

# E-Government, the Era of Disruption and the Future of Public Service in Indonesia

Muhammad MUSAAD

Universitas Cendrawasih, Jayapura, Indonesia

[dr.muhammadmusaad@gmail.com](mailto:dr.muhammadmusaad@gmail.com)

\* corresponding author

---

## ARTICLE INFO

### Article history:

Received 18 Apr 2022

Revised 30 May 2022

Accepted 26 June 2022

---

### Keywords:

E-Government

Era of Disruption

Information and Communication Technology

Public Service

## ABSTRACT

In the age of disruption, information and communication technology (ICT) is critical to the development of a company and the people who use it. In this day and age of disruption, the government promotes ministries and institutions to transition from manual to electronic information delivery, often known as E-Government. The whole public has access to it. The use of e-government is intended to boost public service transactions that are not restricted by time or place, and at a low cost to the community. The purpose of this research is to investigate E-Government, the age of disruption, as the future of government services in Indonesia. A qualitative investigation using a descriptive method is used in this study. The study's findings show that implementing e-government brings benefits from the economic, social, and government dimensions, as well as the perspective of public services, such as cost savings, economic development support, increased transparency, better services for the community, and participation in community empowerment. Meanwhile, in this disruptive age, the deployment of E-Government in public services via the use of Information and Communication Technology by government entities and institutions reflects this. According to the findings of this study, the performance of E-Government in public services in Indonesia is now beginning to grow in quantity. Still, in the future, it must be able to produce high-quality goods in order to keep up with other nations across the globe.

Copyright © 2022 International Journal of Artificial Intelligence Research.

All rights reserved.

## I. Introduction

Globalization is an unavoidable reality today; it must be faced by every level of society living today. Globalization is widely understood as a form of modernization marked by advances in computing, information-communication, and transportation technologies which then impact the interaction system and behavior patterns of human life in the world (Irawan, 2017). The basis of human interaction in the era of globalization has shifted from the spatial dimension to the time dimension. This reality then occurs in the pattern of services provided by the government of a country to its people (Wijaya & Surendro, 2006). The use of the internet and other information-communication technologies is an urgent need that the government must do to provide services to the community; these technologies are commonly referred to as electronic government (Silalahi et al., 2015).

E-government is a government-developed information technology system that strives to better public services by making it simpler for the public to access public information (Nur, 2014). (Nur, 2014). E-government development policies and strategies are essential for good governance and the expansion of effective and efficient public services. These policies and strategies are controlled by Presidential Instruction Number 3 of 2003, which regulates National Policies and Strategies for the Development of E-Government at All Levels of Government. As a consequence, e-government socialization must be done consistently,

persistently, and with community incentives as people do not comprehend what and how e-government programs are and the benefits they may gain (Wirawan, 2020).

The extent of preparation of the public to accept the services offered electronically influences the effectiveness and feasibility of e-government. There are six important critical aspects to consider when building e-government. Customer Preparedness, Competence Readiness, Technology Readiness, and Legal Readiness are all characteristics of corporate readiness (Al Omari & Al Omari, 2006). The e-government readiness evaluation approach covers seven ICT readiness dimensions: ICT strategy, user access, e-government initiatives, ICT architecture, business processes and information systems, ICT infrastructure, and human resources (Alghamdi et al., 2011).

In reality, e-government has seen rather hopeful improvements since the influence of e-government implementation has resulted in a pattern of major changes in the public service process (Kurniasih, 2013). E-government is thus regarded as a new model of public service capable of implementing the concepts articulated in the New Public Service paradigm (Herizal et al., 2020).

Indonesia has joined the age of e-governance during the previous two decades. This new period modifies the connection between residents, companies, and other parts of government (Word Bank, 2011) and affects the public service delivery. Public; improving relations between the government, business people, and the general public so that there is transparency that increases trust in the relationship between the various parties; and empowering the community through easily accessible information; and achieving a more efficient government are also essential goals (Rahardjo, 2001).

In Indonesia, the transformation of e-government is perpetually ongoing, and is characterized by several publishing phenomena (public agencies display data and information to the public regarding a public service, but are one-way); interact (a type of public service where service providers can interact with the community, so that they have used a two-way mode via e-mail, live chat, videoconferencing, and other online interaction facilities); and transact (a type of public service that allows citizens to transact with the government electronically); and transact (Indrajit, 2006).

Currently, practically all public services employ information systems, including online sim submissions, online passport applications, online-created personnel information systems, online tax systems, and online-orderable transportation services (Nugroho, 2017). Nevertheless, there are still several ministries, institutions, agencies, and organizations that have not innovated to their fullest potential by harnessing the complexity of the present technology. It is the responsibility of the Indonesian people as a whole to promote the optimization of industrial revolution period 4.0 and society 5.0 in order to produce unfilled gaps in online and digital community service (Reza, 2020).

According to Inpress No. 3 of 2003, the primary strategic goals of E-Government development are the following:

1. Establish information networks and public service transactions that are not restricted by time or place and are available to the public at reasonable rates.
2. Developing a collaborative connection with the corporate world
3. Establishment of communication systems and channels with all state entities, as well as facilitation of public debate.
4. Establishment of a transparent and effective management system and work process that supports transactions and services between government agencies.

Based on the aforementioned description, the researcher wishes to undertake more study, which is subsequently included into a paper titled E-Government, the Era of Disruption, and

the Future of Public Service in Indonesia. The purpose of this research is to describe E-Government in the age of disruption and its influence on the future of public services in Indonesia. Hopefully, this study will contribute to scientific advancement and serve as a resource for future studies on e-government and public services.

## II. Method

The approach adopted in this study is qualitative; this research method is used to grasp the phenomena of what the research subject feels holistically and via description in the form of words and language, on a particular natural environment, and by using a variety of natural methods (Gunawan, 2013). This is a descriptive research method using a document/text analysis strategy. The descriptive method is a research strategy that tries to describe and explain observed phenomena (Arikunto, 2010). While the kind of data collection done is documentation, namely a study of documents in the form of books, literature, and scientific journals related to the topics discussed in this publication, it should be noted that the type of data collection employed is documentation. Data analysis employs data reduction, data display, and data interpretation. Data triangulation is a technique for assessing the reliability of data.

## III. Result and Discussion

### A. Benefits of Using E-Government Applications in Public Services

Governments that use e-Government applications to enhance the effectiveness and efficiency of public services have had success in the past (Atthahara, 2018). Adopting e-Government has at least three benefits that should be evaluated, including the economic, social, and governmental aspects:

1. Economic Dimension; The benefits of e-Government in the economic dimension include lower transaction costs for higher competence with service goals, increased coverage and quality of service delivery, enhanced reaction capacity in addressing issues of poverty, and increased revenue.
2. Social Dimension; The benefits of e-Government in the social dimension are rather extensive, ranging from job creation in the third sector to enhanced education and health systems, better targeting of government services, and capacity building for the provision of safety and security. In many instances, these advantages may be evaluated politically and quantified monetarily.
3. In comparison to conventional government, the benefits of e-Government may facilitate the achievement of Good Governance by enhancing openness, transparency, accountability, or democracy. E-government may also encourage public participation, so contributing to the improvement of the present democratic system.

In practice, e-Government is the use of the internet to conduct government business and provide public services in a more efficient and service-oriented way (Sufianti, 2007). In short, the purpose of e-Government is to develop online customers rather than in-person consumers. Furthermore, e-Government attempts to deliver services without the involvement of public institution staff or lengthy queue systems in order to give a simple, affordable, and efficient service (Nurita, 2014). As a result, the key goals of this implementation are as follows:

1. Improving the quality of public services by using information technology into the governing process.
2. The creation of a government that is clean, transparent, and capable of efficiently responding to change's demands.
3. Improvement of organizations, management systems, and government work processes (Yunita & Aprianto, 2018).

E-Government may be used in the legislative, judicial, and public administration to improve internal efficiency, deliver public services, and promote democratic governance processes. According to the majority of observers, e-Government links consist of three elements:

1. Government to People (G2P) is a relationship in which the government provides internet services for the benefit of its people. G2C is a service business that focuses on the electronic communication capabilities of governments and individuals (Evans & Yen, 2007).
2. Government to Enterprise (G2B). This relationship pertains to the government's provision of information services to businesses. This sector focuses on interactions between governments and businesses in order to save costs and collect more precise data. This service aims to make it easier for governments to acquire goods, pay bills, and conduct commercial transactions more effectively, as well as facilitate the gathering of data for analysis or decision-making (Guo & Lu, 2005).
3. By exchanging information between local and central governments, Government to Government (G2G) partnerships improve service efficiency. Greater capacities in criminal detection, emergency response systems, law enforcement, and regional security are among the benefits of this industry. In the United States, for instance, local, state, and federal institutions coordinate disaster notification information (Lee & Levy, 2014).

As can be seen, the notion of e-Government may foster pleasant, easy, transparent, and low-cost contacts between government and society (G2C Government to Citizens), government and businesses (G2B), and intergovernmental ties (G2G Government to Governments Inter-Agency Relationship).

From the standpoint of public policy, e-government offers several advantages, particularly in terms of improving the efficacy and efficiency of government services (Sosiawan, 2015). These advantages include:

1. Reduce your expenses. Service delivery online or through a network may reduce administrative, relational, and interaction costs for the government and its stakeholders significantly compared to manual service delivery.
2. Increasing the Rate of Economic Growth There are several ways in which technology may be used to create a more advantageous business climate for the government. As a result, e-procurement and electronic auction methods allow for more competition and a greater number of participants.
3. Transparency and Accountability Enhancement With regard to the concept of Good Corporate Governance, e-government implementation may help to improve the transparency, control and accountability of government administration. Information and online monitoring are made freely accessible to the public as part of e-efforts government's to promote transparency in government.
4. Intensifying the Supply of Public Services If citizens are able to get information from the government without physically visiting government offices, e-government might improve public services. All of these educational tools are available around the clock, seven days a week, regardless of government agency operating hours.
5. Empowerment of the Community As a result of easy access to information, community members and other government partners may take an active role in formulating fair and democratic public policy.
6. a service provided by the electronic society Promoting ICT use in different sectors is a major benefit of e-Governance projects. The requirement for new courses and training modules in schools and universities to offer the labor market with the skills and capabilities for e-Government administration is driving the development of new courses and training modules.

#### ***B. Utilization of E-Government in the Era of Disruption for the future of Public Services***

"Making Indonesia 4.0" was revealed by President Joko Widodo of Indonesia during the 2018 Indonesia Industrial Summit. This is a national strategy for dealing with the challenges of the Industrial Revolution 4.0 period. Now that the strategy has been made public, the federal government is scurrying to be ready for the coming assault of disruption from technology. In business, the economy, and education, socialization is still promoted.

Under Article 1 paragraph (1) of the 2009 Public Services Law, "Public Service" is an action or sequence of activities related to providing products, services, and administrative services to the general public, according to the Law Number 25 of 2009. A provision in Public Services Law No. 25 of 2009 mandates that public services have a system that may be convenient to the people in light of the interaction between public services and the Industrial Revolution 4.0. Organizations must manage electronic or non-electronic information systems under Article 23 paragraph (4) of Law Number 25 of 2009 Concerning Public Services, whereas Article 23 paragraph (1) of Law Number 25 of 2009 Concerning Public Services states: "In order to provide information support for the implementation of public services, an information system of national nature must be organized."

National information systems are required by all providers of public services. Information technology is a critical component of this approach to national system fulfillment. Since industrial revolution 4.0 has begun, it is critical that government agencies prepare for this by implementing new technologies that will enable them to alter the way they provide community services. As a consequence of technology advances, crucial service components such as transparency, speed, and convenience will be realized. In order to maintain customer trust and keep the organization productive, private/private sector services are often superior because of the growing sophistication of technology in providing services (Tini, 2019).

Due to the fact that the public sector has more clients than the private sector, the government has an obligation to ensure transparency in its information systems. Therefore, in the age of the Fourth Industrial Revolution, if the government wants to gain the trust of its consumers, in this case, the community, it should begin offering public services utilizing digital technology. So that recent technological advances may benefit both the commercial and public sectors, the purpose of this initiative is to (Setiawan, 2019).

Public services are essential to a company's success across the world. To illustrate this trend, the Ease of Doing Business (EoDB) 2018 rankings place Indonesia at number 72 out of 190 nations. While EoDB 2017 was scored 91, this is an enormous leap forward. The importance of public services cannot be overstated, since they are the foundation upon which all other indicators are built. Administrative Reform and Bureaucratic Reform's socialization efforts took place throughout the country in an effort to raise the bar on public services and elevate them to international standards (Rivai, 2019).

As of now, the government's efforts to utilize computers, computer networks, and information technology to better run the government, especially public services, are rather limited. In the public sector, technology is still used by a few ministries/agencies and local governments. E-government will be in line with the Industrial Revolution 4.0 if it is embraced by all government agencies worldwide (Faedulloh et al., 2020).

Many advantages come with the democratic system we currently use when it comes to using e-government, such as speeding up communication between government agencies and the community at large, increasing accountability in government administration, saving money for the government, and making it easier for citizens to get the information they need.

Quoting the statement of Dunleavy et al. (2006) when introducing the concept of digital governance in 2005 as a replacement for New Public Management (NPM) which is widely adopted in government, they say that digital is very important in governance. Even the Professor of Politics and Public Policy at the London School of Economics and Political Science (LSE) also stated that "New Public Management is Dead, Long Live Digital Era Governance." In other words, the digital era we are currently facing in the Industrial Revolution 4.0 in governance must be implemented immediately.

The implementation and development of e-government, in addition to the need for reliable technical support, is also very much determined by the support for the competence of Human Resources (HR) staff/employees of each work unit. The number of human resources who are capable of using computers is sufficient, and it is shown that 25% of respondents stated that the number of human resources capable of using computers in their work units was less than ten people, and 25% of respondents stated that between 10 and d. 25 people. 25% of respondents stated between 25 s.d. 50 people, and 25% said more than 100 people. The educational background of computer staff/employees who can use computers is shown that 50% of respondents stated that their education

was undergraduate, 25% stated that it was because of their diploma, 25% stated that it was because of their training, 50% stated that it was because of the course, and 75% stated that it was due to self-study (Habibullah, 2010).

The implementation of e-government will be optimal if all competent staff/employees utilize all the facilities according to their respective main tasks, functions, and management. To be able to take advantage of e-government optimally. All respondents stated that all human resources require additional special education competence in the use of e-government. 75% of respondents stated the need for additional special education in the competency field of e-government programmers, 75% stated the need for internet competence, 100% stated the need for additional computer technician competencies, 75% stated the need for additional operator competencies, and 75% stated the need for additional word processing and competence data. The priority for additional special education needed was stated by 50% of respondents stating the field of programmer competence, and 50% of other respondents did not provide answers (Habibullah, 2010).

To support additional special education in e-government, 50% of respondents stated the need for leadership policies regarding learning assignments for staff/employees through work-based learning assignments, and 50% of respondents stated the need for a complete study permit. Other suggestions developed from respondents are the need for a map of HR development in e-government. E-government should be made available to all segments of society. These findings imply that HR is prepared to deploy e-government. However, improving the e-government competency of each staff/employee based on their key activities and functions, management, and talents requires the commitment of all parties (Habibullah, 2010).

Based on some of the theoretical research discussed above, it is becoming more clear that e-Government inherits administrative reform initiatives guided by the New Public Management (NPM) concept. The public's knowledge of the "customer democracy method" has expanded the gap between the government and people at this time, and public faith in the government has declined. Governments throughout the globe now recognize information and communication technology as a valuable instrument for increasing public participation in policymaking, increasing public confidence in government, and positioning the public in the information era. By boosting openness, efficiency, effectiveness, and political engagement, information and communication technology may assist the government in restoring faith in public institutions (Moon, 2003).

The degree of information exchange between people and the government influences the level of public trust. The people's perception of a distance and knowledge gap with the government seems to be one of the primary factors contributing to a fall in public confidence in the government. By closing the information gap between the public and the government, boosting information from the government to the public may assist improve public views, which can impact trust expectations (Welch & Wong, 2001).

#### **IV. Conclusion**

Because of the presence of e-government, government services are made more transparent and accountable, and the complexity of a bureaucracy is reduced. Therefore, the e-government system is an absolute necessity for the government in this age of disruption brought on by the fourth wave of the industrial revolution. Because if e-government can be implemented consistently, there will be improvements in the public service process that will go in a more positive way, and it may open up economic prospects between the government and stakeholders. The advantages of the electronic government system may be broken down into three categories: the social economy, the government, and the government dimension. E-government, in the meantime, offers a number of advantages from the point of view of public policy, including the reduction of costs, the promotion of economic development, the enhancement of transparency, the enhancement of services for the community, and the participation in the empowerment of the community. On the other hand, the amount of development work being done on Indonesia's e-government system has just began to expand. However, in terms of quality, it is still inadequate because the implementation of e-government has not been evenly distributed in all regions and it still only functions as a provider of static information. This is due to the fact that e-government is still only functioning as a provider of static information. In order to improve the development of e-government in Indonesia, both in terms of quantity and quality, it is necessary for the government to commit to improving e-government

development, particularly in terms of infrastructure, human resources, applications, regulations, and socialization within the government as well as to the public. This is necessary in order to achieve the goals of improving both the quantity and the quality of e-government development.

### References

- [1] Alghamdi, I. A., Goodwin, R., & Rampersad, G. (2011). E-government readiness assessment for government organizations in developing countries. *Computer and Information Science*, 4(3), 3.
- [2] Al-Omari, A., & Al-Omari, H. (2006). E-government readiness assessment model. *Journal of Computer Science*, 2(11), 841-845.
- [3] Arikunto, S. (2010). *Penelitian Kualitatif*. Jakarta: Bumi Aksara.
- [4] Athahara, H. (2018). Inovasi pelayanan publik berbasis e-government: studi kasus aplikasi Ogan Lopian Dinas Komunikasi dan Informatika di Kabupaten Purwakarta. *Jurnal Politikom Indonesiana*, 3(1), 66-66.
- [5] Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2006). New public management is dead—long live digital-era governance. *Journal of public administration research and theory*, 16(3), 467-494.
- [6] Evans, D., & Yen, D. C. (2006). E-Government: Evolving relationship of citizens and government, domestic and international development. *Government information quarterly*, 23(2), 207-235.
- [7] Faedlulloh, D., Maarif, S., Meutia, I. F., & Yulianti, D. (2020). Birokrasi dan Revolusi Industri 4.0: Mencegah Smart ASN menjadi Mitos dalam Agenda Reformasi Birokrasi Indonesia. *Jurnal Borneo Administrator*, 16(3), 313-336.
- [8] Gunawan, I. (2013). *Metode penelitian kualitatif*. Jakarta: Bumi Aksara, 143, 32-49.
- [9] Guo, X., & Lu, J. (2005). Effectiveness of e-government online services in Australia. In *Electronic government strategies and implementation* (pp. 214-241). IGI Global.
- [10] Habibullah, A. (2010). Kajian Pemanfaatan Dan Pengembangan E-Government. *Jurnal Privat Law*, 23(3), 194-195.
- [11] Herizal, H., Mukhrijal, M., & Wance, M. (2020). Pendekatan akuntabilitas pelayanan publik dalam mengikuti perubahan paradigma baru administrasi publik. *Journal of Governance and Social Policy*, 1(1), 24-34.
- [12] Indrajit, R. E. (2006). *Electronic Government: Konsep Pelayanan Publik Berbasis Internet dan Teknologi Informasi*. Yogyakarta: Penerbit Andi.
- [13] Irawan, B. (2017). E-Government Sebagai Bentuk Baru Dalam Pelayanan Publik: Sebuah Tinjauan Teoritik. *Jurnal Paradigma (JP)*, 4(3), 200-209.
- [14] Kurniasih, D. (2013). Interaksi Sosial dalam Implementasi e-Government. *JIPSI-Jurnal Ilmu Politik Dan Komunikasi UNIKOM*, 2.
- [15] Law Number 25 of 2009 concerning Public Services.
- [16] Lee, A., & Levy, Y. (2014). The effect of information quality on trust in e-government systems' transformation. *Transforming Government: People, Process and Policy*.
- [17] Moon, M. J. (2002). The evolution of e-government among municipalities: rhetoric or reality?. *Public administration review*, 62(4), 424-433.
- [18] Nugroho, T. W. A. (2017). Analisis E-Government Terhadap Pelayanan Publik Di Kementerian Hukum Dan Ham (Analysis Of E-Government To Public Services In The Ministry Of Law And Human Rights). *Jurnal Ilmiah Kebijakan Hukum*, 10(3), 279-296.
- [19] Nur, E. (2014). Penerapan e-government publik pada setiap skpd berbasis pelayanan di kota palu. *Jurnal Penelitian Komunikasi dan Opini Publik*, 18(3).
- [20] Nurita, R. F. (2014). Optimalisasi Layanan Transaksi Electronic Government dalam Upaya Mewujudkan Pelayanan Publik yang Baik pada Bidang Perizinan di Kota Malang (Doctoral dissertation, Brawijaya University).
- [21] Presidential Instruction No. 3 of 2003 concerning National Policies and Strategies for developing e-government in all levels of government as a whole.
- [22] Rahardjo, B. (2001). *Membangun E-Government*. Bandung: Institut Teknologi Bandung Press.
- [23] Reza, I. F. (2020). Strategi Penerapan Pelayanan Publik Berbasis E-Government Di Indonesia Pada Era Revolusi Industri 4.0. *Wacana Publik*, 14(01), 7-12.
- [24] Rivai, F. H. (2019). Membangun Budaya Birokrasi dalam Menghadapi Revolusi Industri 4.0. *Jurnal Transformasi Administrasi*, 9(2), 128-138.

- [25] Setiawan, I. (2019). Pengembangan Teknologi Informasi dan Komunikasi Dalam Menghadapi Era Revolusi Industri 4.0 Di Kota Pontianak. *Jurnal Teknologi dan Komunikasi Pemerintahan*, 1(1), 1-14.
- [26] Silalahi, M., Napitupulu, D., & Patria, G. (2015). Kajian Konsep dan Kondisi E-Government di Indonesia. *Jupiter*, 1(1).
- [27] Sosiawan, E. A. (2015, June). Tantangan dan Hambatan dalam implementasi E-Government di Indonesia. In *Seminar Nasional Informatika (SEMNASIF)* (Vol. 1, No. 5).
- [28] Sufianti, E. (2007). Aplikasi e-Government dalam Meningkatkan Kualitas Pelayanan Publik pada Beberapa Pemerintah Daerah Kota/Kabupaten di Indonesia. *Jurnal Ilmu Administrasi: Media Pengembangan Ilmu Dan Praktek Administrasi*, 4(4), 03.
- [29] Tini, D. L. R. (2019). Inovasi Pelayanan Publik Berbasis IT Dalam Menghadapi Era Revolusi Industri 4.0 di Kabupaten Sumenep. *Prosiding*, 231-238.
- [30] Welch, E. W., & Wong, W. (2001). Global information technology pressure and government accountability: the mediating effect of domestic context on website openness. *Journal of Public Administration Research and Theory*, 11(4), 509-538.
- [31] Wijaya, S. W., & Surendro, K. (2006). Kajian Teoritis: Model E-Government Readiness Pemerintah Kabupaten/Kotamadya Dan Keberhasilan E-Government. In *Seminar Nasional Aplikasi Teknologi Informasi (SNATI)*.
- [32] Wirawan, V. (2020). Penerapan E-Government dalam Menyongsong Era Revolusi Industri 4.0 Kontemporer di Indonesia. *Jurnal Penegakan Hukum Dan Keadilan*, 1(1), 1-16.
- [33] World Bank. (2011). *Electronic Government Procurement: Mexico's Compranet Pilot Project*. Washington: World Bank.
- [34] Yunita, N. P., & Aprianto, R. D. (2018). Kondisi Terkini Perkembangan Pelaksanaan E-Government di Indonesia: Analisis Website. In *Seminar Nasional Teknologi Informasi dan Komunikasi* (pp. 329-336).