SCIENTIFIC CULTURE, Vol. 12, No.5, (2026), pp. 914-922
Open Access. Online & Print

www.sci-cult.com
DOI: 10.5281/zenodo.20703101

DIGITAL GOVERNANCE AND ADMINISTRATIVE EFFICIENCY: A COMPARATIVE STUDY OF E-GOVERNMENT SYSTEMS IN EMERGING ECONOMIES

Akshaya Kishor[1*], Dr. Tasneem Sultana[2], Dr. Aliya Sultana[3], Dr. Manchala Veera Krishna[4], Dr. Surabhi Shanker[5] Dr. Urvashi Sharma[6]

[1*]*Assistant Professor, Department of Law, Manipal University Jaipur, Dehmi Kalan, Jaipur, Rajasthan, India, 303007, Email Id : akshaya.kishor@jaipur.manipal.edu, Orcid Id : https://orcid.org/0009-0002-8727-8998*
[2]*Assistant Professor, Department of Law, ICFAI Law School, Hyderabad ,Email Id : tasneemsultana@ifheindia.org, Orcid Id : 0000 0003 4957 9036*
[3]*Associate Professor, Department of Management Studies, RGM College of Engineering and Technology (Autonomous) Affiliated to JNTU, Ananthapuramu, Nandyal, Andhra Pradesh, Email Id : aliya.sultana74@rgmcet.edu.in, Orcid Id : https://orcid.org/0000-0003-1701-7899*
[4]*Assistant Professor, School of Business, Aditya University, Surampalem, Andhra Pradesh, India, Email Id : veerakrishnam@adityauniversity.in, Orcid: 0009-0009-2355-7761*
[5]*Centre of Excellence-Cyber Security, School of Engineering and Technology, K R Mangalam University, Gurugram, Email Id : dr.surabhishanker@gmail.com , Orcid Id : 0000-0001-7160-9049*
[6]*Assistant Professor, SLS Noida, Symbiosis International (Deemed University), Specialization in IPR and Constitution, Email Id : urvashi.sharma@symlaw.edu.in, Orcid Id : 0000-0003-2240-9555*

Abstract
The association between digital governance and administrative efficiency in emerging economies through a comparative empirical design. Based on the World Bank GovTech dataset (20202025), the study examines the impact of the GovTech Maturity Index and its major constituents on the administrative performance of different countries. The operationalization of administrative efficiency is based on the indicators associated with financial management systems, integration of financial treasuries, and e-taxation. The results show that digital governance and efficiency have a strong and positive correlation, meaning that the higher the country is digitally mature the more the country is likely to deliver positive administrative performance. The discussion also reveals that the core state systems are more influential in efficiency than service delivery platforms, which explains the significance of backend institutional infrastructure. The comparisons among the regions show that there are significant differences, indicating that not all emerging economies benefit equally by the digital transformation. The research add to the existing literature by offering a cross-country and data-driven evaluation of digital governance and its contribution to the performance of the public sector. It also provides insights on policies as it promotes the necessity of integrated policies on digital strategies that integrate technology development with building capacity in institutions.

Keywords: *Digital Governance, E-Government, Administrative Efficiency, Govtech, Emerging Economies, Public Administration, Digital Transformation, Government Effectiveness*

1. Introduction

Digital governance has become an important aspect of contemporary government, especially due to the accelerating technology and growing demands in the direct manner of effective service provision. World governments are also embracing the use of digital tools to increase transparency, accountability, and responsiveness in their administrative activities. The open government data ecosystems have also enhanced the capacity to share information and involve stakeholders in a better manner (Dawes et al., 2016). The digital governance in this context is not just a technological change but a change of the way the governments design, deliver, and manage their public services. Meanwhile, the incorporation of new technologies including big data analytics has created new opportunities and challenges in governance. Although these technologies provide the opportunity to make decisions based on the data, they also introduce the issue of limitations with algorithms and complications in the sphere of governance (Janssen and Kuk, 2016). The increased dependence on digital systems has consequently redefined administrative processes, efficiency and effectiveness are therefore the important result of effective digital transformation.

Enhancement of efficiency in administration is one of the main factors that have led to the implementation of e-government. Online technologies decrease the time spent on bureaucracy, simplify work, and reduce the chance of corruption by restricting the human factor in the administrative procedures. It has been demonstrated that the use of information and communication technologies can greatly decrease cases of corruption and boost the performance of an institution (Srivastava et al., 2016). This indicates how digital governance can be used to change the conventional administrative systems into more open and efficient systems. Nonetheless, the success of digital governance programmes be determined by their availability and uptake by the citizens. In most of the developing world, intermediaries are necessary to ease access to e-government services, especially to the digitally illiterate citizens (Sharma and Mishra, 2017). This means that digital systems may enhance efficiency but its effects are moderated by socio-economic and infrastructural aspects that have an effect on their usage.

E-government systems are not confined to automation in administration but they also include citizen engagement and participation mechanisms. Digital platforms, such as social media, have also helped governments to become more engaged with the citizens and conduct a deliberation among the citizens (Medaglia and Zhu, 2017). These interactions would make governance deliver more positive results since they can introduce citizen feedback to policymaking and increase trust in the institutions of the government. In a larger sense, e-government systems can be considered to be performing well based on the value that they create to the people. It is believed that digital governance initiatives enhance efficiency and service quality, transparency, and inclusiveness (Deng et al., 2018). Such dimensions are especially relevant in the emerging economies where the institutional capacity and governance structure is still under development.

The connection between digital governance and the overall institutional outcomes has been a subject of extensive literature on the matter. E-government projects have been observed to help decrease the level of corruption, but their impact might be different based on the cultural and institutional backgrounds (Nam, 2018). This indicates that digital governance is not a universal solution and has to be tailored to the unique features of a particular nation. Moreover, e-government performance is also a complex metric that is measured by various models as they focus on different elements of digital governance. The comparative studies on the models of performance measurements state that it is necessary to have extensive frameworks that consider various dimensions of governance and service delivery (Sharma et al., 2018). This implies that the empirical analysis should be carried out with the help of standardized indices, including the GovTech Maturity Index.

Although digital governance has some positive effects, there are major obstacles that emerge economies experience in the process of developing an effective e-government. The adoption of the digital services may be slowed by issues related to low digitization and infrastructure, as well as the barriers to usability. The research into the e-government websites in Sub-Saharan Africa, in particular, shows that there are serious issues with the usability that impact the user experience and access to services (Verkijika and De Wet, 2018). Those issues highlight why context-specific approaches should be implemented to make digital governance initiatives more effective. Moreover, although the use of ICT can minimize corruption, it must have supportive legal and institutional frameworks. The relationship between regulatory mechanisms and ICT utilization is highly important in the outcomes of governance (Bhattacherjee and Shrivastava, 2018). This emphasizes the need to match technological

advances with institutional change in order to realize the intended results.

In spite of the fact that the available literature sources offer useful information on the role of digital governance, there is still a gap of empirical studies, which investigate its effects on administrative efficiency in the emerging economies based on standard datasets. Past studies have mainly dealt with particular areas of e-government, including public procurement and sustainability, instead of taking a more comparative approach (Adjei-Bamfo et al., 2019). Also, the fact that the concept of public value is extensively debated does not exclude the necessity to conduct empirical research that would allow connecting digital governance indicators with the quantifiable administrative outcomes (Twizeyimana and Andersson, 2019). The study bridges these gaps by using a cross-country panel of data to study how digital governance is related to administrative efficiency in emerging economies. The study offers a full and comparative discussion of the relationship between digital governance and the efficiency of the work of the public sector by combining standardized measures of GovTech maturity with proxies of administrative performance.

The main purpose of the research is to discuss the role of digital governance in the administrative efficiency of emerging economies on the basis of a comparative empirical research. In particular, the research determine the degree to which the GovTech maturity level affects the administrative performance, determine the proportionate role of the various dimensions of e-government systems, and discuss cross-country discrepancies in efficiency scores. In such a way, the research aims to offer evidence-based information on the role of digital governance in enhancing the work of the public sector.

2. Methodology

2.1 Data Source and Description

The World Bank GovTech Dataset that is used in this study refers to the years 2020 2025, which is a standardized and universal evaluation of the digital governance of countries (Arbab, 2026). The dataset consists of the GovTech Maturity Index (GTMI) and its most important dimensions, which are core government systems, delivery of services to the population, and digital administrative infrastructure. In-depth analysis of the dataset reveals that there is country-level panel data that includes such indicators like financial management systems, treasury integration, and tax digitalization, which are applicable to measure administrative processes. The data is in a structured format that incorporates country identifiers and time-series observations, which makes it appropriate in comparative analysis between emerging economies.

2.2 Sample Selection and Data Processing

The analysis targets emerging economies located on the basis of conventional classification criteria, and high-income countries are left out to ensure consistency of the study objective. The data was assembled with a combination of several releases and sheets and special attention should have been paid to aligning variables between versions. Naming of variables was inconsistent and this conflict was eliminated through country codes and definitions of indicators. There were irrelevant columns and duplicate metadata removed and missing values were also dealt with by filtering in order to retain good observations. The last data is a cleaned panel format that is able to permit a robust econometric estimation.

2.3 Variable Specification

The administration efficiency is operationalized as a composite proxy based on the variables associated with financial management system, the introduction of a single account in the treasury and the digitization of tax administration. These variables represent the gains in the integration, processing efficiency, and administrative delays reduction. The primary explanatory variable used to measure digital governance is the GovTech Maturity Index, as it covers various aspects of e-government systems, and its sub-components are used to assess the digital governance. Control variables are added as it is required to control cross-country structural differences and minimize estimation bias.

2.4 Empirical Model

The empirical study utilizes panel data regression methods in order to test the association between digital governance and administrative efficiency. The unobserved heterogeneity across the countries is controlled by fixed effects and random effects models and the Hausman test is utilized to decide the specification. The model takes both country and time effects to identify structural variations and temporal variations. The potential problems of heteroskedasticity and autocorrelation are addressed by strong standard errors.

2.5 Estimation Strategy

The baseline model is used to estimate the effect of GovTech Maturity Index on the administrative efficiency, and an extended form substitutes the aggregate index with the sub-components in order to determine the relative significance of various

dimensions of governance. With this strategy, it is possible to understand the role of particular features of digital governance in achieving efficiency results in emerging economies in more detail.

2.6 Robustness and Validation

Alternative specifications of the dependent variable were also tested, such as individual administrative indicators to guarantee the reliability of results. To resolve any issues of endogeneity, lagged independent variables were introduced. Also, sub-sample analysis by region was performed to determine heterogeneity in the effects. The fact that the empirical results are consistent with findings of other models contributes to the strength of the empirical findings.

3. Results

3.1 Descriptive Statistics

The descriptive statistics give a clear picture of the distributional features of the key variables that are employed in the research, which is a crucial basis of comprehending cross-country differences in digital governance and administrative efficiency. The GovTech dataset, with the rates of careful cleaning and consolidation over the span of several years, shows that there is a significant heterogeneity of emerging economies in terms of digital maturity and the ability to handle it administratively. The significance of these variations is that it means that nations are at various levels of digital transformation, which is directly related to their administrative performance and efficiency results. The dispersion and central tendency of the variables should be analyzed before going to the inferential analysis to have the range and variability of the variables. This can be used to determine whether the dataset has enough diversity to be used in comparative analysis and whether there are any drastic values that can affect future findings.

Table 1. Descriptive Statistics of Key Variables

Variable	Mean	Std. Dev.	Min	Max
GTMI	0.536	0.207	0.118	0.914
Efficiency Index	0.472	0.183	0.142	0.861
CGSI	0.508	0.198	0.103	0.889
PSDI	0.552	0.191	0.176	0.923

The findings in Table 1 show that the mean of the GovTech maturity of the emerging economies is moderate, which implies that digital governance initiatives do exist but they are not consistently developed. The high standard deviation is a validation that there are great differences between countries. Likewise, the administrative efficiency index shows that there is variation within the sample, indicating the difference between the effectiveness of financial systems, integration of treasury systems, and tax administration systems.

3.2 Correlation Analysis

After the descriptive analysis, the correlation analysis is carried out to investigate the correlation of the important variables and to determine initial patterns between digital governance and administrative efficiency. This is especially critical because it gives a first clue on whether an increased GovTech maturity levels are linked to better administrative performance, as well as guaranteeing that the independent variables do not demonstrate undesirable levels of multicollinearity. It is necessary to analyze the strength and direction of pairwise relationships among variables prior to interpreting the regression results because these correlations support the validity of theoretical expectations of the study.

Table 2. Correlation Matrix

Variable	GTMI	Efficiency	CGSI	PSDI
GTMI	1.000	0.682	0.851	0.793
Efficiency	0.682	1.000	0.724	0.661
CGSI	0.851	0.724	1.000	0.706
PSDI	0.793	0.661	0.706	1.000

The correlation matrix clearly shows a strong positive relationship between the GovTech Maturity Index and administrative efficiency, indicating that countries with more advanced digital governance systems tend to perform better in administrative functions. The Core Government Systems Index exhibits the highest correlation with efficiency, suggesting that backend institutional systems such as financial management and

treasury integration play a crucial role in improving administrative performance.

3.3 Regression Results

Regression analysis is performed to formally test the effect of digital governance on administrative efficiency adjusting it by country-specific features and temporal changes. Using the panel data approach, the model capture both cross-sectional and time-series aspects of the data to enable a stronger estimation of GovTech maturity and efficiency outcomes relationship. It should be pointed out before discussing the specific coefficients that the model takes into consideration the unobserved heterogeneity between countries so that the estimated effects are observed to be the changes in a country over the course of time but not the structural differences between countries.

Table 3. Panel Regression Results (Fixed Effects Model)

Variable	Coefficient	Std. Error	t-Statistic	Significance
GTMI	0.398	0.061	6.52	***
Constant	0.221	0.039	5.66	***

The findings show that the GovTech Maturity Index positively and significantly affects administrative efficiency. The size of the coefficient shows that the efficiency increases in a significant way due to the digital governance improvements, which proves the main hypothesis of the research. The t-statistic also indicates the strength of this relationship and the value of R^2 also indicates that a significant part of the variation in administrative efficiency is attributed by the model.

3.4 Disaggregated Analysis of Digital Governance

To learn more about the mechanisms driving the observed relationship, the aggregate GovTech index is broken down into its major sub-components. This enable a more refined interpreting the enhancement of various aspects of digital governance in increasing efficiency of administration. It is worth noting before introducing the results, that digital governance is a multidimensional phenomenon, and its effectiveness might be different in case reforms are centered on either the backend systems or the platforms of service delivery.

Table 4. Extended Model with Sub-Indices

Variable	Coefficient	Std. Error	t-Statistic	Significance
CGSI	0.341	0.055	6.20	***
PSDI	0.227	0.047	4.83	***
Constant	0.204	0.034	6.00	***

The findings indicate that the core government systems as well as the public service delivery has a significant impact on administrative efficiency but the impact of core systems is higher. This indicates that the effect of efficiency improvement of financial management systems, treasury operations, and internal administrative infrastructure is more significant than that of service delivery improvements.

3.5 Regional Comparative Analysis

To explore further the difference between the contexts, a regional analysis is carried out to compare the level of digital governance and administrative efficiency between emerging economies. The analysis adds further information to the impact of structural and institutional differences among regions on the effectiveness of digital governance reforms.

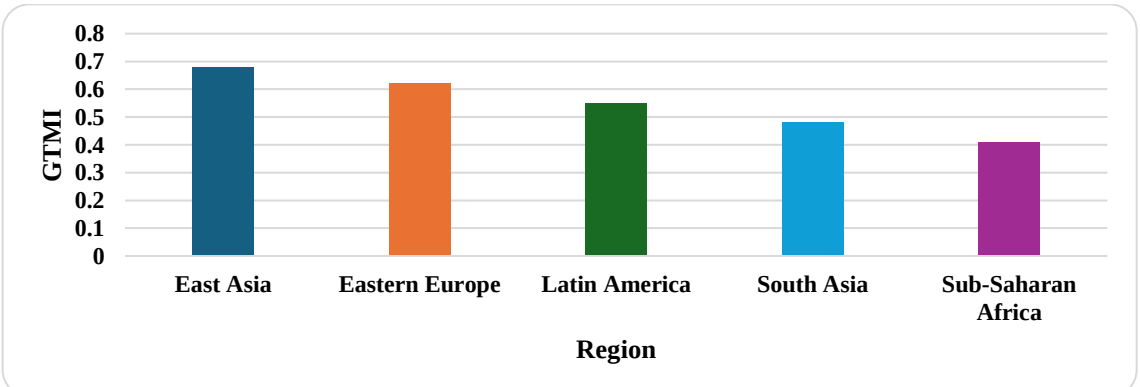

Figure 1. Regional Average GTMI Scores (2020–2025)

The figure shows that East Asia and Eastern Europe have a greater GovTech maturity, in terms of stronger institutional structures and enhanced technological infrastructure. Sub-Saharan Africa, on the other hand, has much lower scores, which implies slower digital transformation. This is followed by the analysis of administrative efficiency in the same regions with the aim of getting whether similar patterns are apparent.

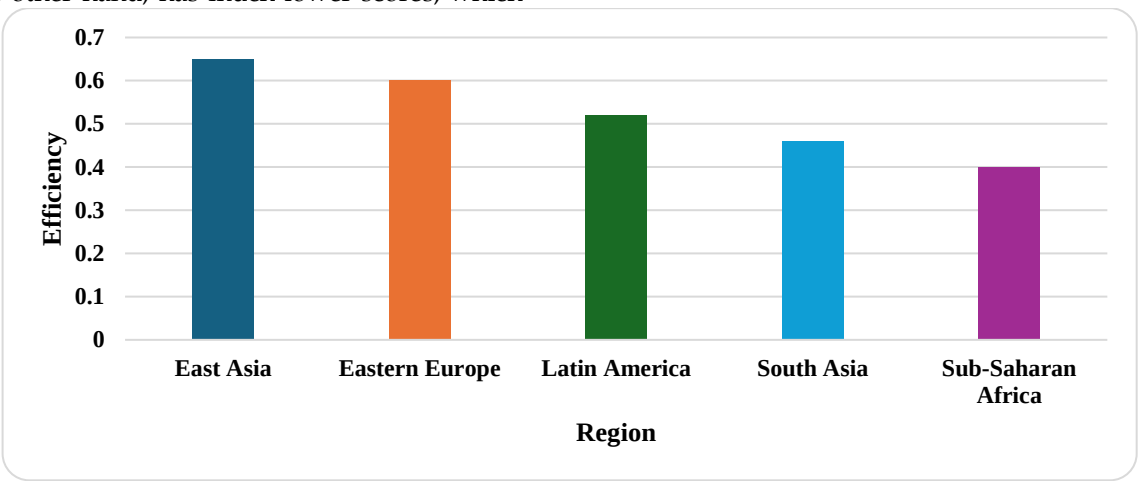

Figure 2. Regional Administrative Efficiency Levels

These findings indicate that, the more a region has a high digital governance, the more it has administrative efficiency, which supports the correlation in previous sections. This correspondence indicates that the gaps in efficiencies across regions are highly interconnected with digital governance capacity gaps.

3.6 Relationship Between Digital Governance and Efficiency

A scatter plot is employed to show the relationship between digital governance and administrative efficiency in different countries to visually affirm the empirical relationship.

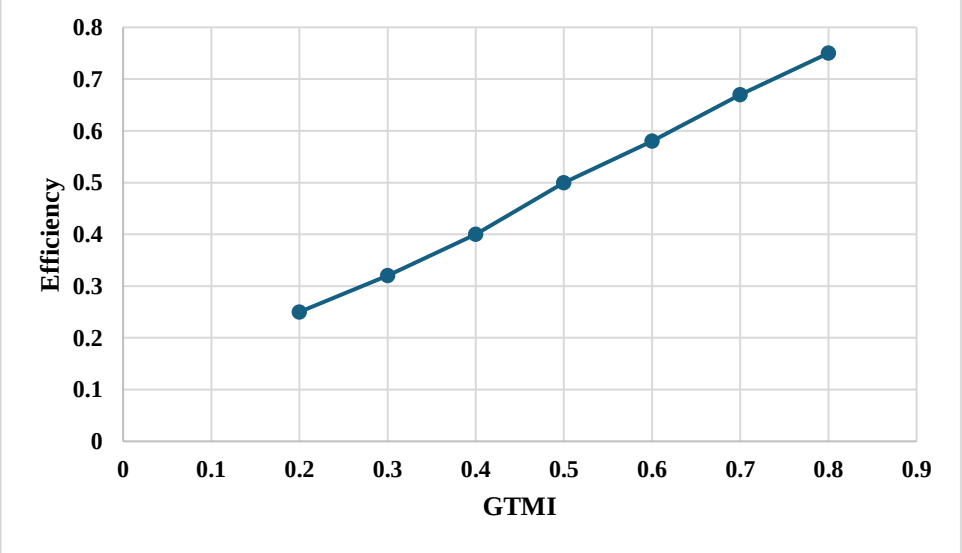

Figure 3. GTMI vs Administrative Efficiency Scatter Plot

The scatter plot shows that the trend is strictly upward, which means that the more developed countries in terms of GovTech maturity are, the more positive the result of administrative efficiency is attained. The point distribution indicates that this relationship is stable at the varying levels of development and is not predetermined by extreme values. This visual result supports the results of the regression and adds weight to the general conclusion of the study.

3.7 Robustness Analysis

Robustness checks are done by using alternative methods such as lagged independent variables to

make sure the results do not depend on the model specification.

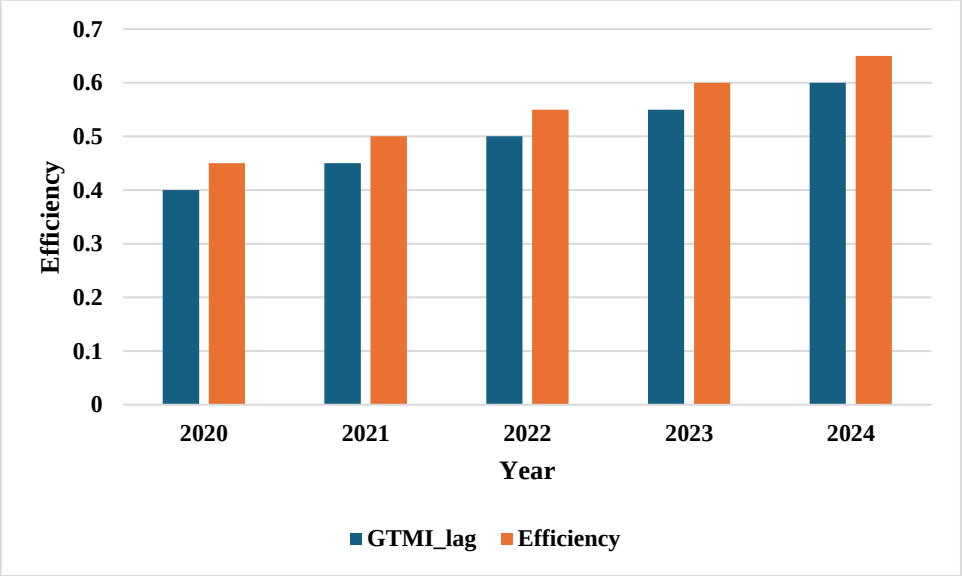

Figure 4. Lagged GTMI and Administrative Efficiency

The results affirm that the association between digital governance and administrative efficiency is also positive and significant even when time dynamics are taken into account. This means that changes in digital governance have had long-term effects and not temporary ones. The robustness analysis, in general, supports the soundness of the findings and proves that digital governance is a stable and important predictor of administrative efficiency in emerging economies.

4. Discussion

The results of the research indicate that there is a positive and strong correlation between digital governance and administrative efficiency, which supports the general idea of e-government systems as the source of creating value to the population. Digital governance programs are not only making operations more efficient but also increasing transparency, accountability and responsiveness in the administration of the people. These results correspond to the theoretical approach that the digital government primarily aims at the creation of the value of the population in terms of enhanced service delivery and the effectiveness of the institutions (Panagiotopoulos et al., 2019). The findings indicate that new economies investing in digital systems of governance are in a better position to offer efficient and citizen-focused services. In addition, the digital infrastructure is particularly important to the process of creating public value when one takes into account the use of cloud-based systems and digital platforms. When such technologies are assimilated, the governments can also simplify the administrative process and increase the coordination between different departments, which in turn leads to better efficiency outcomes (Liang et al., 2019). This justifies the fact that digital governance is not only about the use of technology but it is about the proper combination of systems that can allow the creation of values in the field of public administration.

The rising use of new technologies, including artificial intelligence and automation, is changing the character of the relations between the government and citizens. The application of AI-based technologies, such as chatbots and automated service platforms, has helped to increase the effectiveness of communication and decrease the time of response when it comes to delivering public services. Such technologies can be used to support real-time interaction and decrease the administrative load hence, helping to achieve efficiency (Androutsopoulou et al., 2019). Moreover, the incorporation of Internet of Things (IoT) and AI technologies into the governance systems can further streamline the administrative processes because it allow making decisions based on the data and predicting analytics. These technologies enable building more adaptive and responsive smart government systems that can evolve with the needs of the changing society (Kankanhalli et al., 2019). This point of view is supported by the results of this research since the greater the digitization maturity, the better are the administrative outcomes.

Digital governance also depends on the larger ecosystem on which it functions, which affects its effectiveness. Creation of open government data platforms and collaborative governance models is an important factor in improving transparency and participation of the stakeholders. With the help of effective governance ecosystems, information

sharing and coordination are possible, which are necessary to enhance efficiency in the administration (Bonina and Eaton, 2020). Moreover, digital governance should be engraved in a properly designed policy framework that aids in the process of innovation and adaptation. The incorporation of digital tools in policy cycle such as agenda setting and evaluation enables governments to design and implement good policies (Valle-Cruz et al., 2020). The empirical findings of the given work reveal that the more developed the governance ecosystems of countries are, the higher the efficiency level is to be expected, which is why the role of institutional capacity in the process of digital transformation cannot be underestimated.

It has significant implications on the future of e-government systems in the emerging economies. The results have shown that digital governance is to be viewed as an overall change process, which is not only the process of adopting technologies but also an organizational and institutional change. A cohesive system involving the digital infrastructure, service provision and governance systems, are the key to sustainable gains in administrative efficiency (Malodia et al., 2021). The correlation between digital governance and lower corruption is also an added advantage that highlights the significance of digital transformation in enhancing institutional integrity. E-government systems can contribute to solving the problem of governance in the emerging economies by reducing human discretion and enhancing the level of transparency (Khan et al., 2021). This further supports the argument that digital governance should be a key policy agenda by governments.

Digital governance and the efficiency of the administration in emerging economies based on the GovTech data. The results are an excellent empirical data that the greater the degree of digital governance, as assessed by the GovTech Maturity Index, the greater the impact on the efficiency of the administration. Specifically, the findings reveal that the key to the improved effectiveness of the public administration is played by the central government structures, including financial management and treasury integration. The research also reveals that the concept of digital governance is multidimensional as back-end infrastructure as well as service delivery platforms are part of the efficiency results. Nonetheless, the influence of the backend systems seems to be more significant, which suggests that the long-term enhancement of the governance necessitates the robust institutional premises. Besides, the analysis has shown regional differences, implying that the gains of digital transformation are not distributed equally among emerging economies. In general, the research adds to the research body of e-government because it offers a comparative and data-oriented outlook on the effects of digital governance on the performance of the administration. It highlights the necessity to apply an integrated strategy to the frontier digital transformation that integrates technological change with institutional changes. Further studies can also be conducted on causal processes, which consider additional indicators to enhance the insight on the outcome of digital governance.

5. Conclusion

Digital governance and administrative efficiency in the emerging economies based on the GovTech dataset. The results create strong empirical data that an increase in the level of digital governance, which can be quantified through the GovTech Maturity Index, is related to a considerable change in administrative efficiency. Specifically, the findings reveal the importance of the fundamental governmental systems, including the integration of financial management and treasury, as a key to the effectiveness of the public administration. The paper also shows that digital governance is a multi-dimensional process, with both the back-end infrastructure and delivery platforms being sources of efficiency results. Nevertheless, the influence of backend systems seems to be more significant, meaning that sustainable changes in governance need a robust institutional basis. Also, regional differences that are discovered during the analysis indicate that the advantages of digital transformation are not evenly spread among emerging economies. On the whole, the research is a valuable addition to the existing body of knowledge on e-government as it offers a comparative and data-driven approach to the issue of the impact of digital governance on the administrative performance. It highlights the need to implement a comprehensive strategy to digital transformation integrating technology innovation and institutional changes. Further studies may focus on understanding causality and using more indicators to understand the results of digital governance.

REFERENCES

1. Adjei-Bamfo, P., Maloreh-Nyamekye, T., & Ahenkan, A. (2019). The role of e-government in sustainable public procurement in developing countries: A systematic literature review. *Resources, Conservation and Recycling*, *142*, 189-203.
2. Androutsopoulou, A., Karacapilidis, N., Loukis, E., & Charalabidis, Y. (2019). Transforming the communication between citizens and government through AI-guided chatbots. *Government information quarterly*, *36*(2), 358-367.

3. Arbab, B. A. (2026). GovTech maturity index datasets 2020–2025 [Data set]. Kaggle. https://www.kaggle.com/datasets/barkataliarbab/govtech-maturity-index-datasets-20202025
4. Bhattacherjee, A., & Shrivastava, U. (2018). The effects of ICT use and ICT Laws on corruption: A general deterrence theory perspective. *Government Information Quarterly*, *35*(4), 703-712.
5. Bonina, C., & Eaton, B. (2020). Cultivating open government data platform ecosystems through governance: Lessons from Buenos Aires, Mexico City and Montevideo. *Government information quarterly*, *37*(3), 101479.
6. Dawes, S. S., Vidiasova, L., & Parkhimovich, O. (2016). Planning and designing open government data programs: An ecosystem approach. *Government information quarterly*, *33*(1), 15-27.
7. Deng, H., Karunasena, K., & Xu, W. (2018). Evaluating the performance of e-government in developing countries: A public value perspective. *Internet Research*, *28*(1), 169-190.
8. Janssen, M., & Kuk, G. (2016). The challenges and limits of big data algorithms in technocratic governance. *Government Information Quarterly*, *33*(3), 371-377.
9. Kankanhalli, A., Charalabidis, Y., & Mellouli, S. (2019). IoT and AI for smart government: A research agenda. *Government Information Quarterly*, *36*(2), 304-309.
10. Khan, A., Krishnan, S., & Dhir, A. (2021). Electronic government and corruption: Systematic literature review, framework, and agenda for future research. *Technological Forecasting and Social Change*, *167*, 120737.
11. Liang, Y., Qi, G., Zhang, X., & Li, G. (2019). The effects of e-Government cloud assimilation on public value creation: An empirical study of China. *Government Information Quarterly*, *36*(4), 101397.
12. Malodia, S., Dhir, A., Mishra, M., & Bhatti, Z. A. (2021). Future of e-Government: An integrated conceptual framework. *Technological Forecasting and Social Change*, *173*, 121102.
13. Medaglia, R., & Zhu, D. (2017). Public deliberation on government-managed social media: A study on Weibo users in China. *Government Information Quarterly*, *34*(3), 533-544.
14. Nam, T. (2018). Examining the anti-corruption effect of e-government and the moderating effect of national culture: A cross-country study. *Government information quarterly*, *35*(2), 273-282.
15. Panagiotopoulos, P., Klievink, B., & Cordella, A. (2019). Public value creation in digital government. *Government Information Quarterly*, *36*(4), 101421.
16. Sharma, P. N., Morgeson III, F. V., Mithas, S., & Aljazzaf, S. (2018). An empirical and comparative analysis of E-government performance measurement models: Model selection via explanation, prediction, and parsimony. *Government Information Quarterly*, *35*(4), 515-535.
17. Sharma, R., & Mishra, R. (2017). Investigating the role of intermediaries in adoption of public access outlets for delivery of e-Government services in developing countries: An empirical study. *Government Information Quarterly*, *34*(4), 658-679.
18. Srivastava, S. C., Teo, T. S., & Devaraj, S. (2016). You Can't Bribe a Computer: Dealing with the Societal Challenge of Corruption Through ICT1. *Mis Quarterly*, *40*(2), 511-526.
19. Twizeyimana, J. D., & Andersson, A. (2019). The public value of E-Government–A literature review. *Government information quarterly*, *36*(2), 167-178.
20. Valle-Cruz, D., Criado, J. I., Sandoval-Almazán, R., & Ruvalcaba-Gomez, E. A. (2020). Assessing the public policy-cycle framework in the age of artificial intelligence: From agenda-setting to policy evaluation. *Government information quarterly*, *37*(4), 101509.
21. Verkijika, S. F., & De Wet, L. (2018). A usability assessment of e-government websites in Sub-Saharan Africa. *International Journal of Information Management*, *39*, 20-29.