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Does E-Government and Control of Corruption Affect Government Effectiveness and Economic Growth in Lower-Middle-Income Countries in Asia?

Apakah E-Government, dan Pengendalian Korupsi Mempengaruhi Keefektifan Pemerintah dan Pertumbuhan Ekonomi di Negara Berpenghasilan Menengah Bawah di Asia?

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ABSTRACT

This study examines the impact of e-government and corruption control on government effectiveness and economic growth in lower-middle-income countries in Asia. This study uses SMART PLS to test construct validity, reliability, and discriminant validity to assess data quality. Data is obtained from Worldbank and UN e-government surveys. The results of the study show that e-government has a positive and significant effect on government effectiveness, with a P-value of 0.000 and a T-statistic of 3,664. Control of corruption affects government effectiveness with a P-value of 0.001 and a T-statistic of 3.209; then, government effectiveness has a positive and significant effect on economic growth with a P-value of 0.000 and a T-statistic of 4.026. The findings highlight the importance of adopting efficient e-government practices and effective corruption control measures to improve government performance and promote sustainable economic growth in these countries.

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ABSTRAK

Studi ini mengkaji dampak e-government dan pengendalian korupsi terhadap efektifitas pemerintah dan pertumbuhan ekonomi di negara berpenghasilan menengah bawah di Asia. Penelitian ini menggunakan SMART PLS untuk menguji validitas konstruk, reliabilitas, dan validitas diskriminan untuk menilai kualitas data. Data diperoleh dari Worldbank dan UN e-government survei. Hasil penelitian menunjukkan e-Government berpengaruh positif dan signifikan terhadap keefektifan pemerintah dengan P-value 0,000 dan T-statistic 3,664. Pengendalian korupsi mempengaruhi keefektifan pemerintah dengan P-value 0,001 dan T-statistic 3,209 selanjutnya keefektifan pemerintah berpengaruh positif dan signifikan terhadap pertumbuhan ekonomi dengan P-value 0,000 dan T-statistic 4,026. Temuan menyoroti pentingnya mengadopsi praktik e-government yang efisien dan langkah-langkah pengendalian korupsi yang efektif untuk meningkatkan kinerja pemerintah dan mendorong pertumbuhan ekonomi yang berkelanjutan di negara-negara tersebut.

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Introduction

The advances of information and communication technology (ICT) influence governments around the world. Electronic governance, also known as "electronic governance," is one way that ICTs are used to regulate public services and governance (Abu-Faraj, 2023; Ameen, 2020). The goal of e-government is to increase government efficiency, transparency, public participation, and accountability. It is also hoped that the implementation of e-government will reduce unnecessary bureaucracy, accelerate access to public services, and increase interaction between citizens and government (Alhassan, 2021; Alshamsi, 2019). The existence of online platforms and electronic communication systems allows the public to carry out administrative transactions, provide input and feedback, access government information, and participate in public decision-making processes more easily and effectively (Stoica & Ghilic-Micu, 2021).

Countries implementing e-government have seen significant economic improvements. More effective public services, faster business processes, and better access to information can improve the investment climate and reduce administrative barriers (Kaya, 2020). In recent decades, Asia has experienced significant economic progress. This rapid economic growth has attracted the world's attention, making Asia the main engine of world economic growth. East Asian countries such as Japan, South Korea, and China have experienced tremendous economic growth in recent decades (Wu et al., 2020).

To achieve inclusive and sustainable economic growth throughout the Asian continent, it is not sufficient to rely solely on economic growth factors. Many additional factors influence the desired outcome of economic development. One of the factors that can affect economic growth is government effectiveness (Marselina & Enzovani, 2020). Effective governance refers to the level of service and bureaucracy provided by the government in carrying out its functions so that the government can provide public services (Hartati, 2020; Sobandi, 2019). If the bureaucracy is ineffective, it can prevent the government from achieving the best level of effectiveness. Signs of an ineffective bureaucracy include complicated and slow procedures, corruption, a lack of transparency, a lack of accountability, and weakness in decision-making. (Pratama, 2019; Sasso & Morelli, 2021). One of the important issues faced by countries in the Asian region with low middle incomes is high levels of corruption and low government effectiveness. High levels of corruption can lead to the diversion of public funds into the private pockets of officials (Barik & Lenka, 2023).

In addition to the problem of policy inefficiency, there is a risk that decision-makers may change economic policies to suit their self-interest, which could undermine the quality of good governance. When self-interest takes over, economic policies can be changed or manipulated to favor private interests, causing corruption (Alhassan & Adam, 2021). Corruption, which means abusing public power for personal gain, interferes with government performance. Public resources that should be used for development and community services are drained and allocated unfairly when corruption increases (Wijayanti & Sasongko, 2017). This hinders the government from providing good public services and creating a good business environment. As a result, investment decreases, economic growth is hampered, and inequality increases. Conversely, an effective and non-corrupt government can create conditions that support sustainable economic growth (Sharma, 2018). Improving government effectiveness and fighting corruption are important steps to promote sustainable and inclusive economic growth. This is because when public resources are used properly, public services are improved, and policies that support economic growth are implemented effectively (Asbarini, 2021).

The relationship between economic growth and e-government, the prevention of corruption, and the efficiency of the government are the subjects of several empirical studies. These studies find that good e-governance, low levels of corruption, and high government effectiveness are positively correlated with greater and sustainable economic growth (Adam, 2020b; Gründler & Potrafke, 2019; Awan, 2018). Even though e-government, fighting corruption, and effective administration are crucial for economic growth, there hasn't been much in-depth study or in-depth analysis of how these three aspects interact,

particularly in Asia's low- and middle-income countries. This study seeks to close this information gap by examining whether there is a link between e-government, anti-corruption efforts, good governance, and economic growth in low- and middle-income Asian nations.

E-Government Development

The objective behind the E-Government Development Index (E-Government Development Index) is to measure how far various governments have gone in embracing and implementing information and communication technology to digitize and automate their procedures and services. This index measures the progress and maturity level of the government in utilizing this technology to provide more efficient, transparent, and constructive public services. In this situation, the government provides services such as resident registration, tax payment, document submission, and online interaction between the government and citizens using technologies such as the Internet, mobile applications, integrated databases, and information systems (Meyerhoff & Millard, 2020; Zioło et al., 2022).

Three indicators within the human capital index measure the ability of the community to utilize the e-government services provided. This index includes factors such as digital literacy level, education level, and level of community participation and awareness of information technology. A higher index shows how well society understands and uses information technology (Osman & Zablith, 2021). The Online Service Index rates the accessibility and effectiveness of publicly funded online services. Online tax payments, submitting permit applications, resident registration, and other forms of public services are all included in this index. The higher this index, the more public services are available online, which makes it easier for people to access and utilize them (Nguyen, 2020). The Telecommunication Infrastructure Index measures the level of availability and reliability of telecommunications infrastructure that supports Internet access. This index considers factors like the internet speed and network coverage for telecommunications services, as well as the accessibility of physical infrastructure like cable networks and data centers. The higher this index, the better the existing telecommunications infrastructure, which in turn will facilitate internet access (Adam, 2020a; Kabbar, 2021).

Government Effectiveness

Give an overview of the credibility of the government's commitment to policy, the caliber of policy formation and implementation, the quality of public and civil services, human resources, and freedom from political pressure. Community perceptions of the quality of public services such as health, education, and security are important indicators for measuring government effectiveness. If people are satisfied with this service, the quality is good. In addition, the civil service mustn't be influenced by politics. This is because when the civil service has independence and is not affected by political interference, they can carry out their duties more professionally and honestly (Alam, 2017; Asbarini, 2021).

Good policy formulation and execution is a sign of effective governance. Policies must be made taking into account the interests of society as a whole through thorough analysis and the active participation of various stakeholders to achieve the desired results (Laureti, 2023). In addition, policies must be implemented properly and on time. Finally, a critical component of the evaluation is the government's commitment to the policy's credibility. Governments must make people believe that they will fulfill their promises and carry out their policies properly. Because of this belief, companies and people will be more interested in investing in and participating in the country's development. Overall, these depiction help in assessing the quality of government and how effective policies are implemented. For good governance to be realized, governments must consistently raise the standard of public services, ensure the independence of the civil service, create successful policies, and uphold the legitimacy of their commitment to those policies (Dahan & Strawczynski, 2020; Herbowo, 2020).

Control of Corruption

Corruption control is an effort to prevent, detect, and acts of corruption in a government system (Awan, 2018). It aims to ensure that public power is exercised for the common good rather than for private gain. Establishing and implementing effective legal systems, organizations, and procedures to prevent and punish corruption offenses is part of corruption control. Building public support, transparency, accountability, and governance integrity is another part of efforts to fight corruption. By improving corruption control, it is hoped that a clean, efficient, and reliable government will be formed, which will encourage a stable economic growth and a just society (Rahman, 2020).

Economic growth

Economic growth is a crucial metric for assessing an economy's development. When more goods and services are produced than the previous year, economic growth results. This demonstrates the extent to which economic activity can increase income over time and boost human welfare. Utilizing factors of production to produce output results in economic activity, which in turn generates money for the owners of the factors of production. Due to their ownership of the production components, it is anticipated that as the economy grows, so will people's income. Gross domestic product (GDP) data from products and services produced in the economy over a specific time period, often one year, is typically used to measure economic growth (Utami, 2020; Widjanarko, 2021).

Method

This study uses several secondary data sources that have proven reliable in previous studies (Alhassan & Adam, 2021; Bashar & Tsokos, 2019; Hussain, 2020). There are three main data sources used in this research, namely the UN E-Government Survey 2020 and the Worldbank (world governance indicator and world development indicator) 2020, taken from 15 countries in Asia that are included in the lower-middle income category, namely Cambodia, Mongolia, Pakistan, Bhutan, the Philippines, Uzbekistan, Myanmar, the Kyrgyz Republic, Bangladesh, Sri Lanka, Vietnam, Timor-Leste, Indonesia, Lao PDR, and India. This research can gain a significant understanding of the relationship between the variables studied and their indicators by using this data source. Table I describes variables, indicators, and data sources.

Table I Variables, Indicators, and Data Sources

Variable	Indicator	Data source
Control of Corruption	Control of Corruption	World Bank (2020)
Government Effectiveness	Government effectiveness	
E-Government Development	Human Capital Index	UN E-Government Survey (2020)
	Online Service Index	
	Telecommunication Infrastructure Index	
Economic Growth	Per Capita GDP	World Development Indicators - World Bank (2020)

Sources: Processed by researchers

Data Analysis

SmartPLS 3 software is used in this study to analyze the data. Because PLS-SEM provides the necessary flexibility for theory-data interactions, it is perfect for exploratory research using secondary data (Hair, 2019). PLS-SEM focuses on the analysis of explained (explained) variance rather than covariance, thereby enabling reliable analyses even with smaller samples. Consequently, PLS-SEM is more tolerant of relatively small samples. Although PLS-SEM is successful in smaller samples, it still has limitations

(Hasni & Sarlan, 2021). With SmartPLS, data analysis requires several stages. In the first stage, the validity and reliability of the indicators are tested. This is done to ensure that the indicators used have sufficient validity. Convergent and discriminant validity are two methods to test validity. In the final step, hypothesis testing, the research hypothesis is tested with statistics. To get the sampling distribution of the tested coefficients, thousands of iterations were carried out using the bootstrapping technique. The bootstrapping results are examined by looking at the T-Statistics and P-Value values. The hypothesis can be accepted if the P-value is less than 0.05 and the T-statistics value is greater than 1.96 (at a significance level of 0.05) (Hair, 2019). This research was able to test the validity, reliability, and relationship between the variables studied through a thorough analysis conducted with SmartPLS.

Hypothesis:

H1: E-government development influences governance effectiveness positively and significantly.
H2: Control of corruption influences governance effectiveness positively and significantly.
H3: Government effectiveness affects economic growth positively and significantly.
H4: E-government influences economic growth positively and significantly through government effectiveness.
H5: Control of corruption influences economic growth positively and significantly through government effectiveness.

Results and Discussion

Cronbach's alpha value must be above 0.7 to be considered reliable; composite reliability must be above 0.7; and AVE must be above 0.5 (Hair, 2019; Sarstedt et al., 2022). All constructs studied have a high level of validity and reliability, as shown by the data in Table II. The control of corruption measurement has a maximum value of 1,000 for construct validity and reliability. E-government has a Cronbach alpha construct validity value of 0.718, rho-A of 0.773, and composite reliability of 0.831, which is above the minimum threshold, which is considered good. The average value of the difference in extraction is 0.622. However, measures of economic growth and government effectiveness show a maximum value of 1,000 for construction validity and reliability. These results show that the indicators used to evaluate these structures are consistent and reliable. As a result, the data provided supports the quality and suitability of the models used in this study.

Table II Construct Validity and Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Control of corruption	1,000	1,000	1,000	1,000
E-government	0.718	0.773	0.831	0.622
Economic growth	1,000	1,000	1,000	1,000
Government effectiveness	1,000	1,000	1,000	1,000

Sources: Processed by researchers

Table III Discriminant Validity; Fornel-Larcker Criterion

	Control of Corruption	E-Government	Economic Growth	Government effectiveness
Control of corruption	1,000			
E-government	0.196	0.789		
Economic growth	0.515	0.444	1,000	
Government effectiveness	0.654	0.677	0.592	1,000

Sources: Processed by researchers

Table IV Cross Loadings

	Control of Corruption	E-Government	Economic Growth	Government effectiveness
Control of Corruption	1,000	0.196	0.515	0.654
Economic Growth	0.515	0.444	1,000	0.592
Government effectiveness	0.654	0.677	0.592	1,000
Online Service Index	0.081	0.733	0.543	0.309
Human Capital Index	0.328	0.840	0.308	0.684
Telecommunication Infrastructure Index	0.069	0.790	0.305	0.491

Sources: Processed by researchers

Utilizing cross-loading criteria, Fornell and Larcker discriminant validity, was examined. Fornell and Larcker recommend a conventional metric and advise comparing the AVE of a construct with the square of the correlation between constructs, which is a measure of shared variance, of the same construct and all other constructs that are measured reflectively in the structural model. All model constructs' shared variance cannot be higher than their AVE (Hair, 2019). Table III shows that the Fornell-Larcker discriminant validity criteria are met because all AVE values are greater than the squared correlation between related constructs. According to Chin in Henseler (2015), if the capacity of each indication is greater than the overall cross-load capacity, the cross-loading validity condition is satisfied. It is because no indicator has a higher cross-loading with the construct that should be connected, Table 4 also demonstrates discriminant validity with cross-loading. Tables III and IV collectively demonstrate that the investigated structures satisfied the criteria for discriminant validity based on Fornell-Larcker and cross-loading, demonstrating that the structures are distinct from one another and have enough discriminant validity.

Hypothesis Test

The bootstrap resampling technique was used to assess both endogenous and exogenous factors. If the T statistic is greater than 1.96 and the P value is lower than 0.05, the test findings are deemed significant. Table V displays the findings of the direct interaction between the factors examined. The effectiveness of electronic government and government effectiveness are significantly correlated, as it is shown by the table, which has a t-statistic of 3,664 and a p-value of 0.001. With a t-statistic of 3.209 and a p-value of 0.001, there is also a strong correlation between the prevention of corruption and the effectiveness of the administration. A correlation coefficient of 0.592 shows a connection between economic growth and government efficiency. With a high statistical T value of 4.026 and a P value of 0.000, this link is highly statistically significant. "Government effectiveness has a positive and significant impact on economic growth," the findings reveal.

Table V Direct Effects

	Original Sample	Means	Standard Deviation	T Statistics	P Value	
E-Government -> Government Effectiveness	0.570	0.573	0.156	3,664	0.000	accepted
Control of corruption -> Government Effectiveness	0.542	0.509	0.169	3,209	0.001	accepted
Government Effectiveness -> Economic Growth	0.592	0.589	0.147	4,026	0.000	accepted

Sources: Processed by researchers

Table VI Indirect Effects

	original sample	Means	Standard Deviation	T Statistics	P Value	
E-Government-> Government Effectiveness-> Economic Growth	0.337	0.341	0.131	2,580	0.010	accepted
Control of corruption -> Government Effectiveness -> Economic Growth	0.321	0.304	0.134	2,400	0.017	accepted

Sources: Researchers

Table VI displays the indirect impact. With a t-statistic of 2,580 and a p-value of 0,010, the table shows a relationship between e-government, government effectiveness, and economic growth. This demonstrates that there is a strong correlation between government efficiency, economic growth, and e-government. Additionally, there is a direct correlation between the suppression of corruption, effective governance, and economic expansion. This demonstrates how crucial these sequential elements are for influencing both economic growth and the efficiency of government.

Table VII R Square

	R Square	R Square Adjust
Economic Growth	0.350	0.300
Government Effectiveness	0.741	0697

Sources: Processed by researchers

The adjusted R square and R square values give an idea of how well the regression model can explain the variation in the data for each variable. A higher R square value indicates that the model can provide a better explanation of the variation in the data. An R square value of 0.75 is a strong degree of explanation for the data variation. The R square score of 0.50, on the other hand, falls into the moderate category and denotes a considerable amount of explanation. As for the 0.25 R square value, it is considered to be at a weak level, which suggests that the model can only fully explain a tiny portion of the data's volatility (Edeh, 2023; Sarstedt et al., 2022; Veeramootoo, 2018).

Table VII shows that for the economic growth variable, the R square value of 0.350 indicates that the regression model can only explain about 35% of the variation in the data, which is classified as a low level of explanation. After adjusting for the number of predictors, the adjusted R square value remained at a weak level, which was 0.300. Meanwhile, for the government effectiveness variable, the R square value of 0.741 indicates that the regression model can explain around 74.1% of the variation in the data, which is a strong explanatory level. After adjustment, the adjusted R square value remains in the strong category, which is equal to 0.697.

Discussion

E-government affects government effectiveness. Government effectiveness can be influenced in several ways. These results are in line with the research of Alhassan and Adam (2021). First, e-government can speed up administrative processes, reduce bureaucracy, and speed up decision-making. Second, e-government allows the government to be more open and transparent in managing public data and provides easier access for the public to obtain information. Third, by implementing digital public services such as e-government and e-licensing, the government can improve the efficiency and quality of services provided to its citizens (Cordella & Paletti, 2019; Santa, 2019). Overall, e-government adoption helps governments optimize resources, increase transparency, and provide better public services to citizens.

E-government does not always require sophisticated infrastructure. In low-income countries, small steps can be taken to implement e-government and focus on the most important tasks of government (Pangaribuan, 2019). For example, the government can provide public services and interact with citizens through social media applications and instant messaging or utilize simple communication platforms via mobile phones, which are very popular among citizens. The government can increase the accessibility of public services for its citizens, including in remote areas with limited infrastructure (Jiang, 2021; Joshi & Islam, 2018).

Control of corruption affects government effectiveness; these results indicate that corruption control can affect government effectiveness. When the level of corruption control is high, the government can prevent, detect, and act on violations that harm the public interest. By reducing corrupt practices in government institutions, public resources can be used more effectively and on target. Corruption control can also increase public trust in government, increase transparency and accountability in decision-making processes, and increase government legitimacy (Mahmood, 2021).

The reduction of corruption has a significant impact on the efficiency of governments in low- and middle-income nations. The results of the hypothesis test reveal that, even if corruption is still a serious problem, reducing it has a positive and significant impact on how successful governments are in lower-middle-income nations. In this context, the findings highlight the importance of efforts and policies to improve control of corruption as one of the crucial factors in increasing government effectiveness in lower-middle-income countries. Although corruption can be a real challenge in countries with limited resources, efforts to reduce corrupt practices can make a significant contribution to improving the quality and efficiency of government (de Oliveira, 2019).

Government effectiveness affects economic growth. To encourage a country's economic growth, an effective government is needed. When the government functions properly and efficiently, public policies can be implemented more precisely on target, bureaucracy is reduced, and decision-making is faster (Alam, 2017). Effective governance also reduces levels of corruption and increases transparency, which increases investor confidence. Public resources can be better allocated, infrastructure projects can be better completed, and economic regulations can be managed better with effective governance (Herbowo, 2020). The significance of government efficacy in fostering economic growth also applies to low- and middle-income countries. The success rate of a government in providing public services, managing resources, and implementing policies can have a direct impact on economic prospects. Good governance can improve the business climate, reduce bureaucracy, and provide the legal certainty needed to encourage private sector investment and development (Nangpiire, 2018).

E-government, and the control of corruption through government effectiveness affect economic growth positively and significantly. Economic growth is positively and significantly impacted by the implementation of e-government and the reduction of corruption through government effectiveness. Using information technology, e-government makes public services more open and efficient, encourages investment, and quickens commercial operations. Meanwhile, reducing corruption through improved government effectiveness boosts the effectiveness and management of public resources, inspires confidence in the public, and attracts investors. Even in low- and middle-income nations with issues with corruption and inadequate infrastructure, the combination of these two elements offers a strong basis for equitable and sustained economic growth.

Conclusion

The findings demonstrate that e-government and the fight against corruption have a favorable and considerable impact on economic growth in lower-middle-income nations. In this context, it has been discovered that efficient e-government implementation and corruption prevention boost government effectiveness, which in turn leads to stronger and more enduring economic growth. The findings demonstrate how electronic government (e-government) can improve the effectiveness of public services

and governance. Implementing e-government facilitates more efficient administrative procedures, increased levels of transparency, and improved public services, which improves the investment climate for the expansion of the private sector.

In addition, government effectiveness increases the efficiency and management of public resources by reducing corruption. This improves public and investor confidence, government transparency, and accountability while enabling the government to allocate funds in a more focused manner. The outcomes of hypothesis testing also demonstrate that the efficiency of the federal government has a favorable and considerable impact on economic expansion. This demonstrates how crucial effective governance is in creating the conditions for long-term economic success. The deployment of e-administration and the management of corruption through effective administration continue to have a good and significant impact on economic growth despite the inadequate infrastructure and corruption issues encountered by middle-income countries. This demonstrates how crucial it is to implement the proper policies, use innovation to get over infrastructure constraints, and be dedicated to fighting corruption if you want an economy to prosper.

Therefore, the findings of this study indicate that improving the quality of governance and promoting inclusive and sustainable economic growth in lower-middle-income countries is an important step in implementing e-government and controlling corruption through government effectiveness. Countries must continue to strive to improve the quality of governance, optimize the implementation of e-government, and control corruption.

References

Abu-Faraj, M., Masa'deh, R., & Alshurideh, M.T. (2023). E-Government Implementation: A Case Study of Jordanian e-Government Program. (April):1355–68. doi: 10.1007/978-3-031-12382-5_74.

Adam, I.O. (2020a). Examining E-Government Development Effects on Corruption in Africa: The Mediating Effects of ICT Development and Institutional Quality. *Technology in Society* 61(February):101245. doi: 10.1016/j.techsoc.2020.101245.

Adam, I.O. (2020b). ICT Development, e-Government Development, and Economic Development: Does Institutional Quality Matter? *Information Technologies and International Development* 16(16):1–19.

Alam, M.R., Kitenge, E., & Bedane, B. (2017). Government Effectiveness and Economic Growth. *Economics Bulletin* 37(1):222–27.

Alhassan, M.D., & Adam, I.O. (2021). The Linkages between ICT Access, e-Government and Government Effectiveness and Its Effect on Corruption. *International Journal of Technology, Policy and Management* 21(4):344. doi: 10.1504/ijtpm.2021.10043458.

Alhassan, M. D., Adam, I.O., & Musah, A. (2021). E-Government Development at the Global Level. *International Journal of Technology Diffusion* 12(2):17–31. doi: 10.4018/ijtd.2021040102.

Alshamsi, O. A. A., Isaac,O., Khalifa., G.S.A., & Bhumic, A. (2019). Examining the Impact of Dubai Smart Government Characteristics on User Satisfaction. *International Journal of Recent Technology and Engineering* 8(2 Special Issue 10):319–27. doi: 10.35940/ijrte.B1053.0982S1019.

Ameen, A., Al-Ali, D., Isaac, O., & Mohammed, F. (2020). Examining Relationship between Service Quality, User Satisfaction and Performance Impact in the Context of Smart Government in UAE. *International Journal of Electrical and Computer Engineering* 10(6):6026–33. doi: 10.11591/ijece.v10i6.pp6026-6033.

Asbarini, E., Fitri, N., Isnaini, L., & Wibowo, M.G. (2021). Pengaruh Tata Kelola Pemerintah Terhadap Pertumbuhan Ekonomi di Asean. *Jurnal Ekonomi Dan Pembangunan* 12(1):82–93. doi: 10.22373/jep.v12i1.606.

Awan, R. U., Akhtar, T., Rahim, S., And, S., & Cheema, A.R. (2018). Governance, Corruption and Economic Growth: A Panel Data Analysis of Selected Saarc Countries. *Pakistan Economic and Social Review* 56(1):1–20.

Barik, R., & Lenka, S.K. (2023). Does Financial Inclusion Control Corruption in Upper-Middle and Lower-Middle Income Countries? *Asia-Pacific Journal of Regional Science* 7(1):69–92. doi: 10.1007/s41685-022-00269-0.

Bashar, A. K. M., Raquibul., & Tsokos, C.P. (2019). Statistical Parametric Analysis on Democracy Data. *OALib* 06(10):1–18. doi: 10.4236/oalib.1105828.

Cordella, A., & A. Paletti. 2019. Government as a Platform, Orchestration, and Public Value Creation: The Italian Case. *Government Information Quarterly* 36(4). doi: 10.1016/j.giq.2019.101409.

Dahan, M, & Strawczynski, M. (2020). Budget Institutions and Government Effectiveness. *Journal of Public Budgeting, Accounting and Financial Management* 32(2):217–46. doi: 10.1108/JPBAFM-03-2019-0055.

Edeh, E., Lo, W.J., & Khojasteh, J. (2023). *Review of Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Vol. 30.

Gründler, K., & Potrafke, N. (2019). Corruption and Economic Growth: New Empirical Evidence. *European Journal of Political Economy* 60. doi: 10.1016/j.ejpoleco.2019.08.001.

Hasni, M.D.I., & Sarlan, A. (2021). Collaborative Visualization Framework for Cross-Field Working Group. *Proceedings - International Conference on Computer and Information Sciences: Sustaining Tomorrow with Digital Innovation, ICCOINS 2021* 101(11):270–75. doi: 10.1109/ICCOINS49721.2021.9497144.

Hair, J. F., Risher, J.J., Sarstedt, M., & Ringle, C.M. (2019). When to Use and How to Report the Results of PLS-SEM. *European Business Review* 31(1):2–24. doi: 10.1108/EBR-11-2018-0203.

Hartati, S. (2020). Penerapan Model New Public Management (Npm) dalam Reformasi Birokrasi di Indonesia. *Jurnal MSDA (Manajemen Sumber Daya Aparatur)* 8(2):65–84. doi: 10.33701/jmsda.v8i2.1293.

Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science* 43(1):115–35. doi: 10.1007/s11747-014-0403-8.

Herbowo, I. B. (2020). Analisis Government Efectiveness, Penerimaan Pajak, Dan Kemudahan Berbisnis Terhadap Korupsi Di Asia Tenggara. 1–92.

Hussain, S., Nasiri, A., Akram, M.S., & Zahra, F. (2020). The Relationship between Gross Domestic Product and Human Development Index: Evidence from 11 Middle East Countries. *RMC Journal of Social Sciences and Humanities* 1(2):41–48. doi: 10.46256/rmcjsochum.v1i2.78.

Jiang, T. Y., T. Lin,W., Shangguan, L. (2021). Evaluating Chinese Government WeChat Official Accounts in Public Service Delivery: A User-Centered Approach. *Government Information Quarterly* 38(1). doi: 10.1016/j.giq.2020.101548.

Joshi, P. R., & Islam, S. (2018). E-Government Maturity Model for Sustainable E-Government Services from the Perspective of Developing Countries. *Sustainability (Switzerland)* 10(6). doi: 10.3390/su10061882.

Kabbar, E.F. (2021). A Comparative Analysis of the E-Government Development Index (EGDI). *14th International Conference on ICT, Society, and Human Beings, ICT 2021, 18th International Conference on Web Based Communities and Social Media, WBC 2021 and 13th International Conference on e-Health, EH 2021 - Held at the 15th Multi-Conference on Comp* 23–29. doi: 10.33965/ict2021_202106l003.

Kaya, T. (2020). *E-Government Services in South Asia: Challenges and Opportunities*. Nova Science Publishers.

Laureti, L., Costantiello, A., & Leogrande, A. (2023). The Role of Government Effectiveness in the Light of ESG Data at Global Level. *SSRN Electronic Journal* 1–36. doi: 10.2139/ssrn.4324938.

Mahmood, H., Tanveer, M., Omerović, E., & Furqan, M. (2021). Rule of Law, Corruption Control, Governance, and Economic Growth in Managing Renewable and Nonrenewable Energy Consumption in South Asia. *International Journal of Environmental Research and Public Health* 18(20). doi: 10.3390/ijerph182010637.

Marselina, M., & Enzovani, S. (2020). The Effect of Democracy on GDP in OECD Countries. *Munich Personal RePEc Archive* 82(8):5082–86.

Meyerhoff, N. M., & Millard, J. (2020). Recommendations for an adapted approach using the UN E-Government Development Index as an example: 253–60. doi: 10.1145/3396956.3396969.

Nangpiire, C., Rodrigues, R.G., & Adam, I.O. (2018). Ease of Doing Business and Foreign Direct Investment Inflow among Sub-Sahara African Countries. *International Journal of Business and Emerging Markets* 10(3):289. doi: 10.1504/ijbem.2018.093006.

Nguyen, T.T., Phan, D.M., Le, A.H., & Nguyen, L.T.N. (2020). The Determinants of Citizens' Satisfaction of E-Government: An Empirical Study in Vietnam. *Journal of Asian Finance, Economics and Business* 7(8):519–31. doi: 10.13106/JAFEB.2020.VOL7.NO8.519.

de Oliveira, A. J., Montes, G.C., & Bastos, J.C.A. (2019). Fiscal Transparency, Government Effectiveness and Government Spending Efficiency: A Panel Data Approach for Developed and Developing Countries. *Economic Modelling* 79(C):221–25.

Osman, I. H., & Zablith, F. (2021). Re-Evaluating Electronic Government Development Index to Monitor the Transformation toward Achieving Sustainable Development Goals. *Journal of Business Research* 131(October):426–40. doi: 10.1016/j.jbusres.2020.10.027.

Pangaribuan, A. A. (2019). The Challenges of E-Government Implementation in Developing Countries. *Journal of Public Administration Studies* 4(1):26.

Pratama, P. E., Kamil, M., & Salahudin,S. (2019). Implementation of the Integrity Zone Development Program towards a Corruption-Free Area and a Serving Clean Bureaucracy Region. *Journal of Local Government Issues* 2(2):134. doi: 10.22219/logos.vol2.no2.134-148.

Rahman, A,, Satispi, E., & Adiyasha, D.L. (2020). Perbandingan E-Government Antara Singapura Dan Jepang : Perspektif Determinan Dan Perannya Dalam Mengefektifkan Pemerintahan Dan Mengendalikan Korupsi. *Jurnal Administrasi Publik* 6(2):177–99.

Santa, R., MacDonald, J.B., & Ferrer, M. (2019). The Role of Trust in E-Government Effectiveness, Operational Effectiveness and User Satisfaction: Lessons from Saudi Arabia in e-G2B. *Government Information Quarterly* 36(1):39–50. doi: 10.1016/j.giq.2018.10.007.

Sarstedt, M., Hair, J.F., Pick, M., Liengaard, B.D., Radomir,L., & Ringle, C.M (2022). Progress in Partial Least Squares Structural Equation Modeling Use in Marketing Research in the Last Decade. *Psychology and Marketing* 39(5):1035–64. doi: 10.1002/mar.21640.

Sasso, G., & Morelli, M. (2021). Bureaucrats under Populism. *Journal of Public Economics* 202:104497. doi: 10.1016/j.jpubeco.2021.104497.

Sharma, P. N. F. V., Morgeson III., S. Mithas, A., & S. Aljazzaf. (2018). An Empirical and Comparative Analysis of E-Government Performance Measurement Models: Model Selection via Explanation, Prediction, and Parsimony. *Government Information Quarterly* 35(4):515–35. doi: 10.1016/j.giq.2018.07.003.

Sobandi, B. (2019). Strategi Implementasi Manajemen Talenta Pada Birokrasi Di Indonesia. *Civil Service Journal* 13(2):15–25.

Stoica, M., & Ghilic-Micu, B. (2021). E-Government in Romania – A Case Study. *IBIMA Business Review* 2020. doi: 10.5171/2020.608643.

Utami, F.P. (2020). Pengaruh Indeks Pembangunan Manusia (IPM), Kemiskinan dan Pengangguran terhadap Pertumbuhan Ekonomi di Provinsi Aceh. *Jurnal Samudra Ekonomika* 4(2):101–13.

Veeramootoo, N., R. Nunkoo, & Y. K. Dwivedi. (2018). What Determines Success of an E-Government Service? Validation of an Integrative Model of e-Filing Continuance Usage. *Government Information Quarterly* 35(2):161–74. doi: 10.1016/j.giq.2018.03.004.

Widjanarko, W. (2021). Analisis Hubungan Good Governance dan Pertumbuhan Ekonomi Indonesia 2013-2019. *Jurnal Good Governance* 17(2):155–68. doi: 10.32834/gg.v17i2.340.

Wijayanti, D. W., & Sasongko, N. (2017). Pengaruh Pemahaman, Sanksi Perpajakan, Tingkat Kepercayaan pada Pemerintah dan Hukum Terhadap Kepatuhan dalam Membayar Wajib Pajak (Studi Wajib Pajak pada Masyarakat di Kelurahan Pajang Kecamatan Laweyan Surakarta). *Peran Profesi Akuntansi dalam Penanggulangan Korupsi* (4):308–26.

Wu, C. F., Huang, S.C., Chang, T., Chiou, C.C., & Hsueh, H.P. (2020). The Nexus of Financial Development and Economic Growth across Major Asian Economies: Evidence from Bootstrap ARDL Testing and Machine Learning Approach. *Journal of Computational and Applied Mathematics* 372:112660. doi: 10.1016/j.cam.2019.112660.

Zioło, M., Niedzielski, P., Kuzionko-Ochrymiuk, E., Marcinkiewicz, J., Łobacz, K., Dyl, K., & Szanter, R. (2022). E-Government Development in European Countries: Socio-Economic and Environmental Aspects. *Energies* 15(23):1–17. doi: 10.3390/en15238870.