# Public service transformation trough digital-based services during covid-19 pandemic in Riau Province, Indonesia

**Panca Setyo Prihatin[1*)], Pahmi Amri[2], Agung Wicaksono[3]**

[1,2] *Department of Government Studies, Faculty of Social and Political Sciences, Universitas Islam Riau, Indonesia*
[3] *School of International Relations and Political Science, Corvinus University of Budapest, Hungary*

## Abstract

*The purpose of this paper is to show how the Riau Provincial Government might transform public services based on digital services in the direction of good governance. This paper then uses a qualitative analysis method with Nvivo 12 Plus as an analytical tool to visualize data from online media sites. The findings of this study indicate that during the Covid-19 pandemic, the transformation of digital service-based public services in Riau Province can be seen from three aspects, namely: First, on the transparency aspect, the Riau Provincial Government has implemented digital services so that they can be more easily accessed. Second, in terms of accountability, every public service provider already has a strong understanding of how to implement digital services. However, the implementation of digital services still faces challenges and requires improving aspects of internet network quality in several locations in remote and underdeveloped areas. Third, in terms of effectiveness and efficiency, the Riau Provincial Government has received various awards for public service innovations and has launched the Mata Bansos application which is intended to help communities affected by Covid-19. Therefore, this research contributes in the form of recommendations to continue to improve public services by utilizing existing digital service applications and further integrating public services that have not been integrated with digital-based services.*

*Keywords: public services, digital-based services, covid-19*

*) Correspondence Author
E-mail: panca.ip@soc.uir.ac.id

## Introduction

In 2019, the globe was stunned by the global epidemic known as Covid-19 (Mazzucato & Kattel, 2020). Covid-19 is a novel sort of sickness that humans have never encountered before (Brunese, Mercaldo, Reginelli, & Santone, 2020). This virus has a rapid transmission rate and contributes to increased fatality rates among patients with confirmed Covid-19 infection (Liu, Blet, Smyth, & Li, 2020; Rothan & Byrareddy, 2020). In addition, the dreaded Covid-19 virus eventually arrived in Indonesia in March of 2020 (Yuniti, Sasmita, Komara, Purba, & Pandawani, 2020). Then, the total number of positive cases of Covid-19 in Riau Province has reached 40,392 as of Thursday, April 21, 2021, according to the distribution map for the province of Riau that was exposed to Covid-19 throughout the year 2021. 36,063 recovered, 2,601 isolated themselves, 732 were hospitalized, and 996 passed away. This has consequently resulted in the rapid proliferation of Covid-19 in Riau Province (Kompas.com, 2021). A major threat to human life has emerged with the rise of the Covid-19 epidemic, which has affected all parts of daily life, including the healthcare industry (Efrat Shadmi et al., 2020), social

(Poudel & Subedi, 2020), politics (Kuzemko et al., 2020), the economy (Gautam & Hens, 2020), culture (Airhihenbuwa et al., 2020), and education (Dwivedi et al., 2020).

In general, effective governance has led to long-term growth (Kamal, M., & Batool, 2020). Despite this, the weakening of the principle of accountability and the lack of transparency that has resulted from a lack of decentralization and analysis in government agencies show that better governance is required (Al-sharafi, Dhande, & Muley, 2019). As a result, good governance must play a significant role in the formulation of policy decisions made by the government (Solechan, 2020). The goal of good governance in public services is to ensure that the people in a certain geographic area are happy and well-served (Moonti, 2019), And to create a community that masters the concepts, principles, procedures, and practices of good governance (Azelmad, Nfissi, & Sidi, 2018; Upasod, 2019). One of the most important aspects of good governance is ensuring that personnel is appropriately supervised (Agus Sunarmo et al., 2018). Accountability, involvement, consensus building, openness, efficiency and effectiveness, and responsiveness to the rule of law are all characteristics of good governance (Herasymiuk, Martselyak, Kirichenko, Zhmur, & Shmalenko, 2020). The efficiency and efficacy of resource management and public service administration can also be evaluated using good governance as a key indicator (Pomeranz & Stedman, 2020). With the government's leadership, civil society must adhere to the constitution's policies or instructions, while its citizens follow (Shimawua & Christopher, 2020). This suggests that improving the country's economy, politics, and society may be accomplished best through excellent governance (Lindgren, Madsen, Hofmann, & Melin, 2019).

Fundamentally, the quality of public services is not only determined by the government, but also by the community as the recipient of these services. Therefore, the measure of service quality is not only determined by the party providing (the government), but also by the party receiving it (the community) (Yulianto & Yahya, 2018). Then, the purpose of bureaucratic reform and government administration is to improve the quality of public services, encourage government organizations to work better, meet the orientation of public needs, and make the best use of development resources based on the public interest (Anugraha, Angriawan, & Mashud, 2020; Berlinda Ayu Adeti & Charis Christiani, 2022; Yasa et al., 2021). In addition, the existence of bureaucratic reform in the process has changed the appearance of the bureaucracy with a hierarchical structure that is seen as ineffective, inefficient, and even less responsive in a competitive environment to offer various public services (Indarti, 2021). Thus it can be seen that the existence of a government bureaucracy is based on and realized through public services (Marzuki, 2020). There is a change in the service paradigm that is more customer/society oriented, which must be used as a value attached to government officials and reflected in their attitudes and actions in providing services to the community. This is the ideal public service, and every public service provider must strive to achieve it because in the end, the government as a public service provider must focus on the happiness of the community as users of these services (Indrayani, 2020). Thus, the level of public satisfaction with public services is one of the main indicators in evaluating the ability of policies in a country. Therefore, it is important to realize community-oriented public services, where the government needs to adopt new creative and adaptive methods to respond to changes that occur (Baek & Kim, 2018).

Various literature has shown that the Covid-19 pandemic that has hit a number of countries has prompted a modification of the bureaucracy in public services, where

one of the bureaucratic changes that occur is in the organizational dimension and the dimensions of the new work system (Taufik & Warsono, 2020). As a result of Covid-19's presence, public agencies have faced additional challenges as they strive for good governance (Mazzucato & Kattel, 2020; Tirachini & Cats, 2020). Thus, good coordination and policy are needed by the government to adapt during the Covid-19 pandemic (Rahmanto & Rafi, 2020). Additional responsibilities and obligations of the government include the provision of quality public services and ensuring that government information is readily available, something that is critical in today's world (Mahmud & Hamson, 2020). As the public becomes more critical, so do their efforts to obtain open and honest data. This is evident in the public's increasing need for open and honest data (Rafi, Suswanta, Handoko, & Nabilah Effendi, 2022). In addition, the fact that there is a lack of bureaucratic readiness in using technology and information in the implementation of public services has also led to increasingly complex dynamics (Yasa et al., 2021). Thus, the government proceeded to establish various methods to ensure that information could be more easily accessed by all segments of society to demonstrate that the government was improving (Saksono & Manoby, 2021). The government also aims to take specific actions to realize good governance through public services in the Covid-19 era, where people require speedy services with the aid of information technology known as electronic government (Richard & Irani, 2019). Thus, the nature of public services, which are usually provided directly to the community, then undergoes a substantial transformation, where service procedures must be carried out indirectly (digital) but must still be responsive (Pratiwi, 2021; Rafi et al., 2022).

Furthermore, the public has been increasingly interested in the government sector's migration to digital services from non-digital ones in recent years. To make matters more difficult for government officials who must provide electronic services, this complicates the issue (Lindgren et al., 2019; Lindgren & van Veenstra, 2018). As a result, the government is now responsible for providing electronic services as part of its mandate to offer public services (Pleger, Mertes, Rey, & Brüesch, 2020). On the whole, it is important for governments to grasp the role that technology plays in facilitating public service delivery (Huda & Yunas, 2016; Lindgren et al., 2019). As a result, the government must develop an electronic innovation plan in order to improve the quality of services provided to the public (Sá, Rocha, & Pérez Cota, 2016). As a result, governments in a number of nations have begun to seek ways to use electronic technology and innovation to improve public services and solve public issues (Linders, Liao, & Wang, 2015). As a result, electronic services can conceptualize digital-oriented services that are regarded as effective and efficient and can impact the quality of decisions and community satisfaction through the design of electronic service development (Lindgren & van Veenstra, 2018). E-services research is still in its early phases, making it difficult to pin down the dimensions, models, and levels of quality that make up a typical e-service (Azhar, 2020). Since the Covid-19 pandemic has made electronic services more complex, new studies are needed to better understand the many institutional obstacles they confront.

In the issue of digital service-based public services, various social phenomena have emphasized that when public administrators try to embark on a digital transformation journey, they need to realize that digital transformation is not free of problems, but there are some challenges, for example (financial, organizational and technical) that need to be handled properly to succeed in digital transformation (Scupola & Mergel, 2022). Then, due to ongoing changes and challenges, flexibility in

digital service-based public services should become the domain of service entities between the public and private sectors (Hrabi et al., 2022). A review of the transformation of digital services based on the principles of good governance with a focus on the principles of transparency, accountability, effectiveness, and efficiency will be carried out to investigate within the Riau Provincial government. We chose these three metrics to be in line with the Riau Provincial Government's goal of improving public services through the implementation of an Electronic-Based Government System, which is often referred to as e-government (Diskominfotik.riau.go.id, 2022). Based on this, this research is different and has a gap with previous research which reviewed the transformation of digital services in a broad scope in Indonesia, the state of the art of this research will look at the readiness of Riau Province for digital service transformation by using three main indicators of good governance (transparency, accountability, as well as effectiveness and efficiency) which is believed to be an extraordinary idea to see how the government can implement adaptive digital governance in the Covid-19 era. Therefore, this study has an important objective to review how public services are reshaped by digital technology to realize good governance in Riau Province.

**Research Methods**

This study uses a qualitative approach as a contextual study in visualizing a certain phenomenon in a highly organized manner (Fadli, 2021). In this study, data comes from secondary sources such as books, journals, proceedings, government websites, and several local online news sites (*Halloriau.com, Lamanriau.com,* and *Beritariau.com*) which have been verified by the Indonesian Press Council for administrative accuracy and factual. In this study, researchers used documentation techniques through the Nvivo Ncapture feature which was used to collect news about public services during the Covid-19 pandemic in Riau Province. This research data analysis method uses the Crosstab Query analysis feature on the Nvivo 12 Plus application to find the percentage of concepts (nodes) used and explain research variables that affect the object and focus of research (Woods, Paulus, Atkins, & Macklin, 2015; Woolf & Silver, 2018). So, the purpose of this article is to explain how digital public services can be used in the Covid-19 era to lead to good governance in Riau Province. The research data analysis process is shown in Figure 1 below:
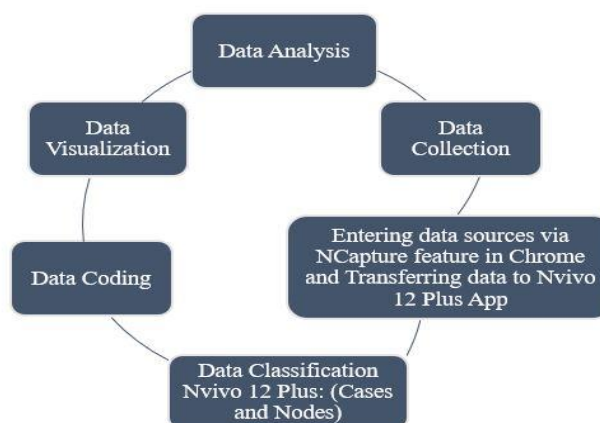


**Figure 1.** Research Data Analysis Process
*Source: Processed by the author using NVivo12 Plus tools (2022)*

**Results and Discussion**

Covid-19 has become a driving force in the government's digital service-based transformation to improve public services during its development (Dewi & Tobing, 2021; Yunaningsih, Indah, & Eryanto Septiawan, 2021). As a result of digital transformation, people from all walks of life are now required to change their lifestyles (Junarto & Suhattanto, 2022). Every province in Indonesia is expected to implement a digital service transformation to achieve good governance in Indonesia (Rafi et al., 2022). This also applies to Riau Province (Malay Earth) which according to the map of the distribution of Covid-19 in 2021, there are a total of 40,392 positive cases of Covid-19 in this Malay Earth. Of which 36,063 recovered, 2,601 were isolated, 732 were hospitalized, and 996 died. This has resulted in the rapid spread of Covid-19 in Riau Province (Kompas.com, 2021).

During the Covid-19 pandemic, the Riau Provincial Government has pushed for steps to accelerate digital transformation, including the development of an Electronic-Based Government System (SPBE) or e-government (Diskominfotik.riau.go.id, 2022). To determine the readiness and implementation of digital service transformation during the Covid-19 pandemic in Riau Province, we used variables from the principles of good governance which consist of three indicators to be discussed, namely: transparency, accountability, and effectiveness and efficiency.

**Transparency of Public Services in Riau Province**

Transparency is a critical component of achieving good government (Herasymiuk et al., 2020). It is therefore critical to conduct a thorough investigation into the transparency of public services to ensure that the community's needs are being met. There must be a free flow of information, as well as direct access to the general public interested in public services, as a condition of transparency (Cahyadi, 2017). Based on data from several online media that have been coded through the Nvivo 12 Plus software, we found the visualization results as shown in Figure 2 below:
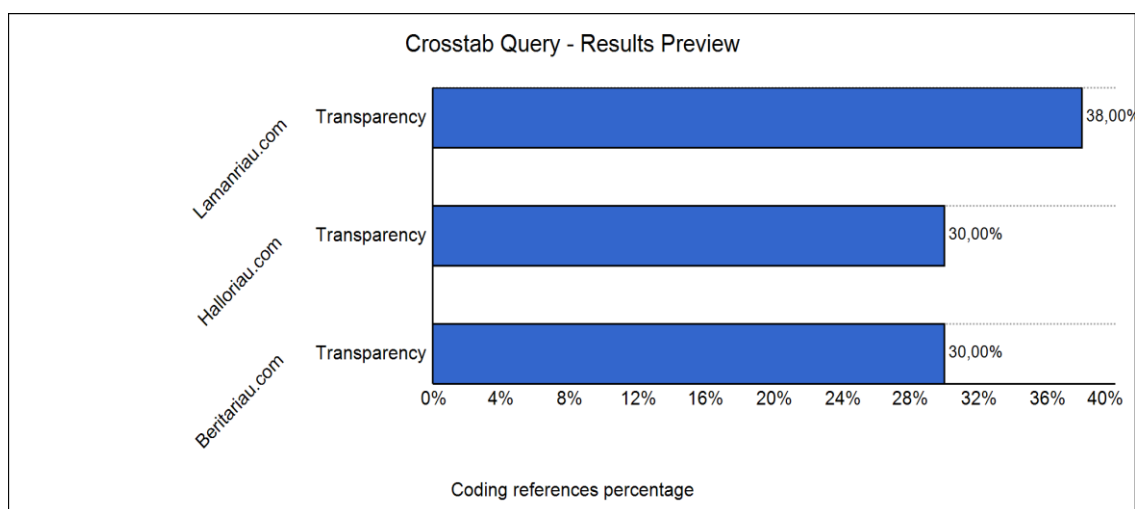


**Figure 2.** Transparency of Public Services During the Covid-19 Pandemic in Riau Province
*Source: Analysis Results Using Nvivo 12 Plus, 2022*

Figure 2 shows that during the Covid-19 pandemic in Riau Province, *Lamanriau.com* (38,46%) was the most prominent online media in promoting the notion of public service transparency, followed by *Halloriau.com* (30,77%) and *Beritariau.com* (30,77%) which has relatively the same percentage. Then, if explored

further regarding the issue of public service transparency in Riau Province, it is related to the existence of the Covid-19 pandemic which has encouraged the Riau Provincial Government to carry out various innovations and collaborations in the disclosure of public service information in Riau Province, such as the preparation of the "Mata Bansos" application as a monitoring tool for the Riau provincial government and a social control tool for the distribution of social assistance for the Covid-19 disaster to the community. Then, the application of the "Mata Bansos" application is realized through three main concepts, namely monitoring at the level of policymakers, verification of the distribution of social assistance by field officers, and supervision by the general public. Furthermore, there are a number of other initiatives in digital-based public services that have been carried out by the government through the Riau Province Diskominfo such as the Riau Provincial Government Podcast, Riau Media Center, Riau Audience, Website *corona.riau.go.id*, Data House, e-finance, Riau Investment Canal (RIC), and Digital Services for Family Learning Centers (Padi Puspaga) (Beritariau.com, 2022; Halloriau.com, 2021; Lamanriau.com, 2021).

As a whole, the Riau Provincial Government's activities are aimed at enhancing public services and distributing public information via digital-based services. An ecosystem of technology-based ecosystems was built in response to the Covid-19 pandemic to offer information to the public and enhance public knowledge of the pandemic, as well as provide a framework for developing policies to deal with it. For the Riau Provincial Government's public services, it is clear that the way of providing these services has begun to shift from a direct service process to an online and digital direction, this has an impact on providing better services to the community regularly.

**Accountability of Public Service in Riau Province**

During the Covid-19 virus pandemic, digital service-based public services will be able to help the community by delivering information and increasing public service activities (Belinda & Costari, 2021). Accountability in public services is very important because it can show whether the services provided by the government comply with the norms and values of society and whether they are able to meet actual public requirements (Agostino, Arnaboldi, & Lema, 2020). Based on data from several online media that have been coded through the Nvivo 12 Plus software, we found the visualization results as shown in Figure 3 below:
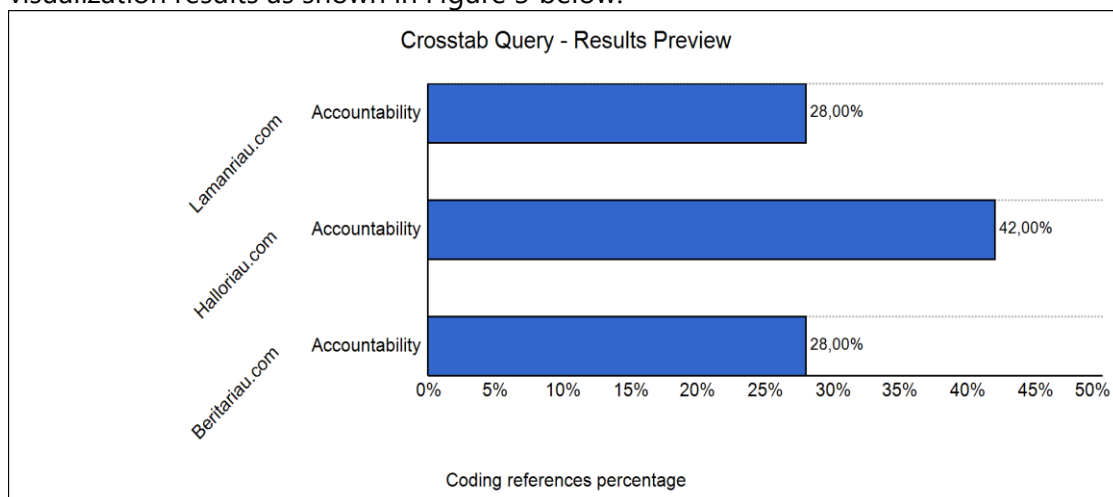


**Figure 3**. Accountability of Public Services During the Covid-19 Pandemic in Riau Province
*Source: Analysis Results Using Nvivo 12 Plus, 2022*

During the Covid-19 outbreak in Riau Province, it is clear from Figure 3 that *Halloriau.com* (42,86%) is the most prominent online media promoting the notion of public service accountability. Then, two other online media have relatively the same percentage, namely *Lamanriau.com* (28,57%) and *Beritariau.com* (28,57%). Furthermore, if we take a closer look at the issue of public service accountability in Riau Province, we can see that it is related to different challenges of public service accountability in Riau Province, such as the orientation of public service providers to provide digital services and the problems faced by service providers the public to meet the needs of the community during the Covid-19 pandemic. Although every stakeholder already knows how important digital services are in the Covid-19 era, where the performance management system of the State Civil Apparatus as a public servant must be able to adapt to the new normal era by providing digital-based public services. However, there are also problems with the limited quality of the internet network which is still not good enough in some areas, especially 3T areas (frontier, outermost, and underdeveloped) in Riau Province. There is also a community assessment that says the implementation of digital services in Riau Province is still not optimal, and the Mata Bansos application still cannot provide guarantees to people who get social assistance.

**Effectiveness and Efficiency of Public Services in Riau Province**

Effectiveness and efficiency are important processes of every institutional activity, were to be effective and efficient, reliable and trustworthy resources must be available to provide results that meet public needs (Winarno & Retnowati, 2019). Substantially, for public services to be more effective and efficient, the bureaucratic system that runs them must be able to guarantee the best service to the people who use them (Mulianingsih, 2020). In the wake of the Covid-19 pandemic, the government will be able to serve its citizens better and faster if it uses digital technology (Purbasari, Muttaqin, & Silvya Sari, 2021). Also, based on data from several online media that were coded with the Nvivo 12 Plus software, we found the visualization results shown in Figure 4:
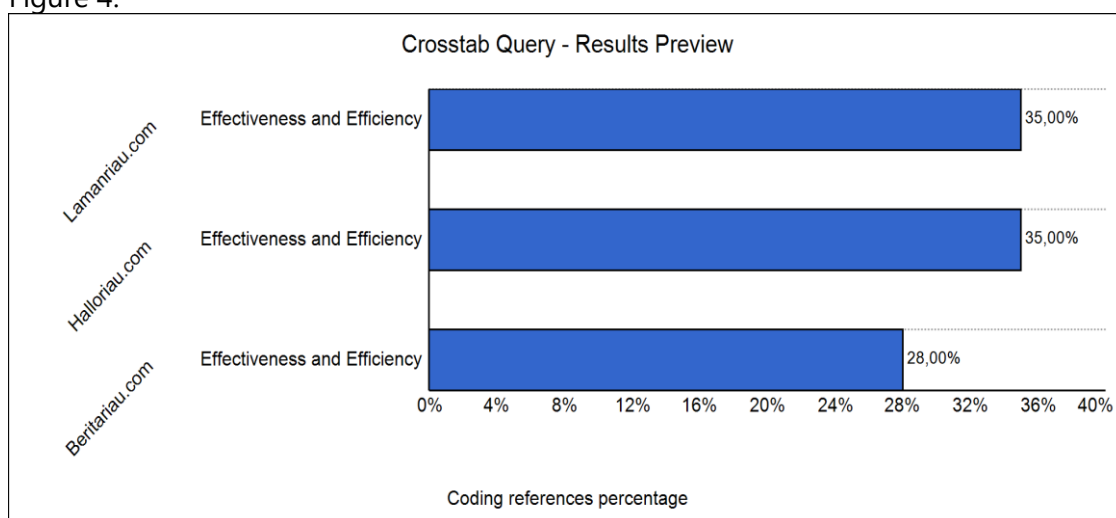


**Figure 4.** Effectiveness and Efficiency of Public Services During the Covid-19 Pandemic in Riau Province
*Source: Analysis Results Using Nvivo 12 Plus, 2022*

From Figure 4, we can see that *Halloriau.com* (35.71%) and *Lamanriau.com* (35.71%) are the two online media that most often talk about how effective and efficient public services were during the Covid-19 pandemic in Riau Province. Then

followed by *Beritariau.com* (28.57%). Furthermore, if we look more closely at how effective and efficient public services are in Riau Province, we find that they are linked to the awards that the Riau Provincial Government has won for public service innovations that have helped the community. For example, the Ombudsman of the Republic of Indonesia ranked the Riau Provincial Government first in the category of High Compliance with Service Standards Public Year 2021. This award was given for the dedication of the Riau Provincial Government to improving the Management of the State Civil Apparatus (ASN) as well as various innovations and collaborations that continue to be carried out to produce service facilities for the community in the very rapid development of technology era (Halloriau.com, 2021).

Then, through the "Mata Bansos" application launched by the Riau Provincial Government together with the Riau Province Financial and Development Supervisory Agency (BPKP) as a system that facilitates the distribution of social assistance to communities affected by Covid-19 and has been recommended for adoption nationally, there are several benefits for the public which include the opportunity for the community to monitor the budget and realization of social assistance originating from provincial/district/city financial assistance in real-time, being able to verify all beneficiary data and be involved in updating all beneficiary data. So, through this application, it can be seen that the community can also monitor whether the recipients of the assistance are on target or vice versa. Thus, Even though the award might not be the most important part of putting public services into place and dealing with Covid-19. But the existence of an award will show how ready a region is to change its public services based on digital services to give the community better services (Rafi et al., 2022; Yunaningsih et al., 2021).

Furthermore, based on the results of the analysis that we have done in reviewing the transformation of public services based on digital services as an effort towards good governance in the province of Riau, the results of the analysis that we conducted using the Crosstab Query Analysis feature are shown down below in Figure 5:
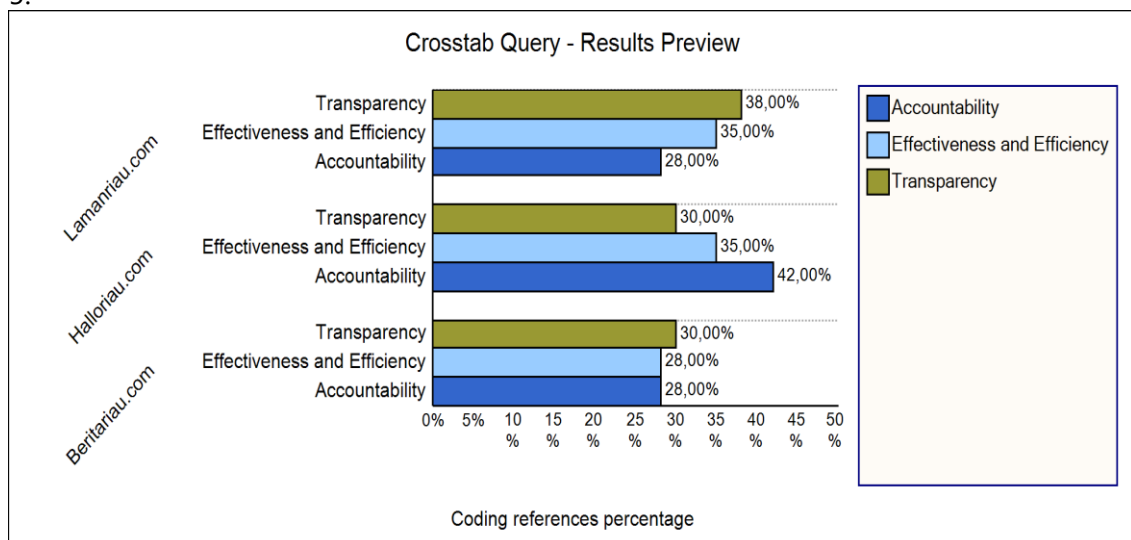


**Figure 5.** Crosstab Query Analysis of Public Services Based on Good Governance Principles in Riau Province
*Source: Analysis Results Using Nvivo 12 Plus, 2022*

Figure 5 visualizes that in terms of public service transparency in Riau Province, the online media site Lamanriau.com (38.46%) is the most dominating media source on

this issue. The transparency of the Riau Provincial Government in providing public services to the community can be linked to various public service procedures that have been carried out openly and can be accessed by all interested parties (the community). Also, public services have started to change so that they can be done online and digitally. These changes will help the public get better and more accessible services. Then, when it comes to the public service in Riau Province being accountable, online media *Halloriau.com* (42,86%) is the most dominant media in highlighting accountability issues. In terms of accountability, it is thought that government officials in Riau Province have a good understanding of how important digital services are in the Covid-19 era. This is because they have adapted to providing digital-based public services and always do what the law says they should do. However, even so, we see that digital service-based public services in Riau Province still face obstacles and require improvement, such as the need to improve the quality of the internet network in several places, especially in the 3T zone (frontier, remote, and underdeveloped). Furthermore, when it comes to how well and efficiently public services work in Riau Province, online media *Haloriau.com* and *Lamanriau.com* have the same percentage (35,71%) in highlighting effectiveness and efficiency issues. Several awards for public service innovations have been given to the Riau Provincial Government for their effectiveness and efficiency. Where in 2021 Riau Province was ranked first in the Predicate of High Compliance with Public Service Standards. Then, various innovations and collaborations continue to be carried out to make it easier for the community to get services, such as through the "*Mata Bansos*" application which has been launched to help people affected by Covid-19 and has provided the opportunity for the community to review the distribution of social assistance funds to be the more accurate.

The Riau Provincial Government has supported digital transformation projects as a way to improve public services. In this case, the Riau Provincial Government has focused on three things: the role of e-government, the implementation of e-government, and improving public services in Riau Province. Then, it's based on the rules for e-government in Indonesia, such as the Law of the Republic of Indonesia Number 14 of 2008 about Openness of Public Information, The Government Regulation Number 71 of 2019 about the Implementation of Electronic Systems and Transactions, The Presidential Regulation No. 95 of 2018 about Government-Based Electronic Systems, Regulation of the Minister of Communication and Informatics Number 8 of 2019 concerning the Implementation of Concurrent Government Affairs in the Field of Communication and Informatics, Regional Regulation of Riau Province No. 6 of 2015 concerning Information Technology-Based Government Systems and Information Disclosure, and Regional Regulation of Riau Province No. 3 of 2019 concerning The Riau Province Medium-Term Development Plan for 2019-2024 which is relevant to the fifth mission of Riau Province, namely realizing good governance and excellent public services based on technology and information. Then, each region is essentially required to map out a grand design for the implementation of the Electronic-Based Government System in their respective regions to draw up a digital transformation roadmap going forward. Where Riau Province has adopted two parts of e-Government, namely the Software Development Life Cycle (SDLC) methodology or a structured service development system, and public service innovation. In addition, of the 85 public service sectors in Riau Province, they have been classified into 8 service sectors, each of which has been integrated with digital services. Meanwhile, the Riau Province digital transformation roadmap in 2022 aims to build a strong and integrated digital transformation base. So, this study agrees with the findings of Rafi et al., (2022) which

said that the transformation of digital service-based public services during the Covid-19 pandemic was a big step toward good governance in Indonesia on the part of the government.

## Conclusion

Based on the explanation above, it can be concluded that in digital service-based public services in Riau Province, the Riau Provincial Government can take big steps towards good governance by changing digital-based public services that focus on three principles, namely transparency, accountability, and effectiveness, and efficiency during the Covid pandemic -19. In terms of transparency, Riau provincial government agencies have implemented open procedures by offering digital public services and continue to improve to serve the public better and more. In terms of accountability, every stakeholder in every agency has a good idea about how to realize digital services. However, digital service-based public services in Riau Province are still facing challenges and need improvement, such as the need to improve the quality of the internet network in several locations, especially in the 3 zone (frontier, remote, and lagging). In terms of effectiveness and efficiency, the Riau Provincial Government has received various awards for public service innovation. In addition, the government has launched the "Mata Social Assistance" application which is intended to help people affected by Covid-19 and provide opportunities for the wider community to assess the allocation of social assistance funds so that they are more accurate and on target.

The substance of this research contributes in the form of recommendations to continue to improve public services by utilizing existing digital service applications and integrating public services that have not been collectively integrated with digital-based services. This research has limitations in its research methodology which only collects data from local online media and some secondary data sources. Therefore, further research is needed to explore other relevant primary data. This study also suggests that further research should use a data collection approach based on observation and interviews.

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