit, and summed as DFTI for each government unit as presented in Figure 1.

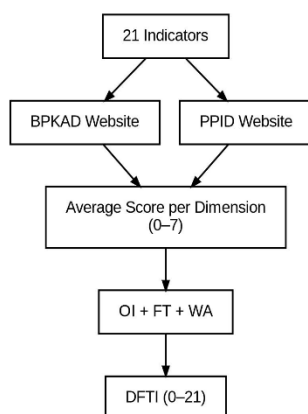


Figure 1. Digital Financial Transparency Index (DFTI) Scoring Model

The dependent variable is sustainable public governance, proxied by the SPBE index Year 2024 (1.00-5.00) reflecting the maturity of electronic-based government administration. The independent control variables consist of the BPK audit opinion (BPK), and the Human Development Index (IPM). In addition, Local Government Revenue (LGR) and Goods and Services Expenditure (GSE) are considered in the Spearman correlation

analysis. These variables were obtained from publicly available open-source data for the year 2024 and collectively represent non-technological dimensions of the Electronic-Based Government System (SPBE), capturing broader institutional, governance, and socioeconomic contexts that may influence SPBE performance beyond technological development.

2.4 Data Analysis Techniques

Data analysis begins with descriptive statistics (mean, standard deviation, minimum, maximum, and frequency distribution) to portray the level and variation of digital financial transparency across regencies and cities as well as across portal types. Classical assumption tests, namely normality, multicollinearity, heteroscedasticity, and autocorrelation, are conducted to ensure that the data satisfy the requirements of OLS estimation. The hypotheses are then tested using linear regression with the following model:

$$SPBE_i = \alpha + \beta_1 DFTI_i + \beta_1 BPK + \beta_1 IPM + \varepsilon_i \text{ (Model 1)}$$

where DFTI is the normalized digital financial transparency score of government unit i , and ε is the error term. The significance of β_1 ($p < 0.05$) indicates support for the hypothesis. Interpretation of the regression results is complemented by an exploration of inter-regional implementation variation to enrich the discussion of the findings.

3. RESULTS AND DISCUSSION

3.1 Descriptive Statistics of the DFTI

There are two portals (PPID and BPKAD) assessed for each of the 26 government units. Based on observation, 9 of 52 portals are inactive or cannot be accessed (scored = 0). Table 1 presents the descriptive statistics of the DFTI scores. The average DFTI score is approximately 11.33 out of a maximum of 21, indicating a moderate level of digital financial transparency overall. However, there is significant variation among government units, with scores ranging from 0.00 to 19.00 and a standard deviation of 6.45. The score distribution shows a negative (left) skewness, suggesting more units have above-average scores. To formally assess whether there is a statistically significant difference in the mean DFTI scores between BPKAD and PPID sources, an independent-sample t-test was conducted, revealing a t-statistic of -1.686 and a p-value of 0.099. Given a significance level (alpha) of 0.05, this p-value indicates no statistically significant difference in the mean DFTI scores between the BPKAD and PPID websites. Therefore, the average scores of both websites can be used as the DFTI.

Table 1. DFTI Descriptive Statistics

Statistic	Value
Count (n)	52
Mean	11.327
Std. Dev.	6.447
Min	0.000

25% (Q1)	7.750
50% (Q2 / Median)	14.000
75% (Q3)	17.000
Max	19.000
Additional Statistic	
Variance	41.56
Skewness	-0.77
Kurtosis	-0.83

Source: Data Processed, 2026

3.2 Transparency Level Classification of Local Governments

Figure 2 displays the mean DFTI scores for all government units, sorted from highest to lowest, with each bar color-coded by transparency category. Prior to visualization, each government unit was classified into one of five transparency categories based on its average DFTI score: Highly Transparent (DFTI ≥ 16.8), Transparent (DFTI ≥ 12.6), Moderately Transparent (DFTI ≥ 8.4), Less Transparent (DFTI ≥ 4.2), and Not Transparent (DFTI < 4.2). At the top of the chart, Kabupaten Bandung, Kabupaten Bogor, Kota Cimahi, and Kabupaten Purwakarta scored highest and were classified as Highly Transparent, while other units, such as Kabupaten Majalengka and Kabupaten Bandung Barat, showed significantly lower performance.

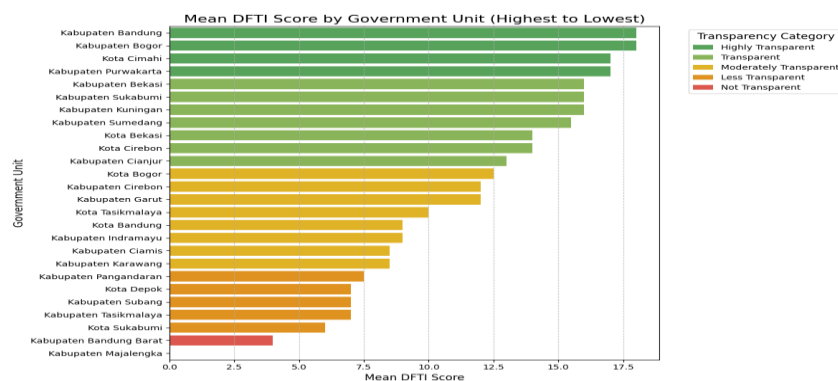


Figure 2. DFTI Score by Government Unit (Highest to Lowest)

3.3 Regression Results and Hypothesis Testing

Table 2. SPBE vs DFTI (Regression Results)

Panel A - Model Fit				
R-squared	0.489	Adj. R-squared	0.420	
F-statistic	7.025	Prob (F-statistic)	0.0017	
Number Observations	26	Df Model / Df Residual	3 / 22	
Panel B - Regression Coefficients				
Variable	Coef. (β)	Std. Err.	t	p-value
Constant	3.909	0.053	73.769	0.000
DFTI	0.026	0.011	2.283	0.032
BPK	0.113	0.063	1.777	0.089
IPM	0.037	0.012	3.016	0.006

Source: Data Processed, 2026

Table 2 reports the OLS estimates of Model 1, in which the SPBE index is regressed on DFTI together with the BPK audit opinion and the Human Development Index (IPM) as control variables; the revenue- and expenditure-related variables (LGR and GSE) are examined separately through the non-parametric analysis in the Spearman Correlation Tests subsection. The model is statistically significant overall ($F = 7.025$; $p = 0.002$) and explains a substantial share of the variation in digital government maturity, with an R-squared of 0.489 and an adjusted R-squared of 0.420.

The coefficient of DFTI is positive and statistically significant ($\beta = 0.026$; $t = 2.283$; $p = 0.032 < 0.05$). Holding other variables constant, each additional point on the 21-point DFTI scale is associated with an increase of approximately 0.026 in the SPBE index (1.00-5.00 scale). This result provides empirical support for H1: local governments in West Java Province with higher digital financial transparency exhibit significantly higher electronic-based government system maturity. Among the control variables, IPM also has a positive and significant effect ($\beta = 0.037$; $t = 3.016$; $p = 0.006$). The BPK audit opinion is positively associated with SPBE, but significant only at the 10% level ($\beta = 0.113$; $t = 1.777$; $p = 0.089$). The VIF values (1.02 for DFTI, 1.01 for BPK, 1.03 for IPM) indicate the three predictors are essentially orthogonal, so the significant effects of DFTI and IPM are not artifacts of multicollinearity. The intercept of 3.909 ($p < 0.001$) lies within the “Very Good” range of the official SPBE classification.

Classical assumption tests were conducted to ensure the validity of the OLS estimates. The histogram of residuals shows an approximately symmetric, bell-shaped distribution, and the Q-Q plot points lie close to the reference line, confirmed statistically by the Omnibus test ($p = 0.711$) and the Jarque-Bera test ($JB = 0.284$; $p = 0.868$). The plot of residuals against fitted values shows a random scatter with no funnel-shaped pattern, satisfying the homoscedasticity assumption. The Durbin-Watson statistic (2.049) indicates the absence of autocorrelation, and all VIF values are far below the conventional threshold of 10, with a low condition number (5.78). These diagnostics confirm that the OLS estimates are valid and reliable.

3.4 Spearman Correlation Tests

To explore in greater depth which specific relationships shape SPBE as an indicator of SDG 17, Spearman rank correlations were employed, a technique appropriate for the small subsamples of cities ($n = 8$) and regencies ($n = 18$) because it does not require normality or linearity and is robust to outliers. Figure 3 visualizes the DFTI-SPBE association separately for cities and regencies using locally weighted (LOWESS) fits. The positive slope is clearly visible for regencies, whose SPBE scores rise with increasing DFTI across almost the entire index range, while cities cluster at relatively high SPBE values regardless of DFTI, suggesting the regression finding is driven primarily by variation among regencies.

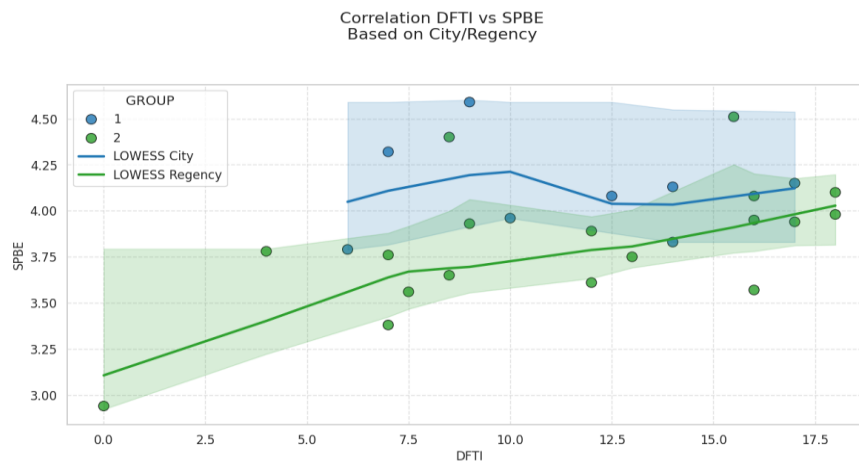


Figure 3. Correlation between DFTI and SPBE by Government Type with LOWESS Fit

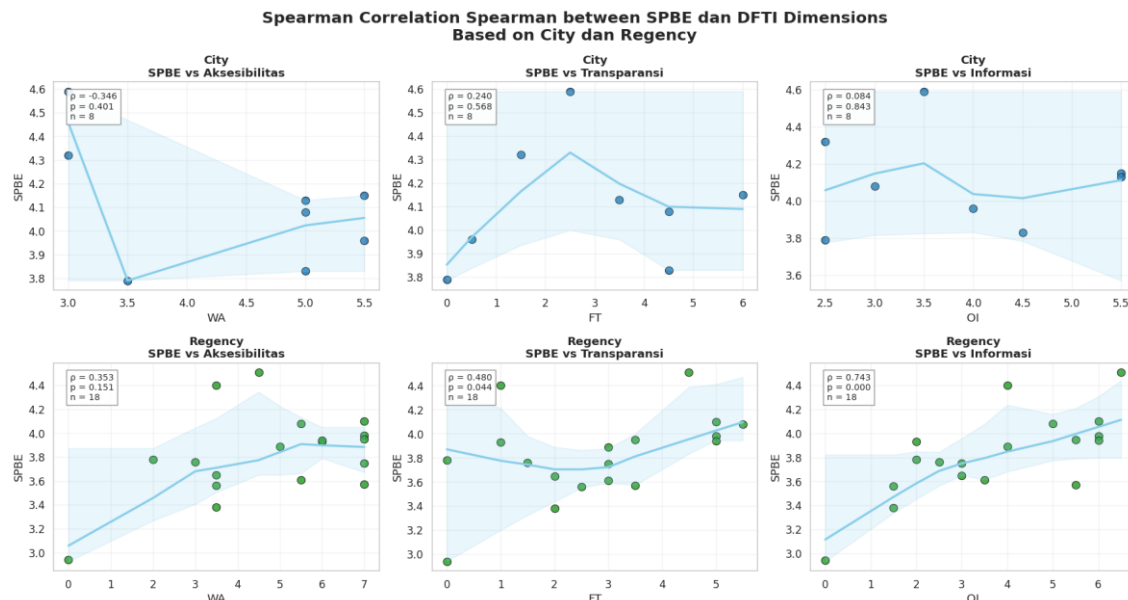


Figure 4. Spearman Correlation between SPBE and the DFTI Dimensions by Government Type

Figure 4 relates SPBE to the three DFTI dimensions separately for cities and regencies. For cities, none of the dimensions is significantly correlated with SPBE (WA: $\rho = -0.346$, $p = 0.401$; FT: $\rho = 0.240$, $p = 0.568$; OI: $\rho = 0.084$, $p = 0.843$). For regencies, by contrast, organizational information shows a strong, highly significant positive correlation with SPBE ($\rho = 0.743$; $p < 0.001$), and financial information transparency is also significantly correlated ($\rho = 0.480$; $p = 0.044$), while website accessibility is positive but not significant ($\rho = 0.353$; $p = 0.151$).

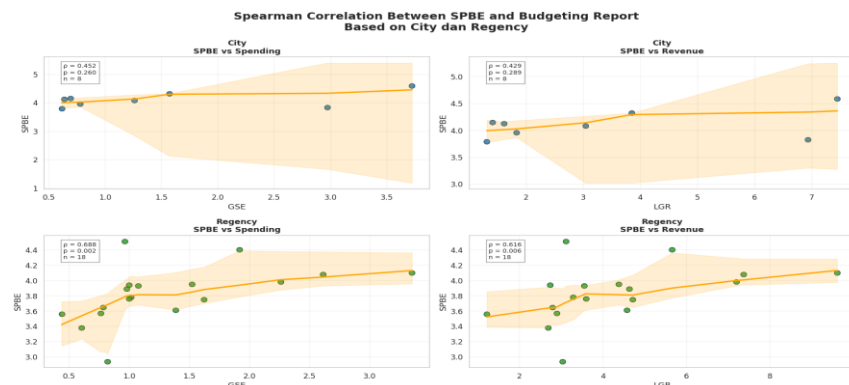


Figure 5. Spearman Correlation between SPBE and Budget Capacity (GSE and LGR) by Government Type

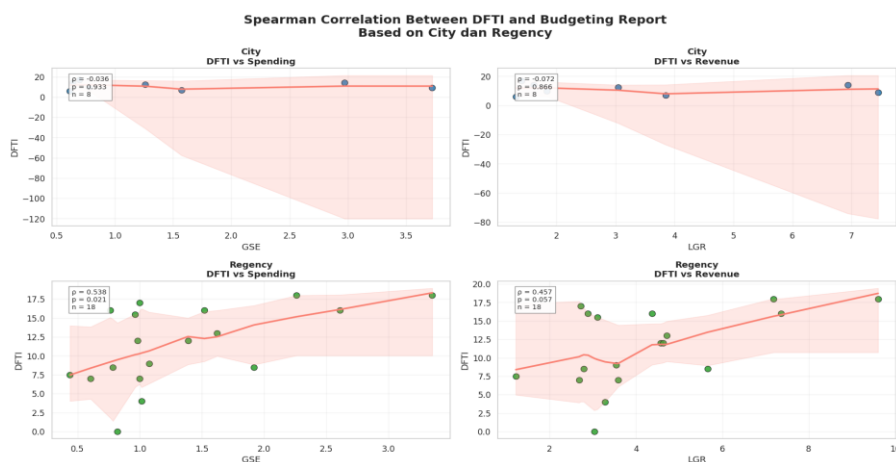


Figure 6. Spearman Correlation between DFTI and Budget Capacity (GSE and LGR) by Government Type

Figure 5 examines the relationship between SPBE and the two budget variables. For cities, the correlations are positive but not statistically significant (SPBE-GSE: $\rho = 0.452$, $p = 0.260$; SPBE-LGR: $\rho = 0.429$, $p = 0.289$). Among regencies, both budget variables are strongly and significantly correlated with SPBE (SPBE-GSE: $\rho = 0.688$, $p = 0.002$; SPBE-LGR: $\rho = 0.616$, $p = 0.006$).

Figure 6 completes the picture by relating DFTI itself to the budget variables. For cities, there is essentially no association (DFTI-GSE: $\rho = -0.036$, $p = 0.933$; DFTI-LGR: $\rho = -0.072$, $p = 0.866$). For regencies, goods and services expenditure is significantly correlated with DFTI ($\rho = 0.538$; $p = 0.021$), and local government revenue is marginally so ($\rho = 0.457$; $p = 0.057$). Taken together, digital government maturity is anchored in an interlocking set of conditions: substantive disclosure of organizational and financial information, an adequate human development base, and, particularly for regencies, sufficient budget capacity. Website accessibility alone, without meaningful content, contributes little to maturity.

3.5 Discussion

The first major finding of this study is the pronounced heterogeneity of digital financial transparency across West Java. With a mean DFTI of 11.33 out of a maximum of 21 (approximately 54%) and a standard deviation of 6.45, and with 9 of 52 observed portals inactive or inaccessible, the mapping reveals that compliance with Law No. 14 of 2008 on Public Information Disclosure remains uneven and, in several jurisdictions, largely symbolic. This is consistent with earlier Indonesian evidence that budget transparency indices vary persistently across local governments [14] and that digital transparency practices are shaped by e-government maturity, financial reporting quality, and accountability systems rather than by regulation alone [1]. From a legitimacy perspective, governments that maintain accessible portals but publish little substantive financial content may be pursuing legitimacy in form rather than in substance [12]; the weakness of exactly those indicators that matter most to citizens, such as raw data formats (FT5), public financial summaries (FT7), and personal data protection (OI6), supports this interpretation.

The second finding, the significant positive effect of DFTI on SPBE, contributes to a literature in which the relationship between e-government and accountability has long been contested. Reference [5] found that e-government in European local governments did not necessarily produce more accountable and transparent administration, and reference [6] concluded from 25 years of research that the effects of transparency are contingent on context and implementation. Against this mixed international backdrop, the present results suggest that in the Indonesian institutional setting, substantive disclosure and digital maturity are mutually reinforcing rather than decoupled. From an agency-theory standpoint, governments that voluntarily reduce information asymmetry through financial disclosure signal a monitoring-friendly orientation [4], [10] that is also rewarded in maturity evaluations. Importantly, the dimensional analysis shows that this link runs through content rather than through website accessibility, echoing the insight that what is disclosed matters more than how a website looks [13].

Third, the significant effect of human development on SPBE aligns closely with recent Indonesian evidence. Using the Technology-Organization-Environment (TOE) framework on 383 district and city governments, reference [15] demonstrated that environmental factors, including human capital and human development, significantly determine e-government maturity, and reference [16] reached a similar conclusion for e-government implementation and public accountability. Reference [17] likewise documented that e-government development in Indonesia has been uneven and concentrated in regions with stronger socioeconomic endowments. The present study extends this line of work by showing that, even within a single relatively developed province, differences in human development still translate into differences in digital governance maturity.

Fourth, the budget capacity results refine the resource-based explanation of digital governance. The strong regency-level correlations of SPBE with both LGR and GSE are

consistent with the organizational dimension of the TOE framework [15], [16] and with evidence that regional financial information systems enhance transparency when adequately resourced [2]. The absence of these correlations among cities, whose SPBE scores cluster near the top of the distribution, suggests a ceiling effect: once a threshold of maturity is reached, further progress depends less on money and more on institutional commitment, a pattern also implied by studies of e-government optimization in local services [8].

Finally, the findings carry direct implications for SDG 17. The evidence suggests a practical sequencing for West Java: first, reactivate dormant portals and standardize the minimum financial content of BPKAD and PPID websites; second, prioritize the currently weakest indicators, namely raw data, citizen-friendly budget summaries, and personal data protection; and third, improve budget capacity at low-DFTI regencies, where additional resources demonstrably move both transparency and maturity [13].

4. CONCLUSION

This study concludes that digital financial transparency among local governments in West Java Province remains moderate and uneven, indicating substantial differences in the availability, accessibility, and quality of financial information disclosed through government digital platforms. The findings demonstrate that digital financial transparency has a positive and significant influence on sustainable public governance, as reflected in the SPBE index, thereby supporting the research hypothesis and suggesting that greater transparency contributes to stronger digital governance maturity. This relationship is particularly associated with the quality of organizational information and financial disclosure, while human development and budgetary capacity also play important supporting roles in strengthening governance performance. These findings imply that digitalization can contribute effectively to accountable and sustainable public governance when it is accompanied by substantive financial disclosure, adequate institutional capacity, sufficient resources, and citizen-oriented access to information, in line with the objectives of SDG 17. Nevertheless, the study is limited by its focus on a single province, relatively small sample size, and cross-sectional design, which restrict the generalizability of the findings and prevents definitive causal inference. Therefore, local and central governments are encouraged to standardize minimum requirements for digital financial disclosure, improve the accessibility and continuity of government information portals, expand the provision of open and citizen-friendly financial data, and strengthen institutional capacity in local governments with relatively low transparency, while future research should employ broader geographical coverage, longitudinal designs, more comprehensive governance indicators, and mixed-method approaches to further examine the mechanisms through which digital financial transparency promotes sustainable public governance.

REFERENCES

- Amyulianthy, R., Muda, R., Said, J., & Setyaningrum, D. (2022). Measuring good public governance in the local governments of Indonesia: A multidimensional index. *Asia-Pacific Management Accounting Journal*, 17(2), 201–227.
- Anthropic. (2025). Claude (Sonnet 4.5 version) [Large language model]. <https://claude.ai>
- Badewin, Elizabeth, R., Rusmardiana, A., Rely, G., & Judijanto, L. (2025). Accountability and transparency in local government financial reporting: An empirical study in Indonesia. *Jurnal Ilmiah Akuntansi Kesatuan*, 13(4), 831–842.
- Cucciniello, M., Porumbescu, G. A., & Grimmeliikhuijsen, S. (2017). 25 years of transparency research: Evidence and future directions. *Public Administration Review*, 77, 32–44.
- Defitri, S. Y., Bahari, A., Handra, H., & Febrianto, R. (2020). Determinant factors of e-government implementation and public accountability: TOE framework approach. *Public Policy and Administration*, 19(4), 37–51.
- Del Sol, D. A. (2013). The institutional, economic and social determinants of local government transparency. *Journal of Economic Policy Reform*, 16(1), 90–107.
- Haustein, E., & Lorson, P. C. (2023). Transparency of local government financial statements: Analyzing citizens' perceptions. *Financial Accountability & Management*, 39, 375–393.
- Huda, M., & Yunas, N. S. (2016). The development of e-government system in Indonesia. *Jurnal Bina Praja*, 8(1), 97–108.
- Kang, A., & Yu, K. (2025). The impact of financial data visualization techniques on enhancing budget transparency in local government decision-making. *Spectrum of Research*, 5(2).
- Kannapadang, D., Munawaroh, S., & Purwanto, S. A. (2025). Optimizing e-government for enhanced transparency and accountability in local governance. *Jurnal Ilmiah Manajemen Kesatuan*, 13(5), 4203–4212.
- Laswad, F., Fisher, R., & Oyelere, P. (2005). Determinants of voluntary Internet financial reporting by local government authorities. *Journal of Accounting and Public Policy*, 24(2), 101–121.
- Maulidi, M. R., Safira, Z., Nabila, J., Mariana, M., & Rahmati, R. (2025). Digital transformation in local government: Enhancing financial transparency through the regional financial information system (SIKD). *HEI EMA: Jurnal Riset Hukum, Ekonomi Islam, Ekonomi, Manajemen dan Akuntansi*, 4(1), 54–66.

- Nulailah, N., & Syamsul, S. (2021). Indeks transparansi pengelolaan anggaran daerah: Bagaimana perkembangannya? *Jurnal Akuntansi dan Bisnis: Jurnal Program Studi Akuntansi*, 7(2), 180–195.
- Octavio, M. F. R., & Urumsah, D. (2024). Exploring factors influencing digital transparency in local governments: Practices in Indonesia. *Jurnal Dinamika Akuntansi dan Bisnis*, 11(2), 279–296.
- Pina, V., Torres, L., & Royo, S. (2010). Is e-government leading to more accountable and transparent local governments? An overall view. *Financial Accountability & Management*, 26(1), 3–20.
- Republik Indonesia. (2008). Undang-Undang Nomor 14 Tahun 2008 tentang Keterbukaan Informasi Publik.
- Salomo, R. V., & Rahmayanti, K. P. (2023). Progress and institutional challenges on local governments performance accountability system reform in Indonesia. *SAGE Open*, 13(4), 1–14.
- Sutopo, B., Wulandari, T. R., Adiati, A. K., & Saputra, D. A. (2017). E-government, audit opinion, and performance of local government administration in Indonesia. *Australasian Accounting, Business and Finance Journal*, 11(4), 6–22.
- United Nations Department of Economic and Social Affairs. (2024). United Nations e-government survey 2024: Accelerating digital transformation for sustainable development (with the addendum on artificial intelligence). United Nations.
- Yeremias, T. K., Cahyadi, D., & Djunaedi, A. (2024). Modelling e-government maturity determinants at the local level in Indonesia using Technology-Organization-Environment framework. *Jurnal Ilmu Sosial dan Ilmu Politik*, 28(1), 17–34.