

# E-Government Public Policy Design in Realizing Transparency and Accountability of Government

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## Abstract

Advances in information technology have created broad opportunities for improving bureaucracy and public services. The public can participate directly in the processes of planning, implementation, and supervision of public policies. This can be addressed through a digital technology-based governance system known as Electronic Government (e-government). E-government is more than merely a website on the internet; it encompasses broader functions, including processes and structures that facilitate electronic interactions between the government and the public. As autonomous regions, district and municipal governments in Gorontalo Province have implemented public e-governance policies. Ideally, these policies should have generated positive impacts on governmental transparency and accountability. This study focuses on the design of public e-governance policies in realizing transparency and accountability, with two sub-foci: (1) the evaluation and development of e-governance dimensions, and (2) the main aspects of e-governance policy. The complexity of the concept and implementation of e-governance requires the use of a qualitative approach. The results of this study are expected to contribute to district and municipal governments in Gorontalo Province in enhancing the effectiveness of public e-governance policies in achieving transparency and accountability.

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## 1. Introduction

E-government in Indonesia began to gain attention in 2001 following the issuance of Presidential Instruction No. 6 of 2001 concerning Telecommunications, Media, and Informatics, which stipulated that government officials should utilize telematics technology to support good governance and accelerate the democratization process. However, in its implementation, this policy has not yet received full support from all government stakeholders, as indicated by the suboptimal application of information technology in public services.

The emergence of Information and Communication Technology (ICT) has provided broad opportunities for the public to monitor government activities and has improved information management practices. Computerized systems have assisted governments in managing information, while the internet and various forms of digital communication have become important instruments across all sectors. Likewise, in the public sector, electronic media have become essential tools in service delivery. The use of internet networks has accelerated communication processes between government agencies and the public. The waiting time for obtaining information has become shorter, and the flow of data from one unit to another agency or organization has significantly increased.

E-government refers to the use of systems, applications, and computer networks in service procedures administered by government organizations. From this general definition, it can be understood that e-government refers to the utilization of information technology in government institutions or public institutions. Its purpose is to establish governance relationships involving the government, private sector, and society in a more efficient and effective manner. Various forms of electronic-based information services, such as e-government, e-banking, e-library, e-education, and e-commerce, have been developed by information service providers through different basic applications, with the aim of simplifying information services to be faster, more accurate, and more accessible (Hardjaloka, 2014).

In much of the literature, e-government is also associated with the concept of digital government or online

government and is usually discussed within the context of transformational government. The essence of this concept lies in the use of internet technology, which is expected to serve as a medium for accelerating information exchange, providing service facilities, and facilitating transactional activities with citizens, business actors, and government institutions themselves. In this regard, it must be emphasized that the transformation aspect is more important: e-government is not merely about the use of technology, but also about ensuring that technological utilization improves policy-making systems and public service delivery.

The transformation of the governmental system from a centralized to a decentralized model has given significant meaning to the implementation of regional autonomy by granting broad, real, and responsible authority to local governments in a proportional and equitable manner. The changes that have occurred and are still taking place demand the establishment of a government that is clean, authoritative, transparent, and capable of responding effectively to the demands of change. The government is expected to fulfill two closely related public demands: first, the demand for public services that serve the broader interests of society and are reliable and trustworthy; and second, the demand for public aspirations to be heard. Both of these demands are strongly related to access to information.

The development of Information and Communication Technology (ICT) today is unstoppable, and almost all sectors, both public and private, have implemented information system management (Prihartono, 2023). At least three factors explain the importance of e-government in community development. First, communication between the public sector and society offers new forms of participation and interaction. The time required for communication becomes shorter, while the level of service convenience increases. In addition, new forms of transactions can enhance public understanding and acceptance of government actions. Second, the application of information technology in public services enables the elimination of bureaucratic structures and complicated procedures. The realistic goals to be achieved through cyberspace are service efficiency and financial savings. Online information in public services can also improve the level of public knowledge regarding the processes and requirements of public services. Third, e-government also provides local information. The use of the internet in the public sector allows local communities to compete and adapt to global developments.

One form of implementing the concept of New Public Service can be observed in the phenomenon of administrative services conducted through the internet. Public service functions provided by authorities to citizens through the internet have multiplied significantly. Detailed information can be accessed easily at any time. This should be viewed as a transformation of service functions that were previously delivered by civil servants. Most public service components no longer provide direct face-to-face services but instead offer administrative processes that can be carried out online by the public. The potential impact of this service model is the direct improvement of both the quality and quantity of public services. Information is no longer a scarce commodity but has become a universally accessible resource. Direct contact with government, such as physical visits, is no longer necessary, and this can reduce costs arising from direct interactions. The combination of the ideas of New Public Management (NPM) with the utilization of information technology, as reflected in the phenomenon of internet-based administration, has given rise to the concept of digital government applications, more popularly known as Electronic Government (e-government).

Gorontalo Province is one of the autonomous regions in Indonesia, consisting of five regencies and one municipality. As an autonomous region, this area has become one of the targets for the implementation of e-governance policies. Since its initial implementation across all autonomous regions in Indonesia, public e-governance policies have been expected to bring significant changes to government governance. However, evaluations of the implementation of e-governance policies are not easily accessible as a source of public information.

In the context of this study, the discussion focuses on the Evaluation of Public E-Government Policies in Realizing Transparency and Accountability in Government Governance. Transparency and accountability remain ideal expectations as forms of government responsibility in carrying out governance authority. The urgency of this research lies in three main aspects: (1) public e-governance policy is an important dimension in building good governance; (2) the outcomes of public e-governance policies are expected to provide transparency and accountability in all governmental activities; and (3) this research can serve as a reference for providing corrections and improvements to public e-governance policies, particularly in the region of Gorontalo Province.

Based on the background above, the focus of this research is: (1) How are the evaluation and development of e-governance dimensions carried out? and (2) What are the main aspects of e-governance policy?

## 2. Literature Review

### 2.1 The Importance of E-Government

According to Indrajit et al., (2005), the implementation of e-government will not function effectively without change management in employee resource strategies and other state assets. To achieve this, change management requires several strategic steps to support the implementation of e-government, namely:

- Business Process Reengineering requires a total review of the existing work processes. E-government should not merely create alternative access to government services, as this would only increase costs. More than that, e-government represents a new work process in which government services are integrated into a better system. Therefore, the transformation should not only be visible from the public access side, but also in the overall work processes, which need to be reviewed regularly.
- Staff and employees require new ways of working, enabling the establishment of a “virtual office.” A virtual office refers to a condition in which every staff member can perform their tasks from anywhere without the need to physically attend the office every day. Leaders are required to change their leadership approach by making performance and work outcomes the basis for employee evaluation, rather than physical presence. This, of course, requires well-planned change management.
- Facilities that support remote work and working from home are essential. Through the use of technological facilities and the internet, staff members can carry out almost all public service processes without needing to come to the office.
- Adequate skills and knowledge are necessary for all employees. Education and training are the best ways to prepare employees to work effectively when e-government is fully implemented.

Therefore, e-government is necessary to improve accuracy, clarity, responsibility, and transparency in government management, with the aim of increasing public trust in public services, particularly those provided by the bureaucratic apparatus. Accessible media are needed so that the public can, at any time, obtain information regarding policies, programs, and activities implemented by local governments in order to participate, whether in the form of support, objections, or criticism (Retnowati et al., 2008).

### 2.2 E-Government Policy in Indonesia and the Pattern of Bureaucratic Cultural Change

The role of information technology in supporting operational and managerial systems within government institutions has become increasingly important in recent years (Majid, 2021). The emergence of the Industrial Revolution 4.0 era has fundamentally transformed the way people think, live, and interact with one another across various human activities. This transformation is not limited to technology alone but extends to other fields as well. Due to the ease of internet access and the widespread use of digital technology, societal behavior has gradually shifted from manual or traditional systems to digital systems (Prabawati et al., 2019).

The aspiration to achieve good governance has become one of the main agendas of reform, which local governments are expected to implement consistently (Gandia & Archidona, 2008). Electronic Government (e-government) is a form of implementing information technology in government services to the public. The development of e-government represents an effort to establish electronic-based governance in order to improve the quality of public services effectively and efficiently.

The traditional paradigm of government services, characterized by slow bureaucracy, complicated procedures, and uncertainty, is being addressed through the implementation of e-government. Within the e-government paradigm, public service delivery is no longer carried out through physical documents and personal interactions, but rather through electronic systems, thereby minimizing direct personal interaction in service provision. The orientation of service delivery has shifted from focusing solely on production cost efficiency toward emphasizing flexibility, supervision, and user satisfaction.

In Indonesia, initiatives toward electronic government were introduced in 2001 through Presidential Instruction No. 6 of 2001 on Telematics (Telecommunications, Media, and Informatics), which stipulated that government officials must utilize telematics technology to support good governance and accelerate the democratization process. The issuance of Presidential Instruction No. 3 of 2003 concerning National Policies and Strategies for E-Government Development marked a serious step by the Indonesian government in utilizing information and communication technology in governance processes and in creating an information-based Indonesian society.

Bureaucratic reform, driven by demands for the establishment of a government system that is clean, transparent, and capable of responding effectively to changes, has produced two main concepts in the understanding of e-

government: first, the use of information technology, and second, the purpose of its utilization. The implementation of e-government has generated four models of relationships:

- G2C (Government to Citizen): the delivery of public services and information from the government to the public.
- G2B (Government to Business): electronic transactions in which the government provides various forms of information required by the business sector to conduct transactions with the government. An example of this is the e-procurement system.
- G2G (Government to Government): online communication and information exchange between government departments or institutions through integrated databases, resulting in greater efficiency and effectiveness.
- G2E (Government to Employees): initiatives that facilitate service management, internal communication, and interactions among government employees.

The implementation of e-governance information technology will make government administration more efficient and effective in terms of public service delivery, administrative processes, and internal communication. Furthermore, e-government will lead society toward a greater level of internationalization, particularly in the development of international networks through internet-based access media. Society becomes increasingly well-informed about matters related to public issues. This clearly brings cultural changes, both within government institutions and in society at large.

People who previously lacked the means to access information and communicate with the government can now do so more easily and quickly through e-government. Consequently, public demands for government accountability have become increasingly higher. The influence of technology on the interaction process between the government and society, as well as among societal components themselves, has clearly become more effective and can be directly experienced by the government, which inevitably must be prepared to meet these growing public demands.

This situation cannot be addressed merely through discourse on debureaucratization and deregulation. The need for debureaucratization and deregulation, covering institutional aspects, leadership, and public administration systems, in the context of improving the quality of public services, is undeniable. However, to date, the process has not yet shown significant results. There are still visible signs of hesitation and reluctance to fully implement measures that carry the consequence of streamlining the bureaucratic structure, considering that the bureaucracy in Indonesia has already grown excessively large.

### 3. Research Method

The implementation of e-government is expected to enable all government activities to be carried out electronically, thereby facilitating policy functions and public service delivery (Maria et al., 2022). This study comprehensively reveals the inconsistencies in the evaluation of public e-governance policies in achieving transparency and accountability. Therefore, a qualitative approach was employed.

The type of research used in this study is applied research, as it seeks to examine comprehensively and empirically how public e-governance policy evaluation contributes to the realization of transparency and accountability. Applied research, particularly in the context of generating policy recommendations for government, aims to address practical problems and improve real-world conditions. In the academic sphere, this method has consistently received attention because it focuses on solving real problems faced by society at large. This applied research demonstrates the necessity of evaluating public e-governance policies in order to achieve transparency and accountability. The field research activities were conducted following the stages below:

#### 3.1. Researcher's Presence

As the primary instrument of the study, the research team collected data on e-governance in the context of transparency and accountability in government governance in Gorontalo Province. This research was conducted from April 2025 to September 2025. The data collected consisted of public policy documents related to the implementation of e-governance within district and municipal governments in the region of Gorontalo Province.

#### 3.2. Data Sources

The data sources consisted of two types:

1. Primary data sources, namely data obtained directly from the research object through observation and interviews. In this study, primary data were obtained from actors and implementers of e-governance in the realization of transparency and accountability in government governance.
2. Secondary data sources, namely data obtained from previous research, journals, and internet sources discussing the Evaluation of Public E-Government Policies in Realizing Transparency and Accountability in Government Governance.

### 3.3. Data Collection Techniques

The data collection techniques used in this study were as follows:

1. Observation. The researchers conducted direct observations and compiled factual and empirical field notes regarding the Evaluation of Public E-Government Policies in Realizing Transparency and Accountability in Government Governance in the region of Gorontalo Province. Since Gorontalo Province consists of five regencies, this research was specifically focused on the government of Gorontalo City.
2. Interviews. Interviews were conducted to obtain comprehensive data regarding the Evaluation of Public E-Government Policies in Realizing Transparency and Accountability in Government Governance in Gorontalo Province. The interview data requirements were fulfilled by five key informants consisting of: two e-governance policy implementers, one community member, one public policy expert, and one information technology expert. The criteria for informants included having sufficient time, knowledge of e-governance policy management, an understanding of public service delivery, and expertise in the utilization of information technology.

### 3.4. Data Analysis Techniques

The data analysis process was carried out in four stages:

1. Data Collection. Data obtained from observations and interviews were documented in field notes consisting of two parts: descriptive and reflective notes. The field notes focused on the Evaluation of Public E-Government Policies in Realizing Transparency and Accountability in Government Governance.
2. Data Reduction. Data reduction was used to sharpen the analysis, classify, direct, and discard irrelevant information, as well as organize the data, thereby facilitating the researchers in drawing conclusions regarding the Evaluation of Public E-Government Policies in Realizing Transparency and Accountability in Government Governance.
3. Data Presentation. The purpose of data presentation in this study was to integrate information in order to describe the actual conditions that occurred. To facilitate the researchers' understanding of the information, both as a whole and in specific parts of the findings, the research team developed a narrative on the Evaluation of Public E-Government Policies in Realizing Transparency and Accountability in Government Governance.
4. Conclusion Drawing. Conclusion drawing was carried out throughout the research process, similar to the data reduction process. After sufficient data had been collected, preliminary conclusions were drawn, and once the data were complete, final conclusions were formulated regarding the Evaluation of Public E-Government Policies in Realizing Transparency and Accountability in Government Governance.

### 3.5. Data Validity Checking

In this study, the validation of data was carried out by the research team through task-sharing using the following methods:

1. Prolonged Observation. Prolonged observation enabled the establishment of closer relationships between the researchers and informants, creating openness and mutual trust so that no information was withheld and the researchers could obtain complete data. In qualitative data collection, extending the duration of the study was conducted by considering the field conditions and the data already collected.

Through this extended period, the researchers were able to increase the credibility of the collected data, sharpen the research focus, and obtain more comprehensive information.

2. Triangulation. The research team employed triangulation to compare data obtained from in-depth interviews with field observation data, as well as other relevant data related to the evaluation of public e-governance policies in realizing transparency and accountability.
3. Peer Discussion. Peer colleagues who possessed knowledge and expertise in evaluating public e-governance policies in achieving transparency and accountability were involved in discussions with the research team to review and analyze the data collected from the field.

### 3. 6. Research Stages

This study was conducted in four stages, namely:

1. Preparation Stage. The research team ensured that all field research requirements were fulfilled. This included task distribution according to expertise, preparation of interview guidelines, data collection forms, schedules, and other research needs.
2. Implementation Stage. After obtaining research permission from the relevant government authorities, the researchers entered the field to gather as much information as possible from informants, policy actors, and policy implementers regarding the evaluation of public e-governance policies in realizing transparency and accountability.
3. Analysis Stage. The research team systematically and comprehensively organized all collected data so that the information could be easily understood. Based on their respective expertise, team members shared analytical tasks to examine the data obtained, review it, categorize it, and identify the meanings derived from the research findings.

Reporting Stage. The research team prepared the preliminary report, finalized the report in a written and systematic form, conducted research dissemination, and produced scientific publications.

## 4. Research Findings

E-government policies aim to improve the quality of public services and the effectiveness of government governance (Irma et al., 2023). E-government refers to the use of internet-based Information and Communication Technology (ICT) and the World Wide Web (WWW) in delivering government information services to the public, businesses, and other organizations (Legi et al., 2020). E-government is more than merely a website on the internet; it encompasses broader functions, including processes and structures that facilitate electronic interaction between the government and society. These interactions are intended to simplify and promote the realization of democracy as well as more transparent and accountable governance.

It can be argued that e-government requires transparency and efficiency in government administration. The solutions offered by e-government do not merely require technical sophistication but, more broadly, demand a comprehensive reorientation of bureaucracy, particularly in fostering awareness to perform duties and functions in a neutral and genuine manner in carrying out the mission of public service. Technological changes will inevitably bring about transformation, both in administrative systems and in organizational culture. Recognizing the difficulty of implementing such changes, it must begin with a strong commitment from leadership to adopt and implement information technology professionally. Another crucial aspect that must not be overlooked is the need for effective interaction and synergy among society, the private sector, and the government as an effort to optimize the implementation of e-government.

### 4.1. Evaluation and Development of E-Government Dimensions

The stages of e-government implementation development in Indonesia are divided into four phases:

- Web Presence, which refers to the establishment of regional government websites on the internet. At this stage, basic information needed by the public is displayed on government websites.
- Interaction, where regional government websites provide facilities for interaction between the public and local government. At this stage, the information presented becomes more diverse, such as download facilities and e-mail communication within government websites.

- Transaction, where, in addition to interactive facilities, public service transaction facilities are also provided by the government.
- Transformation, in which government services are enhanced in an integrated manner.

Presidential Instruction (Inpres) No. 3 of 2003 concerning National Policies and Strategies for E-Government Development explains that the implementation of e-government in each government institution must refer to the national stages of e-government development while adapting to the specific conditions of each institution, including:

- The priority of electronic services to be provided;
- The condition of the available information infrastructure;
- The condition of current service activities;
- The condition of available budgets and human resources.

Every change, even when intended for improvement, will inevitably generate various reactions, ranging from doubts about its effectiveness to outright rejection based on hidden personal interests (*vested interests*) that may conflict with the objectives of the change itself. This is especially true for changes implemented in the government sector, which are far more complex compared to those introduced in the private sector. This complexity cannot be separated from the influence of bureaucratic governance patterns that have been practiced for decades and have long been considered the norm. Therefore, carrying out reforms or renewal in this sector clearly requires strong and consistent efforts.

The implementation of e-government as an innovation strategy within government organizations, much like innovation strategies in business organizations, clearly requires appropriate change management for its success. Implementing e-government means carrying out a series of changes or cultural reforms (*cultural change*). Change management in this context focuses on how stakeholders in public service transition from traditional approaches to modern management, and from the pre-information and communication technology era toward a new era in which the environment changes rapidly through the advancement of highly sophisticated information and communication technologies.

The implementation of e-government will encourage the occurrence of cultural transformation, which also implies changes in value systems, not only within government bureaucracy but also throughout society as a whole, including the private sector and non-governmental organizations (NGOs). This transformation shifts bureaucratic culture from a closed system toward a transparent culture, where demands for transparency are becoming increasingly stronger at local, national, and even international levels (between countries). This clearly requires mental readiness as well as adequate human resource skills.

There are three types of challenges in implementing e-government: tangible, intangible, and very intangible challenges. Tangible challenges include limitations in physical infrastructure such as telecommunication networks and electricity. Intangible challenges include financial constraints and limitations in human resources. Meanwhile, very intangible challenges involve the courage of local government officials to implement e-government, along with the enforcement of necessary measures as consequences of such implementation, such as maintaining discipline against violations and building a knowledge society within government bureaucracy itself.

The many obstacles and challenges in e-government implementation can actually be overcome, as long as the government's goodwill and commitment to implementing the system remain strong and consistent. Society, especially in developing countries, will rapidly evolve into a digital society, characterized by several indicators, including:

- The increasing number of people using computers;
- The decreasing cost of communication;
- The ease of use and access to up-to-date information becoming a necessity;
- The growing demand for *mass personalization* and *instant gratification*;
- The increasing practice of *telecommuting*;
- The increasing level of global economic activities.

A society characterized by computer literacy and an information-oriented mindset, increasingly spread across regencies and municipalities, represents one of the main driving forces of e-government. This is closely related

to the importance of public participation in good governance, where such participation is carried out through the utilization of information technology. Public participation, together with the involvement of the business sector in e-government, will be further encouraged by shared interests in achieving more professional and higher-quality public services, as well as greater awareness of governance principles. In this context, building linkages among various stakeholders is essential to realize good governance. Therefore, e-government becomes a necessity and the most effective means to achieve it, considering the various advantages of e-government as discussed earlier.

#### 4.2. Important Dimensions in E-Government

The importance of e-governance dimensions (digital-based government governance) cannot be separated from efforts to improve the quality of public services and government transparency. E-governance is not merely about the use of technology, but rather about how technology is utilized to enhance the relationship between the government, society, and other sectors. Based on field studies, several main reasons why the dimensions of e-governance are important can be identified as follows: 1) Digital service delivery: E-governance aims to provide citizens and businesses with convenient and accessible digital channels to access government services and information. This can include online portals for obtaining licenses, paying taxes, applying for permits, accessing public records, or receiving notifications. 2) Transparency and accountability: E-governance promotes transparency by making government information and processes accessible to the public through digital platforms. It allows citizens to access public data, monitor government activities, track the progress of projects, and hold government officials accountable for their actions. 3) Citizen participation: E-governance encourages citizen engagement and participation in the decision-making processes of governance. It provides mechanisms for citizens to provide feedback, participate in online consultations, contribute to policy discussions, and collaborate with government agencies in problem-solving and service improvement. 4) Efficiency and effectiveness: By digitizing administrative processes, e-governance aims to streamline government operations, reduce bureaucracy, and enhance the efficiency and effectiveness of public service delivery. It enables automation, data integration, and online transactions, which can lead to cost savings, improved resource allocation, and faster response times. 5) Digital infrastructure and cybersecurity: E-governance requires robust digital infrastructure, including secure networks, data centers, and information systems, to ensure the reliability, privacy, and security of digital services and transactions. It involves implementing cybersecurity measures to protect government systems and citizens' data from unauthorized access, cyber threats, and information breaches. The important dimensions of e-governance can be illustrated in the following figure.

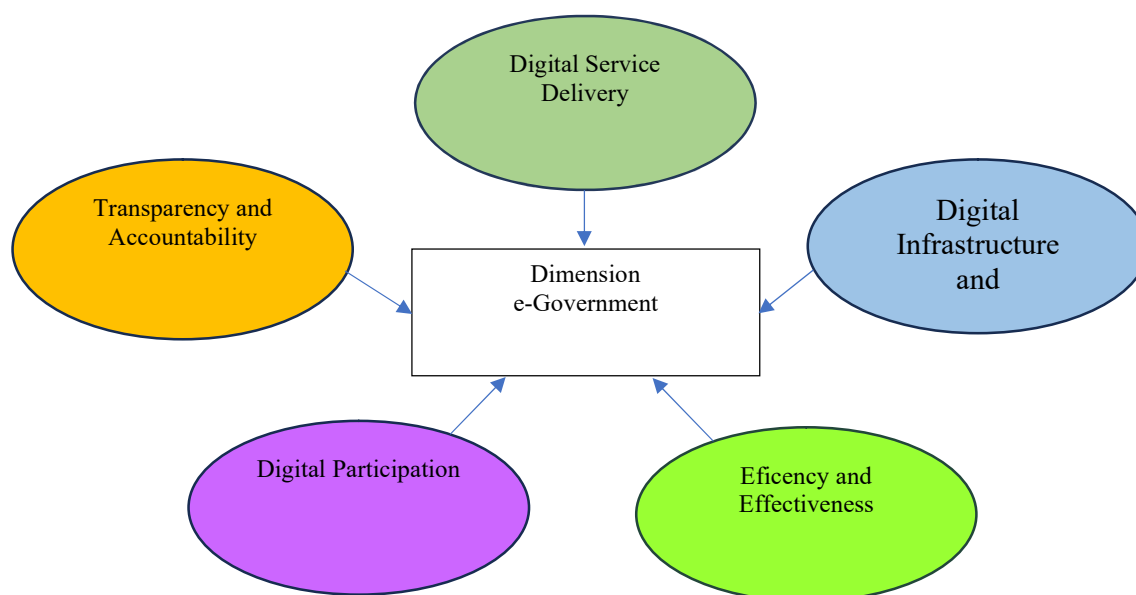


Figure 1. The important dimensions of e-governance

#### 4.3. Main Aspects of E-Governance

E-governance represents a paradigm shift in the way governments interact with citizens, businesses, and other institutions. It utilizes digital tools to improve public administration and participatory governance. Clarifying its scope helps distinguish it from traditional governance and e-government. E-governance involves the application of Information and Communication Technology (ICT) in government services, facilitating interactions between Government to Citizen (G2C), Government to Business (G2B), and Government to Government (G2G). It is a model of digital governance that enhances service delivery, communication, and information exchange both within and beyond the public sector. E-governance differs from e-government because it emphasizes not only service delivery but also democratic participation and decision-making processes.

#### 4.3.1. Core Functions and Objectives

The primary objective of e-governance lies in transforming government processes to become more efficient, transparent, and inclusive. These objectives reflect a broader shift toward accountable and citizen-oriented public services. Digital tools play an essential role in achieving these functions effectively.

The main goal of e-governance is to improve the efficiency, effectiveness, and transparency of government through digital means. It simplifies administrative processes and makes governance more accessible to citizens, businesses, and other stakeholders. The implementation of ICT enables a more accountable and participatory governance model, thereby fostering trust between the government and society.

#### 4.3.2. Digital Governance and Service Delivery

Digital service delivery is at the core of e-governance, enabling governments to provide services that are faster, more accessible, and more user-friendly. This dimension emphasizes the role of ICT in eliminating administrative barriers. It represents a tangible improvement in how citizens experience government services.

E-governance facilitates seamless digital transactions, allowing online access to public services such as tax payments, business registration, and government forms. Centralized digital platforms provide citizens with easier access to government resources and information. Information and Communication Technology (ICT) enhances public administration by streamlining workflows, automating processes, and reducing bureaucratic inefficiencies.

#### 4.3.3. Citizen Engagement and Digital Democracy

E-governance supports deeper citizen engagement by opening new digital channels for public input and feedback. This strengthens democracy by making it easier for citizens to participate in governance. In addition, e-governance promotes transparency and inclusiveness in decision-making processes.

E-governance encourages citizen participation in government through digital platforms, enabling public discussions, consultations, and policy feedback mechanisms. This empowers citizens to engage in decision-making processes, ensuring that governance becomes more inclusive and representative. Digital democracy initiatives also promote transparency by providing citizens with access to government data and policymaking processes.

#### 4.3.4. Multi-Stakeholder Engagement

Effective e-governance requires collaboration beyond the public sector. Involving businesses, civil society, and academic institutions enriches policy outcomes and service design. Multi-stakeholder participation ensures broader ownership and innovation in digital governance.

E-governance operates as a network involving government institutions, civil society organizations, businesses, and private sector entities. It facilitates collaboration among stakeholders by creating digital platforms for coordination, policy discussions, and service integration. Non-profit organizations, academic institutions, and businesses play an important role in shaping policies and digital governance solutions.

#### 4.3.5. Good Governance and Ethical Considerations

Ethics and inclusiveness must be embedded in all e-governance initiatives. Protecting privacy, ensuring accessibility, and promoting transparency are essential for building public trust. The principles of good governance are strengthened through responsible digital practices.

E-governance enhances governance through principles such as accountability, transparency, responsiveness, and inclusiveness. The concept of SMART governance (*Simple, Moral, Accountable, Responsive, and Transparent*) highlights the ethical and operational standards that e-governance must uphold. Governments must ensure digital security, privacy protection, and accessibility for all, including marginalized communities.

#### 4.3.6. Technological Foundations and Innovation

Rapid technological advancements are transforming the way governments design and implement digital systems. E-governance must continuously adapt in order to effectively integrate these innovations. Technological choices influence the scale and equity of service delivery.

Emerging digital technologies, including cloud computing, Blockchain, Artificial Intelligence, and mobile connectivity, are reshaping e-governance frameworks. The integration of Information and Communication Technology (ICT) ensures the automation of government services, reduces redundancy, and improves efficiency. E-governance utilizes the internet and mobile networks to expand public services beyond physical government offices.

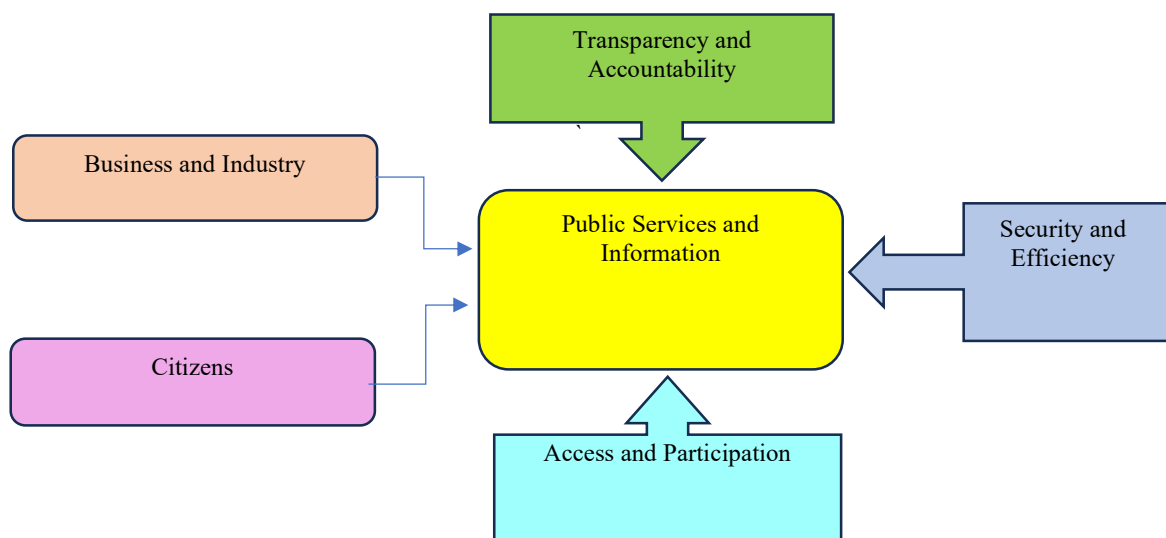
#### 4.3.7. E-Governance as a Global and National Strategy

E-governance has emerged as a strategic instrument in both national policy agendas and international development goals. It enables better public sector performance and greater alignment with global governance norms. Countries adapt their approaches based on institutional capacity, contextual conditions, and governance needs.

Governments around the world implement e-governance strategies to improve policy execution, economic management, and public service delivery. National and local governments adopt digital governance models according to their specific needs, legal frameworks, and technological capacities. International organizations such as United Nations and UNESCO advocate e-governance as a means of strengthening good governance globally.

E-governance is not merely about digitizing government services; it represents a fundamental shift in the way governments interact with citizens, businesses, and institutions. By leveraging ICT, e-governance promotes transparency, strengthens democratic participation, and improves service delivery. However, its success depends on inclusive access to digital platforms, strong cybersecurity measures, and a commitment to ethical governance principles. As technology continues to evolve, e-governance will remain at the forefront of shaping responsive, accountable, and citizen-centered government systems worldwide.

By developing an e-governance model and focusing on its core aspects, e-governance can target a governance framework as illustrated in the following figure.



As illustrated in Figure 2, the e-governance framework targets three main stakeholders: government agencies on

one side, and businesses/industry as well as citizens on the other. While businesses and citizens can more easily access government services and information, and participate more actively in public policymaking, government agencies are able to provide public services in a transparent and accountable manner—thereby improving overall efficiency and effectiveness.

## 5. Conclusion

Based on the research findings and discussion above, several conclusions can be drawn: 1. The evaluation of e-governance implementation in government is essential to ensure its positive impact on transparency and accountability in governance. Evaluation should be conducted at the end of each year using measurable indicators of good governance. The findings of this study have also produced a developed model and identified several important dimensions in the implementation of e-governance. These e-governance dimensions include: digital service delivery, digital participation, efficiency and effectiveness, digital infrastructure, and cybersecurity. 2. The main aspects of e-governance policy are crucial to be considered and implemented in order to ensure effective and efficient governance through e-governance. The key aspects identified in this study include: business and industry, citizens, security/efficiency, agencies, public services, and transparency/accountability.

Based on these conclusions, the following recommendations are proposed: 1. Governments need to adopt new dimensions in e-governance management to ensure better administrative systems and public services, particularly in terms of transparency and accountability. 2. Governments need to adapt to the key aspects of e-governance policies in order to respond to future technological challenges. By adopting these dimensions and key aspects in e-governance management and implementing them consistently and continuously, it can be ensured that transparent and accountable governance will be achieved.

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