

## A TRANSFORMATIONAL APPROACH IN PUBLIC MANAGEMENT FOR E-GOVERNMENT, A SYSTEMATIC REVIEW

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### **Abstract**

The planning, administration, and management of resources, the organization of new technological forms for a better government, the streamlining, optimizing, and transparency of new processes in the public system, in accordance with the requirements of each government, are all ways that public management can influence technological advancement in public entities. The goal is to evaluate public management and electronic governance as a transformative strategy that seeks to enhance operations and services through the use of ICTs in a transparent manner with citizen participation. Descriptive study is the research methodology used, with 46 papers chosen from reputable databases. We discovered electronic governance methods in the results, including the usage of the internet, websites, blockchain, big data, artificial intelligence, digital identification, microdata, and information systems.

**Keywords:** Public management, information technologies, public entities, governance, efficiency, quality, productivity, e-government, internet use, public services.

### **1. INTRODUCTION**

Paradoxically, information technologies are the tools that bring about the most fundamental changes in public administration, but they are also the tools that elude the vast majority of management reformers in terms of understanding, training, or funding for significant public computerization initiatives. Medina (2020), (2020), Intense challenges, high rates of complete or partial failure, reluctance to change, and a lack of strategic direction from authorities or superiors are all issues that large technology projects encounter around the world, which are frequently seen as issues for IT leaders. De Grande (2020) demands that the government go online to bring forth new improvements in citizens' access to information and support the progress of public institutions.

The issue of access to public services, such as electronic stations, is hampered by digital gaps, regulations, labour, and infrastructure, which has resulted in losses in local governments and whose solution is framed in ICT to enhance services as part of an e-government in Indonesia, according to Rachmawati (2021). According to Hariguna et al. (2021), e-government in Switzerland seeks to connect citizens with the state through online services, mobile services, and e-participation in services, as well as by analysing the outcomes of the person's behaviour and seeking to build strong relationships between citizens and the state through high-quality e-government and connections to fill in any gaps. Technology is established as an instrument, as a political, economic, cultural, and social space within public institutions, and we find ourselves immersed in an information age, according to Abramitov and Dneprovskaya (2021).

In St. Petersburg, public service correspondence systems are shown to be effective by Vidiasov & Vidiasova (2021). Although the administrative procedure was left unchanged, the digital signature and electronic signature were validated in some provinces. These provinces were eager to establish the fundamentals and lay new foundations for electronic management, digital identity, digital files, remote management, electronic signature, and government interoperability. According to Stoica and Bogdan (2020), coordination between the entities is required in Romania to accomplish all of this. This coordination is essential through defined regulations that enhance the quality of service provided to users in the direction of an online model. Governmental shortcomings in the services offered by local governments in Portugal have permitted the development of databases as an e-government mechanism that affects effective governance, according to SA, et al. (2021).

An electronic government's role is to facilitate communication obstacles, increased output, equal access to information, and the elimination of time constraints. The phases of an electronic government are also comprised by engagement, presence, transaction, and transformation, according to Garca & Plasencia (2020). Contrarily, the lack of ethics in e-government practises and the absence of democratic values have caused governments to consolidate their power, there is no democracy, and citizenship is manipulated. For this reason, better governance will be possible with the appropriate application of information technologies among institutions and citizens. In order to address the shortcomings of the previous system of public administration, according to Rodriguez (2020), transformational processes have emerged in the new transformational public management, enabling an interlinear country for implementing the universal approach at home, work, and universities, in the educational institutions of each community, and working with solutions among political allies are all examples of communication-information-society as part of an electronic government, information management, technological management, open government, focused within the sustainable development objectives.

According to Vera & Martnez (2020), the advancements in electronic government have not significantly contributed to the decline in corruption in Mexico. As a result, the complementation of other elements is required for the realization and administrative planning of e-government before public policies. Electronic management is characterized by promoting the path to information, monitoring of public entities, and clear accountability. According to Kapsa and Musial (2020), Poland's communist system and economic difficulties have delayed the introduction of digital technology into the public sector. However, the country's advancement in the area of electronic government has had a significant impact, as evidenced by the use of these services by its citizens and public institutions.

According to Backer et al. (2020), in order to ensure good electronic management in China, there must be access, friendliness, security, renewal, convenience, responsibility, transparency, and private sector involvement in the face of the new, transformative electronic services that are replacing traditional paper services. According to Ziyadin et al. (2020), in order to achieve good e-government, public employees must be able to increase their productivity through the use of technologies, change their attitudes, and be equipped with the skills and abilities necessary to implement solutions with a well-designed and reliable infrastructure to give the government electronic support and make optimal public management. In order to streamline the assistance of public services to the user and boost their satisfaction with the government,

the sketch of a series of delimited blocks and an electronic money system lighten administrative procedures and reduce in costs, depending on their operations, payments, and revenues of electronic management. The management focused on cloud computing will offer new mechanisms for transforming governance management because traditional forms of government in China are not yet able to adapt to new technological innovations. This will allow them to work more effectively and be able to offer good public value to society, according to Zhang (2020). Organizations become intelligent administrations thanks to electronic management, which modifies the social, Identifying irregularities in public procurement, for instance, or analyzing vast volumes of data to assist society in making decisions—such as prioritizing based on assessed variables to which businesses should be subject to administrative controls—are just two examples. Apleni & Smuts (2020) note that in spite of this, developing country governance faces challenges with transformation issues, such as a lack of e-government interoperability, a lack of resources, and a lack of management accountability. For this reason, it is thought of as a framework for the implementation of e-government, where government sectors are guided and prepared in their implementation programmes, transforming smart governments, and improving political, According to Cordovez et al. (2018), the identification of numerous recurring issues has impacted the ease of management of e-government websites. These issues could be resolved through the usability of patterns and the simplicity of these models developed under the approach of using electronic government, in order to provide the digital tools of websites and avoid issues that interfere with the ability of the population to use the services provided by the public or private portals. According to Martnez (2018), there are barriers preventing the development of municipal electronic government due to the limited solidity of the municipalities in the Sonora region in terms of position and technological conduction in infrastructure (websites, computers, computer products, and telephone lines).

According to Henrique et al. (2018), the development of electronic governance services in Brazil is impacted by the measurement of input and skill in using the internet, which is sustained in Amartya Sen's expertise under the investigation of microdata of the analysis of information technologies. The rise of various public services, such as e-government sponsorship, also has a significant impact on internet connections at home and at work (Internet Management Committee in Brazil). Przebylovicz et al (2018) analysis on e-government and smart city development. To create new technological mechanisms that can empower citizens to actively participate in decision-making in public administration, citizen engagement is required. According to Moreira and Hidalgo (2020), given the technological drive and adoption of e-government in Ecuador, the structure of telecommunications and human talent, as well as the strategic regularization of broadband, of the institutions that make up the Central Public Administration of the Government, will improve efficiency and optimize public funds in the state and local sector, which is dominated by interoperability. According to Menacho et al. (2020), investing in new machinery, software, and infrastructures is a significant step in introducing technology and fostering organizational improvement. There isn't much information about the institutions that need to be established on their websites, which is why it is the Ministry of Communications and Transport. Armenta (2018), the inopportune technological insertion, aspects with which information technologies would be implemented in the state, changing it into an electronic government, not only is it enough to have the

technology, the public collaborator must have knowledge of the computer for which he must be trained.

According to Dema et al. (2021), there are effective factors like trust, preparation, participation, and leadership that contribute to the success of e-government, highlighting two crucial factors the strategy and the vision and mission. However, the use of e-government in the offices of Bulo Village is not optimal given the inefficiency that exists on the protection of an electronic base. the impact of e-government development on MENA (Middle East and North Africa) countries' governance metrics. According to Dhaoui (2021), the use of digital technology to use information defined within its policies must be incorporated into the reforms of the public sector, which encourages competitive business sectors, improvement in the efficacy of the state, and the control of corruption which encourages the development of capacity, more responsible behavior, and competitive business sectors.

In addition to indicators that systematize the momentum and progress of the process, Prokofiev et al. (2021) emphasize the significance of legislative practises from which it will be possible to introduce contemporary technologies in the state and municipal public administration regimes in Russia. They also plan to evaluate the effectiveness of e-government where the computerization system is being developed within the public administration and interacted in three areas: 1. Local and governmental entities. 2. Public and private institutions. 3. State governments and other governmental bodies. According to Politankyi et al. (2021), the operability of information security as a critical component of e-government in Ukraine is possible on the basis of a good, modern infrastructure for state information security with a systemic, complex appearance; conditioned by internal and external components.

Hidayatullah et al. (2019) proposes applying a software system utilizing the cascade method and office-centered planning with SQL and Studio Visual as a managed database mechanism whose result focuses on processing information in a timely manner and providing an optimal service to the citizens of Sumbawa in Indonesia. The focus of Sik & Bou's (2019) study is on a comparison of two nations' e-governance systems: on the one hand, the United States, which aims to normalize the Management and Budget Agency's (AMB) function and work with the cabinets to promote and have budget support for the implementation of e-governance; and on the other, Korea, which aims to reduce paperwork by processing it electronically. Both countries highlight the value of promoting digital technology as a e-government management transformational process.

According to Pysarenko et al. (2019), security measures like the biometric digital signature are necessary to ensure the validity of the detail and content of documents as well as the signature, which is embodied in the occasion of uses and benefits with the introduction of electronic government using the mechanism of verifying electronic identity. Big data, cloud computing, and mobile internet, according to Zhou & Chen (2019), are the most recent challenges for social management in China. Having an open service medium, reference service, and e-government as a platform in the management of services and the monitoring programme based on mechanisms, information bases, and exchange of these, as well as their cooperation with businesses that support the government and the people, is a platform for these challenges. According to Ramesh et al. (2019), the electronic contribution is very important to e-government and e-management. To measure the CePI, an index of electronic supply of services for citizens (CePI) is proposed, with the citizens' electronic participation in the services

provided in the administrations by the deputy in the physical, economic, personal, and social spheres. However, there are emerging nations in development, leaders, and vigilantes for whom the study focuses on a bibliometric analysis on electronic government, according to Paiva (2019). The analysis around e-government in the Ibero-American community is irregular, as clarified by the development of public policies. In their discussion on the value of studying the big data issue and soft computing techniques like electronic government in 2019, Dwivedi et al.

According to Borthakur and Bhuyan (2019), the development and growth of many countries are focused on the use of e-governance, reducing corruption and increasing transparency in the various government processes and operations. The state of India has launched a number of e-Kranti, e-seva, and Smart Governance projects in an effort to have an impact on e-government. A municipal e-government tribune was presented as an assessment system (MEPA) where the strengths and weaknesses of the municipal e-Gov tribunals are described, and in turn acts as an instrument of planning and administration by its citizens. According to Ribeiro et al. (2019), it is not enough that public services are only provided through electronic government tribunals; these must be co-produced with citizen intervention and public representatives who collaborate and interact. The transition from e-government to e-government and its notion of distinction are examined by Pavlyutenkova (2019). Being a breadth of e-government, she traces a theoretical definition and considers a set of key peculiar qualities within the strategic government policy environment that addresses digital conversion. E-government focuses on providing public services in the e-form and digital government. Ejdys et al (2019) analysis of Poland in comparison to other countries highlights the level of security observed as a factor that shapes the level of trust that determines the advancement of e-government technology. The provision of services in public management enables citizens to treat legitimate content through the use of the internet as ICT tools.

According to Oze (2019), the ways to enhance institutions in Northern Cyprus are based on the advancement of web-based technologies as a new theory of e-government. This theory is centered on comprehending the value of the method of disposing of government information in accordance with e-government, which requires that its service be managed more effectively by its public managers. According to Kaya (2019), three definitions of technological use for decision-making are taken into consideration as part of the evolution of electronic government: social networks as a source of communication; big data as a processing of the decisions made from the investigation of available data; and artificial intelligence, where devices will have an impact on human decision-making and be one of the most effective electronic forms in this use. In particular, the adoption and usage of e-government are highlighted by Khrais et al. (2019) in Jordan, where policies enable citizens to use their social capital and trust to boost the daily operation of their e-government.

This study, which has as its main goal to evaluate the significance of electronic government with a transformational approach, is justified by the transformational process that e-government has been developing that allows achieving favourable results in the various processes and services provided by public institutions within public management. The specific goals for public management centre on 1. Analyze the state of e-government in public management. 2. To examine the implementation and use of ICTs to improve operations and services in a transparent manner with citizen participation, allowing the state and citizens to

come closer together in encouraging participation in the management of an electronic government as the primary source to promote society's involvement in public management.

## 2. METHODOLOGY

The article's review outlines a methodology that was created using data from a qualitative study. It involves choosing scientific articles related to the subject of the study and using keywords to search through various databases both with and without filters. It also takes into account open access and the publication dates, which are described in more detail below.

Table 1. Search method of selection and amount of collected items

Base of date	Engine of research	Filters Used	Total, of articles		
			No filter (exclusion)	With filter (inclusion)	Selected
Scopus	Electronic government	Year 2018-2022 Open access, Spanish and Portuguese	22,562	1,859	29
Scielo	E-government	Year 2018-2021 Article-Review article, English, Spanish and Portuguese	86	28	9
EBSCO	E-government	Year 2018-2021 Full text, English	308,459	29,123	6
Dialnet	E-government	Year 2018 and 2020 Magazine article, English	1,881	681	2

## 3. RESULTS

The data for the research project was gathered by looking through publications that were indexed and used in various databases, as stated in table 2 below:

Database	Year of publication				Total
	2018	2019	2020	2021	
Scopus	1	13	7	8	29
Scielo	4	0	5		9
EBSCO	0	0	4	2	6
Dialnet	1	0	1		2
Total					46

As a result, the most significant contributions made by the articles chosen from the compilation of the databases consulted for the particular study are emphasized in Table 3, which will help readers gain a deeper insight and knowledge of the subject under investigation:

Table 3. Articles distributed according to relevant contribution

N°	Article title	Relevant Concept/Contribution	Contextualization	Author
1	E-government and accessibility: Availability of service on state online platforms in Argentina.	Technological systems refer to the set of all factors, variables, interrelated processes that will allow a person to change his environment, whose main purpose is to simplify a job or perfect his life well-being.	It serves to increase productivity and simplify the various day-to-day processes that occur in different public entities, thus enabling a standardized mechanism for knowledge transfer between an office or between units.	De Grande (2020)
2	Analysis of the e-government initiative at the local government level in the city of Bandung, Indonesia.	The new initiative in the provision of public services, using ICT, must be well communicated and consulted with the executing units.	It allows to achieve better levels of performance, improve the productivity of the country, redesign processes and activate controls.	Rachmawati (2021)
3	E-government in Romania: a case study.	Modernize processes through current computer systems in order to streamline some bureaucratic processes and / or completely eliminate others.	Develop computer systems to increase public services based on a simplification of administrative processes supported by information technology.	Stoica & Bogdan (2020)
4	The informational dimension of Public Administration for Governance and "electronic" and "open" government.	The informational, communicative and technological magnitude, under the triad "information-communication-technology", as new dimensions of public management:	Develop a communication-information-society interlinearn as part of an electronic government, with informational, technological and open government management focused on sustainable development objectives.	Rodriguez (2020).
5	Public policies on e-governance and corruption in Mexico.	Accessibility to information, transparency and monitoring of public institutions by citizens and other actions of public policies of electronic government necessary that cause a positive impact on corruption within public management.	Promote information, clarity in accountability and monitoring of public organizations, impacting on the decrease in corruption.	Vera & Martínez (2020)

6	A forecast of Chinese e-governance.	The electronic services provided, to achieve offices without papers and with greater transparency, responsibility and accessibility, the central and municipal governments.	Leave aside the traditional paper-based service, in an electronic service showing transparency, responsibility and accessibility.	A. Baker et al (2020)
7	Electronic government in the Public Entities of	Current trends in information and communication technologies, and the	Update ICT trends in public management for the good relationship between	Menacho et al (2020)
10	Effectiveness of ICT in promoting e-governance in India.	E-governance has minimized corruption, making its user-related government processes and operations transparent.	The benefits of implementation can be: reduced corruption, more transparency in public administration through faster service, savings in public spending, and reduced time and costs.	Borthakur & Bhuyan (2019)
	Peru.	improvement of the government-to-citizen relationship.	the State and citizens.	
8	Current information technologies in public administration in Russia.	Effectiveness of e-government and interaction in public administration between: 1. State structures and citizens of the country.  2. Government and private companies.  3. Government structures and levels of government.	Have connectivity through electronic government: Inhabitant-state and private organizations- Government organizations and state levels.	Prokofiev et al (2021)
9	Desktop-based population data information system to support Sumbawa Electronic Government in Rhee District.	Software development using the waterfall model and desktop-based programming with Visual Studio and SQL Server as the database of a management system.	Process information in a timely manner providing an optimal service.	Hidayatullah et al (2019)

10	Effectiveness of ICT in promoting e-governance in India.	E-governance has minimized corruption, making its user-related government processes and operations transparent.	The benefits of implementation can be: reduced corruption, more transparency in public administration through faster service, savings in public spending, and reduced time and costs.	Borthakur & Bhuyan (2019)
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#### 4. DISCUSSION

According to Medina (2020), the access to electronic government has been a transformational approach in public management since its inception through technological information systems. This approach seeks to achieve the development and performance of its processes or modern forms of management of public government institutions and their relationships with citizens, businesses, and other governmental entities. I concur with Rachmawati (2021), who said that as part of the transformative strategy of e-government, ICT will enable the enhancement of services. It is also comparable to what Prokofiev et al. (2021) note, who claim that with the use of information technology systems, connectedness between citizens, commercial and public organizations, and government agencies, as well as their various levels of State, is achieved. We note that, as part of the modernization of the State, the various governments, public or private institutions, as well as their citizens, must apply and adapt to the new forms of public management through the use of ICTs, as part of the transformational approach in its processes or new forms of electronic government, in addition to disseminating knowledge of the study's findings in society. Despite any shortcomings or digital gaps that may exist in their governance, certain countries are fully developed in their implementation of e-government, while others are in the adaption phase. The analysis of e-government in Ibero-American society, according to Paiva (2019), is inconsistent; despite this, there are emigrating countries, vigilantes, and leaders who want to advance the management of e-government. It is also similar to what was stated by Kapsa & Musial (2020), who claim that despite Poland's economic problems and the communist system's delays in integrating technology into the nation's public administrations, the country's advancement of electronic government has had a significant impact on how people and public organizations use services in line with what Borthakur and Bhuyan (2019) said, nations are developing and expanding by focusing on the use of e-government, which reduces corruption and increases the transparency of their administrative procedures. Similarly, according to A. Baker et al. (2020), although China's electronic services are delayed, both central and local entities are working to reform the country's traditional paper service for service electronic.

In order to increase public services while streamlining administrative procedures and improving communication between the various public agents and the general public, computer systems or e-government access mechanisms have been developed Stoica & Bogdan (2020). According to Vidiyasov & Vidiyasova (2021), the website will make it possible to resolve disputes involving public services in St. Petersburg. In contrast, Niknezhad et al. (2020) claim that the improvement of e-government will be accomplished by implementing user-friendliness

patterns. They do this by using blockchain as a system for the exchange and storage of annotations and electronic payment to delimit administrative processes, reducing costs and generating e-government revenues. The findings highlight the various electronic government access methods that will improve connectivity and relationships with the entities involved in public management and help them implement procedures with ethics and values that will make them more effective, efficient, transparent, and of higher performance for citizens. Governmental entities, both public and private, contributing to the development and prosperity of societies and countries.

## 5. CONCLUSION

In order to achieve public access and transparency of inquiry, we define electronic government as the use of information technologies and the internet. This would strengthen the relationship between citizens and the public sector, encourage citizen participation in government management, and serve as a potent tool against corruption.

E-government is associated with the structures and procedures put in place for the delivery of e-services, which depend on a strong commitment from managers, public servants, civil services, political dynamics, and judicial and parliamentary functions. This calls for a government with a comprehensive service delivery model that can communicate with various levels of government.

Governments must create apps and systematic programmes (such as those utilizing blockchain, big data, artificial intelligence, microdata, etc.) so that people can use their corresponding processes through smartphones. By doing so, they will be able to interact with users directly and be better able to process payments for essential services like electricity, water, tenure, and property ownership.

Information technologies and democracy work together to organize knowledge richness and innovation in both the public and private sectors. Digital certificates and signatures are a crucial component in solving the problem of administrative simplicity.

## CONFLICT OF INTEREST

The authors of the developed article profess absolutely no interest in the provided activity.

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