

Digital Government in Handling Corona Virus Disease 2019 (COVID-19) in Pekanbaru City

Pemerintahan Digital dalam Penanganan Corona Virus Disease 2019 (COVID-19) di Kota Pekanbaru

Raja Aulia Rizki¹, Andriyus²

^{1,2}Department of Governmental Studies, Faculty of Social and Political Sciences, Universitas Islam Riau,
Indonesia

*Email Korespondensi: rajaauliarizky@gmail.com

Diterima: 5 Mei 2023

Direvisi: 24 November 2023

Disetujui: 8 Desember 2023

DOI: [10.35967/njip.v22i1.457](https://doi.org/10.35967/njip.v22i1.457)

Abstract: *The global crisis of the COVID-19 pandemic has completely changed all aspects of people's lives. Digital is the new normal and the pandemic has emphasized the link between digitalization and development. Adaptive risk management can also be seen from the use of technology and information by the government through the relevant Ministries launched various applications that aims to make the handling of COVID-19 more effective, especially in health services and tracking and tracing as well as providing information. This paper is based on the research results using qualitative methods with exploratory analysis. There are three approaches in looking at digital governance strategy, namely the information systems strategy approach through a master plan for the field of information systems, alignment of information system functions and their application to achieve the organization's mission and development of a shared vision of what the organization can achieve. Pekanbaru City Government in 2020 follows up on policies related to digital-based handling of COVID-19 governance by issuing several applications and handling information systems COVID 19 is like PPC 19, Waspada COVID 19 Data Rumah and Vaksin COVID 19.*

Keywords: *Transformation Government, Digital Government, Handling COVID 19, COVID 19*

Abstrak: Krisis global akibat pandemi COVID-19 telah mengubah total seluruh aspek kehidupan masyarakat. Digital adalah hal yang normal dan pandemi ini telah menekankan hubungan antara digitalisasi dan pembangunan. Pengelolaan risiko adaptif juga terlihat dari pemanfaatan teknologi dan informasi yang dilakukan pemerintah melalui Kementerian terkait meluncurkan berbagai aplikasi yang bertujuan untuk mengefektifkan penanganan COVID-19 khususnya pada pelayanan kesehatan dan tracking serta tracing serta pemberian informasi. Tulisan ini disusun berdasarkan hasil penelitian dengan menggunakan metode kualitatif dengan analisis eksploratif. Terdapat tiga pendekatan dalam melihat strategi tata kelola digital, yaitu pendekatan strategi sistem informasi melalui rencana induk bidang sistem informasi, penyesuaian fungsi sistem informasi dan penerapannya untuk mencapai misi organisasi, dan pengembangan visi bersama tentang apa yang harus dilakukan organisasi dapat mencapainya. Pemerintah Kota Pekanbaru pada tahun 2020 menindaklanjuti kebijakan terkait tata kelola penanganan COVID-19 berbasis digital dengan menerbitkan beberapa aplikasi dan sistem informasi penanganan COVID 19 seperti PPC 19, Waspada COVID 19, Data Rumah dan Vaksin COVID 19.

Kata Kunci: *Transformasi Pemerintahan, Pemerintahan Digital, Penanganan COVID 19, COVID 19*

INTRODUCTION

Every element of peoples' lives has been drastically changed by the COVID-19 pandemic. The epidemic has highlighted the connection between digitalization and progress, and digital is quickly becoming the new normal. It has made it possible for the globe to undergo a degree of digital transformation quickly that was previously predicted to take years. The

governments have also contributed. Governments may now effectively communicate current and accurate information to the public, local authorities, and employees about their health thanks to digital technology. They can also collaborate with other parties, including provider platforms, to combat misinformation and handle issues related to data privacy and cyber security. Apps for working and studying from home, as well as tracking and monitoring tools, are being rapidly deployed in several nations. We have experienced new tools and processes, such as COVID-19 dedicated information portals, hackathons, electronic services for the provision of medical goods, virtual medical consultations, and self-diagnosis applications, among others (Nations, 2021).

Several strategic measures were adopted, beginning with the Minister of Health's decision to implement Large-Scale Social Restrictions (PSBB), which the Regional Government could execute with the Minister's consent. Next came Healthy Living Behavior, which places an emphasis on actions that promote COVID-19 prevention by putting health protocol activities into place. previously established. One consistent theme is that, from the time the PSBB was implemented until the era of new life behaviors, it remained necessary to evaluate the pandemic risk and comprehend the primary areas of intervention for the response and management of COVID-19 as a database that not only served as an early detection mechanism but also had the potential to impact the rise in in public awareness and input for decision making. decisions (Chatterjee et al., 2020). This pandemic is a difficult time in making decisions that have a large impact and must be done quickly. Adaptive risk governance is how to overcome complexity, uncertainty, and ambiguity by emphasizing collaborative action (Djalante et al., 2020).

In times of crisis, it is highly important that the public get accurate, helpful, and current information from the government. The government began disseminating information on national websites, smartphone applications, and social media channels during the COVID-19 pandemic. The COVID-19 Pandemic has increased the critical need for accurate, helpful, and current information provided by the government. A few of the chosen information-sharing projects fall into one of three categories: monitoring, information sharing, and creating a dedicated COVID-19 portal. The Ministry of Health actively participates in the execution of this section in the majority of situations, working with non-governmental organizations like the corporate sector and civil society, as well as other government agencies like the ministries in charge of technology and innovation (Nations, 2021).

Adaptive risk management can also be seen from the use of technology and information by the government through the relevant Ministries launching various applications that aim to streamline the handling of COVID 19, especially in health services and tracking and tracing as well as providing information including:

- a. PeduliLindungi
- b. 10 Rumah Aman
- c. Bersatu Lawan COVID-19
- d. M-Health
- e. Aplikasi Telemedicine
- f. Silacak

One of the areas that is the locus of writing this article is Pekanbaru City, which is the capital city of Riau Province and is recorded as the area with the highest spread and positive cases of COVID 19 compared to other regions in Riau Province. Based on Figure 1 below, it can be seen that Pekanbaru City, which was confirmed until September 11, 2021, had 50,775 cases and showed a significant increasing trend from the beginning of positive confirmed cases in March 2020 to September 2021. This can be seen in Figure 1.

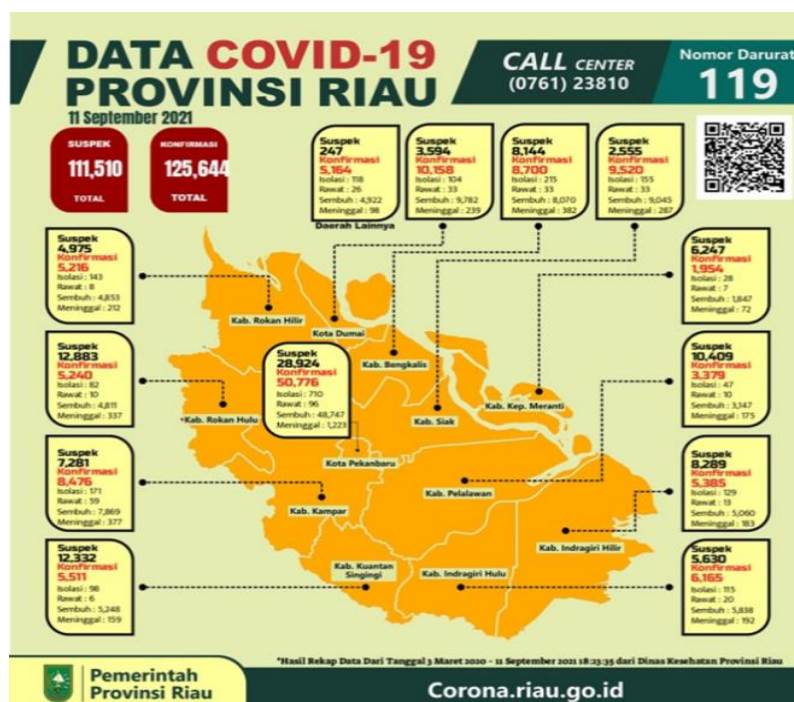


Figure 1. Data on Covid 19 in Riau Province as of September 11, 2021
 Source: <https://corona.riau.go.id/> Accessed on 11/09/21

Furthermore, according to Minister of Home Affairs Instruction Number 69 of 2021 concerning the Enforcement of Restrictions on Community Activities Level 3, Level 2, and Level 1 and optimizing the 2019 Corona Virus Disease Handling Post at the Village and Sub-District Levels to Control the Spread of Corona Virus Disease 2019 in the Sumatra, Nusa Tenggara, Kalimantan, Sulawesi, Maluku, and Papua regions besides Kampar and Bengkalis Regencies, Pekanbaru City is also one of the Riau Province's regions that is included in the criteria for implementing PPKM level 2. The selection of this location was also based on the lack of research related to the use of government technology and information or what is commonly called digital government in handling COVID 19 in the regions. The Pekanbaru City Government in 2020 followed up on policies related to handling COVID 19 based on digital governance by issuing several applications and information systems for handling COVID 19, such as:

- a. PPC 19
- b. CIKPUAN
- c. ISOMAN
- d. Waspada COVID 19
- e. Data Rumah
- f. Vaksin COVID 19

In addition to the national digital strategy, the government has also recognized the need to develop a digital government. In contrast to the national digital strategy which discusses the implementation of information technology for the benefit of society, the digital government strategy perspective includes the internal use of information technology aimed at creating more efficient government and better delivery of government services. Digital governance strategy is closely related to corporate architecture, information systems, and information technology in government, either within the scope of an individual institution or at the national level (Sandoval Almazan et al., 2017).

Digital government in the public sector can be said to be the use of technology and information in the administration of government in the provision of public services to the

community. The implementation of DG will not succeed if it does not use strategies in its optimization. There are 2 (two) dimensions of the application of information technology in the public sector, namely the first dimension includes a digital society strategy, also called a national digital strategy, which refers to a strategy aimed at utilizing information technology for society as a whole. The second is a digital government strategy, sometimes also referred to as an e-government strategy or enterprise e-government strategy, which refers to the application of information technology in government with the aim of advancing government functions and service delivery (Puron-Cid et al., 2021; Sandoval Almazan et al., 2017).

The dimensions of the digital society strategy or national digital strategy will be successful if it fulfills the following principles (Sandoval Almazan et al., 2017):

- a. Creating a strategy for a digital society involves an ongoing process that requires ongoing consultation with citizens, private actors, and governments to define and redefine the meaning of public value, the key being the processes necessary to create the desired value and benefits.
- b. The development and implementation of a national digital strategy requires an ongoing process of partnerships and coalitions to influence key stakeholders and promote the achievement of strategic objectives.
- c. Continuous assessment of the balance of power increases the likelihood of taking advantage of unplanned opportunities and maintaining balance with planned ones.
- d. Be aware of resources, capabilities and how to build alliances that can help and take advantage of both planned and unplanned opportunities.
- e. Implementation of a national digital strategy requires support from the highest levels of government and the existence of a legitimate institutional and legal framework.
- f. The sustainability of certain government strategies can be encouraged through the creation of an institutional framework that provides continuity and legitimacy for these activities throughout the electoral cycle. One way is to institute high-level management positions responsible for national digital strategies that are not subject to electoral changes.

METHODS

Methodology has standard steps that are different from each other. The diversity of grouping types of research is based on the objectives to be achieved (Mudjiyanto, 2018). Classifying different research types helps researchers place their findings in relation to the degree of accuracy with which the research demonstrates the scientific truth. This kind of study gauges the value of research for developing scientific concepts, making decisions, assessing policies, or tracking the advancement of a program. The exploration, description, and explanation of phenomena are the same objectives of research as they are of all scientific endeavors. The purpose of exploratory research is to determine the nature of a phenomenon or event in order to gain new insights and expand on existing knowledge. It can also be used to formulate problems in greater detail or to develop hypotheses rather than test it. Exploratory research is a research approach that aims to find information about a topic/problem that is not fully understood by a researcher. Explanatory research is research that tests hypotheses by paying attention to the causes and effects and the relationship between the variables in the study (Pirmanto, 2016). The method used in this study is a qualitative method with an exploratory type. Qualitative methods are research procedures that produce descriptive data in the form of written or spoken words from people and observable behavior (Moleong, 2007). The research model utilized is an exploratory type and literature study, which uses the literature in the form of books, articles, journals, mass media coverage, statutory regulations, and other sources to carefully and thoroughly explore and create a description or exposure about specific social phenomena without intervention, hypotheses, or measurements.

RESULT AND DISCUSSION

The stages of digital government to map evolutionary development are viewed from 2 (two) dimensions, namely: First, Refers to the degree of technological and organizational complexity in the delivery service mode. Second, the level of integration involved between the vertical (local, state, regional) and horizontal layers (lateral relationships between levels) of government. The explanation of the following stages:

1. Cataloging: use of ICT focused on ensuring the existence of government online (focused on establishing an online scene for the government). At this stage, what the government does is to provide public information online – usually through the website- and therefore the activity looks like a “catalog” creation.
2. Transaction: where on at this stage the use of ICT has made it possible to make transactions between the government and the public through electronic channels. This transaction can be in the form of payment of fines, billing, or other identity renewal mechanisms and so on. The point is in the interactions that involve transactions (in the form of information, money, and others) between government and society.
3. Vertical integration: At this stage, vertical integration is a necessity for synchronizing transactions that occur.
4. Horizontal integration: This level integrates coordination mechanisms between agencies, with assumption vertical integration has been applied, the data are the same will be owned by the municipal, provincial and local governments national. Owned data will be able to integrate with other agencies.so now there is more data overlap and multiple versions of data in horizontal integration scheme.

The Pekanbaru City Government, which is the focus of the research, has followed up on policies related to handling COVID 19 by forming a task force to accelerate the handling of COVID 19 in Pekanbaru and implementing a regional quarantine through Pekanbaru Mayor Decree No. 325 of 2020 concerning the Enforcement of Large-Scale Social Restrictions (PSBB) in Handling COVID 19 in Pekanbaru City, this determination was carried out for 14 days and then extended to PSBB phase 3. In addition, the Pekanbaru City government has also issued guidelines for implementing PSBB through Pekanbaru Mayor Regulation No.74 of 2020 concerning Guidelines for the Implementation of PSBB in Handling COVID 19 in Pekanbaru City and other regulations and circulars related to handling COVID 19.

The prevention and control of COVID-19 in Pekanbaru City, when associated with adaptive planning, cannot be separated from the central government's policy in determining emergency status in the regions, especially regarding positive cases of COVID or positive ratings for its spread. The policies issued are of course aimed at suppressing the spread of COVID-19 and tightening restrictions on community activities. There have been several adaptive policies issued in Pekanbaru City since the implementation of PHB after the PSBB to the Emergency PPKM, this can be seen in [Table 1 \(Amin et al., 2022\)](#).

Table 1. Adaptive Policies in the Context of Prevention and Control of COVID-19 in Pekanbaru City

No	COVID-19 Handling Policy	Description
1.	Large-Scale Restrictions (PSBB) I-II	This policy was taken based on data showing that there has been a significant and rapid increase and spread of COVID-19 cases and is accompanied by local transmission events in the Pekanbaru City area. The mechanism for submitting PSBB is proposed by the Mayor to the Minister of Health which can be extended.
2.	New Life Behavior	New life behaviors are behaviors that support the prevention of COVID-19 with established health protocol activities. The regulated scope is guidelines for healthy living behavior, monitoring and evaluation as well as administrative sanctions. If there is an increase in the spread of COVID-19, the PSBB policy can be carried out again

No	COVID-19 Handling Policy	Description
		based on the recommendations of the task force team and determined by the mayor's decision.
3.	Enforcement of Micro Community Activity Restrictions (PPKM)	The Micro PPKM policy is carried out in the form of strict supervisor of health protocols in activities carried out by the community at the regional level which includes kelurahan, RW and RT. The Pekanbaru City COVID-19 Task Force established and optimized the COVID-19 handling post at the sub-district, village, RW and RT levels. The zoning category for regional control is also the basis for the implementation of Micro PPKM up to the RT level.
4.	Emergency PPKM (Level 4)	The PPKM Level 4 policy is a restriction policy carried out to reduce the transmission of COVID-19. Level 4 is assessed based on the factor of transmission rate and response capacity in the area according to WHO recommendations. Levels 3 and 4 are areas that have high transmission, but the regional response capacity is classified as medium and low

Source: *Processed Data 2021* (Amin et al., 2022)

Digital is becoming the new normal and the pandemic has put forward the link between digitalization and development. It has allowed the world to experience a level of digital transformation that was previously expected to take years in a short period of time. Governments have also done their part. Digital technology has enabled governments to provide clear and up-to-date information to the public, local authorities, and workers' health, while working with stakeholders such as provider platforms to reduce the spread of misinformation, and to address cyber security and data privacy concerns. Many countries are rapidly deploying tracking and tracking apps, and apps for working and studying from home. Experienced new tools and processes, such as COVID-19 dedicated information portals, hackathons, electronic services for the provision of medical goods, virtual medical consultations, and self-diagnosis applications, among others. In handling COVID 19 in Pekanbaru City, the City Government cooperates with various parties, especially in the development of information technology. There are two fields that have tasks related to providing data and information related to COVID 19. The field of information and communication consisting of elements of local government, universities, mass media and the community collaborate in collecting and data management (data base), operational development of information systems, communications and electronics, development of public and media communications strategies monitoring. The leading sector in the field of information and communication is the Head of the Service Pekanbaru City Communication and Information, especially in the pusdalops and public relations sections. As for the task of the pusdalops section, namely the collection and database management, development and operation of information, communication and electronic systems as well as reporting. While the Public Relations section oversees public communication, agenda setting, communication strategy, media monitoring and interpreter talk.

In addition, the involvement of non-government actors can be seen from the cooperation Pekanbaru City Government with Caltex Riau Polytechnic (PCR) in terms of publications information and data related to the handling of COVID 19 in Pekanbaru City such as data and distribution maps, infographics, referral hospital info, treatment flow and others through the link <https://ppc-19.pekanbaru.go.id/> and -based application development android "CIK Puan" which has the following features: Check for COVID 19, Early Warning Destination, COVID 19 Education, Information on Alert Posyandu and Hospitals and others. Following view of the official website <https://ppc-19.pekanbaru.go.id/> managed by PCR.

The cooperation between the city government and PCR is contained in the Memorandum of Understanding (MOU) or Cooperation Agreement in accordance with the scope of handling COVID 19, which can be seen in [table 2](#).

Table 2. MOU/ Cooperation Agreement related to the creation and development of information systems/applications in handling COVID 19 in Pekanbaru City in 2020

No.	MOU/ Cooperation Agreement	Scope of cooperation
1.	MOU between the Pekanbaru City Government and PCR regarding Capacity Building for Government Administration in Pekanbaru City through the Tridarma of Higher Education No. 100/Cooperation/1/2020 and No. 0008/DIR/PCR/2020	The scope of cooperation is to help each other in the implementation of the main tasks and functions to realize the Pekanbaru Smart City Madani including: Socio-cultural, socio-economic, spatial and environmental, facilities and infrastructure.
2.	Cooperation Agreement between The Pekanbaru City Research and Development Agency and Caltex Riau Polytechnic regarding the development of the PPC system, Self-Checkup, and PSBB monitoring system No. 074/BPP.Sekre1/163/2020 and No.0018/DIR/PCR/2020	The scope of cooperation is in the form of support to the government in managing, developing COVID-19 case monitoring data and monitoring the PSBB data collection system in real time
3.	Cooperation Agreement between The Pekanbaru City Healthy Agency and Caltex Riau Polytechnic regarding the development of the PPC system, Self-Checkup, and PSBB monitoring system No. 0019/DIR/PCR/2020	The scope of cooperation is in the form of support to the government in managing, developing COVID-19 case monitoring data and monitoring the PSBB data collection system in real time
4.	Cooperation Agreement between The Pekanbaru City Communication, Informatics, Statistics, and Encoding Agency and Caltex Riau Polytechnic regarding the development of the PPC system, Self-Checkup, and PSBB monitoring system No.0020/DIR/PCR/2020	The scope of cooperation is in the form of support to the government in managing, developing COVID-19 case monitoring data and monitoring the PSBB data collection system in real time

Source: Processed Data 2021

Some of the information systems or applications developed can be seen in [Table 2](#).

Table 2. Information System/Application in handling COVID 19 in Pekanbaru City

Tahun	System Name	Initiators	Description
2020-2022	PPC 19 (CIKPUAN)	Healthy Agency, Communication, Informatics, Statistics, and Encoding Agency, PCR	Caltex Riau Polytechnic (PCR) collaborated with the Pekanbaru City Government to develop an application to monitor the health and movement of residents during the COVID-19 pandemic. This application is called CikPuan (Check, Information, trace & traKing, Covid-19 Pekanbaru). There are 3 applications developed in this study and integrated with each other including the Cik Puan Application for residents, the Cik Puan Application for the Covid-19 Task Force Officer and the Cik Puan Monitoring Dashboard.
2020-2021	ISOMAN	Healthy Agency, Communication, Informatics, Statistics, and Encoding Agency	The development of an application for handling the COVID 19 pandemic under the name ISOMAN was developed by the Pekanbaru City Statistics and Encoding Communications Service with the Pekanbaru City Health Office. office / home.
2020	Waspada COVID 19 (Unpublished)	Healthy Agency, Communication, Informatics, Statistics, and Encoding Agency	Monitoring COVID 19 data via geotagging (The process of adding position information to GPS data)
2021	Data Rumah	Government Administration, Kecamatan, Communication, Informatics, Statistics, and Encoding Agency	Provide information on vaccines and COVID 19 case in every house that is recorded by RT/RW officers
2021	Vaksin COVID 19	Healthy Agency, Communication,	Provide information related to the distribution of vaccinations to all health facilities in Pekanbaru City

Tahun	System Name	Initiators	Description
		Informatics, Statistics, and Encoding Agency	

Source: Processed Data 2022

Digital government is influenced by a combination of factors, including a sense of urgency, the need for change, and the creation of a collaborative environment, suggesting that more effort is needed to include public managers in the current debate on DG. Organizational barriers and lack of support are inhibiting factors. Finally and counter-intuitively, resistance to change was not found to impede transformation (Gil-Garcia & Flores-Zúñiga, 2020; Sandoval Almazan et al., 2017; Shava & Vyas-Doorgapersad, 2022; Tangi et al., 2021). In addition to the national digital strategy, the government has also recognized the need to develop a digital government. In contrast to the national digital strategy which discusses the implementation of information technology for the benefit of society, the digital government strategy perspective includes the internal use of information technology aimed at creating more efficient government and better delivery of government services. Digital governance strategy is closely related to corporate architecture, information systems, and information technology in government, either within the scope of an individual institution or at the national level (Amin et al., 2021; Puron-Cid et al., 2021; Sandoval Almazan et al., 2017).

The strategy of a digital government company has several principles that must be followed as well as a digital society strategy. The principles are as follows (Aasback & Rokkum, 2021; kontogeorgis & Varotsis, 2021; Kuziemski & Misuraca, 2020; Wahanisa et al., 2021):

- a. Coordination of the digital government strategy requires the establishment of a governance body, which includes representatives from information technology and program managers from various government agencies.
- b. The government should designate a key information officer position in charge of coordinating digital governance strategies, where the CIO Coordinator leads the development of enterprise architecture and information technology for government agencies in collaboration with IT managers of all government agencies.
- c. One of the main tasks of CIOs and digital governance steering committees is the development of policies, procedures, and standards that facilitate the development of effective (integrated) infrastructure and technology technologies.
- d. It is possible to reduce inefficiencies and increase the percentage of resources allocated to innovation projects in government through the development and adoption of common standards and processes as well as through careful implementation of a comprehensive digital government strategy.
- e. There must be a balance between maintaining current systems and budgets for innovation and exploration to support the development of an enterprise infrastructure.
- f. The creation of an investment portfolio in the public sector should be based on the definition of public value and the exploration of various forms of value creation for each stakeholder.
- g. A sound investment portfolio in digital governance should include investments in infrastructure, systems to support government operations, and systems to support public policies and programs.
- h. Program managers and experts should actively participate in IT governance as well as on other committees to assess business cases and oversee project portfolio development and implementation.

CONCLUSION

Each element of peoples' lives has been completely transformed by the COVID-19 pandemic. The pandemic has highlighted the connection between digitalization and development, and digital is quickly becoming the new normal. It has made it possible for the world to undergo a degree of digital transformation quickly that was previously predicted to take years. Large-Scale Social Restrictions (PSBB) were the first of several strategic policies to be implemented. Healthy Living Behavior, which emphasizes supportive behavior toward the prevention of COVID 19 with established health protocol activities, is the second of these policies. There is a consistent pattern in that from the time the PSBB was implemented until the era of new life behaviors, it was still necessary to evaluate the pandemic risk and comprehend the primary areas of intervention for the response and management of COVID-19. This is because the database, in addition to serving as an early detection mechanism, can also impact the rise in public awareness and participation in decision-making. choice. During this pandemic, decisions that need to be made quickly and with significant consequences are challenging to make. Adaptive risk governance is a collaborative approach to managing ambiguity, uncertainty, and complexity. Adaptive risk management can also be seen from the use of technology and information by the government through the relevant Ministries launching various applications that aim to streamline the handling of COVID 19, especially in health services and tracking and tracing as well as providing information.

Pekanbaru City is one of the areas in the Riau Province that is included in the criteria for implementing PPKM level 2 based on the Instruction of the Minister of Home Affairs Number 69 of 2021 concerning the Enforcement of Restrictions on Community Activities Level 3, Level 2, and Level 1 and Optimizing the 2019 Corona Virus Disease Handling Command Post at Level 1 Villages and Sub-Districts to Control the Spread of Corona Virus Disease 2019 in Sumatra, Nusa Tenggara, Kalimantan, Sulawesi, Maluku and Papua other than Kampar and Bengkalis Regencies. The selection of this location was also based on the lack of research related to the use of government technology and information or what is commonly called digital government in handling COVID 19 in the regions. The Pekanbaru City Government in 2020 followed up on policies related to handling COVID 19 based on digital governance by issuing several applications and information systems for handling COVID 19, such as PPC 19 (CIKPUAN), Waspada COVID 19, ISOMAN, Datarumah, dan Vaksin COVID 19.

REFERENCES

- Aasback, A. W., & Rokkum, N. H. A. (2021). Domesticating Technology in Pandemic Social Work. *Journal of Comparative Social Work*, 16(2), 172–196. <https://doi.org/10.31265/JCSW.V16I2.387>
- Amin, R. M., Febrina, R., & Wicaksono, B. (2021). Handling COVID-19 from a Collaborative Governance Perspective in Pekanbaru City. *Jurnal Bina Praja*, 13, 1–13. <https://doi.org/10.21787/jbp.13.2021.1-13>
- Amin, R. M., Febrina, R., & Wicaksono, B. (2022). Model Proses Penanganan COVID-19 dalam Perspektif Multi-Stakeholder Partnership. *Jurnal Ilmu Sosial Dan Humaniora*, 11(1), 111–125. <https://doi.org/10.23887/jish.v11i1.39418>
- Falk, S., Römmele, A., & Silverman, M. (2016). Digital Government, Leveraging Innovation to Improve Public Sector Performance and Outcomes for Citizens. In *Digital Government: Leveraging Innovation to Improve Public Sector Performance and Outcomes for Citizens*. <https://doi.org/10.1007/978-3-319-38795-6>
- Gil-Garcia, J. R., & Flores-Zúñiga, M. (2020). Towards a comprehensive understanding of digital government success: Integrating implementation and adoption factors. *Government Information Quarterly*, 37(4), 101518.

- <https://doi.org/10.1016/j.giq.2020.101518>
- Kontogeorgis, G., & Varotsis, N. (2021). Reinstating greek e-governance: A framework for e-government benchmarking, improvement and government policies. *Public Administration Issues*, 6(Ii), 103–127. <https://doi.org/10.17323/1999-5431-2021-0-6-103-127>
- Kuziemski, M., & Misuraca, G. (2020). AI governance in the public sector: Three tales from the frontiers of automated decision-making in democratic settings. *Telecommunications Policy*, 44(6). <https://doi.org/10.1016/j.telpol.2020.101976>
- Moleong, L. J. (2007). *Metodologi Penelitian Kualitatif*. PT Remaja Rosdakarya Offset.
- Mudjiyanto, B. (2018). Tipe Penelitian Eksploratif Komunikasi. *Jurnal Studi Komunikasi Dan Media*, 22(1), 65. <https://doi.org/10.31445/jskm.2018.220105>
- Nations, U. (2021). Compendium of Digital Government Initiatives in Response to the COVID-19 Pandemic: 2020. In *Compendium of Digital Government Initiatives in Response to the COVID-19 Pandemic: 2020*. <https://doi.org/10.18356/9789210053709>
- Pirmanto, D. (2016). Jenis Penelitian Menurut Kedalaman analisis data. *Journal of the American Chemical Society*, 77(21), 13. <http://staffnew.uny.ac.id/upload/132232818/pendidikan/Analisis+Kuantitatif.pdf>
- Puron-Cid, G., Luna, D. E., Picazo-Vela, S., Gil-Garcia, J. R., Sandoval-Almazan, R., & Luna-Reyes, L. F. (2021). Improving the assessment of digital services in government websites: Evidence from the Mexican State government portals ranking. *Government Information Quarterly*, September 2019. <https://doi.org/10.1016/j.giq.2021.101589>
- Sandoval Almazan, R., Luna-Reyes, L., Luna, D., Gil-Garcia, J. R., Puron-Cid, G., & Picazo-Vela, S. (2017). *Building Digital Government Strategies*. <https://doi.org/10.1007/978-3-319-60348-3>
- Shava, E., & Vyas-Doorgapersad, S. (2022). Fostering digital innovations to accelerate service delivery in South African Local Government. *International Journal of Research in Business and Social Science* (2147- 4478), 11(2), 83–91. <https://doi.org/10.20525/ijrbs.v11i2.1610>
- Tangi, L., Janssen, M., Benedetti, M., & Noci, G. (2021). Digital government transformation: A structural equation modelling analysis of driving and impeding factors. *International Journal of Information Management*, 60(April), 102356. <https://doi.org/10.1016/j.ijinfomgt.2021.102356>
- Wahanisa, R., Mukminto, E., Damayanti, R., & Muhtada, D. (2021). The Utilization of E-Government Public Service for Improving Public Capability and Accessibility During the Covid-19 Pandemic. *Proceedings of the International Conference on Environmental and Energy Policy (ICEEP 2021)*, 583(Iceep), 184–187. <https://doi.org/10.2991/assehr.k.211014.039>