

Conference Paper

Integrated Digital Public Service Transformation: A Government Main Application in Makassar City

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Abstract.

Integrated digitization services are efforts to develop public services by utilizing information and communication technologies in an integrated manner. This study aims to analyze how the government of Makassar City adopts a digital approach to maximize public services. This study relies on Online Research Methods (ORMs) to collect data and information via the Internet and other digital technologies. The ORMs in this study include the results of the data retrieval available from the official website and the application of the Makassar City government (Anrong). The findings indicate that the government has adapted to implement integrated web-based services and applications that make it easier for citizens to access information and public services online. The transformation of integrated digital public services promises great benefits to society and the government, but its implementation also has challenges and obstacles that must be overcome. The perfection of the three elements of process, support, capacity, and value, results in an imbalance because the support element does not yet have the legal force of the mayor's regulation, but the success of the capacity element shows the activeness of the two websites and mobile apps. Some commonly found challenges are infrastructure and technology problems, limited human resources, changes in organizational culture, data security and privacy, and the level of community participation.

Keywords: public service, digital services, government app, government transformation

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1. Introduction

Public services are urgently needed to meet community needs and ensure that basic rights are fulfilled [1] [2]. Public services are services provided by the government to benefit society, covering various fields such as health, education, security, and transportation [3] [4]. In general, public services ensure that everyone has access to the same basic services, regardless of their background or social status. This helps build a more inclusive and just society while also improving the quality of life of society as a whole [5].

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Current research trends have pushed public services to work digitally [6]. The digitalization of public services is a very important step in increasing the efficiency and effectiveness of public services and increasing the accessibility and participation of the public in using public services [7] [8]. Digital public services enable the public to access public services anywhere and at any time without the need to visit public service offices. This is especially helpful for people living in remote or hard-to-reach areas.

In addition, digital public services can reduce the cost and time required to provide public services [9]. For example, online registration can reduce long queues and the time required to manually register. Digital public services can also improve service quality by enabling people to provide feedback online and enabling public service workers to respond quickly [10] [11]. Digital public services are very important for improving the efficiency, effectiveness, and quality of public services, increasing public accessibility and participation, and increasing transparency in the provision of public services.

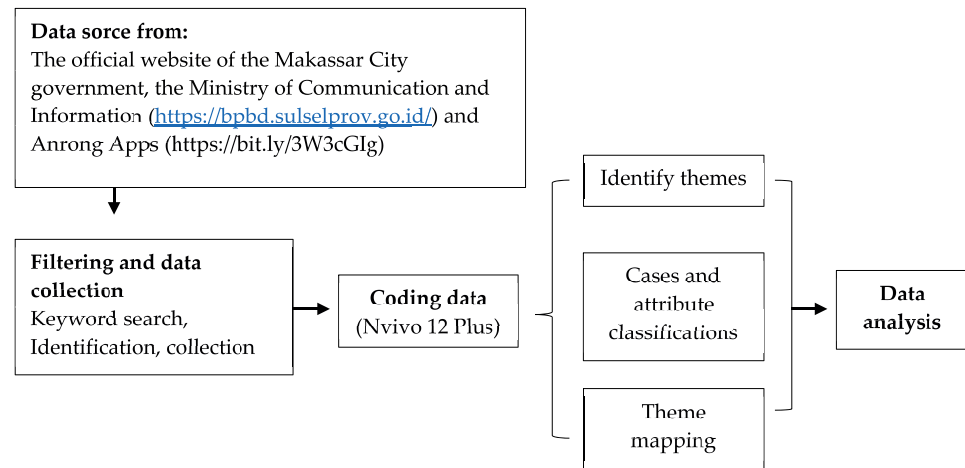
Thus, the government and society need to pay attention to and increase the digitalization of public services to meet the needs of society in this digital era. Many current government systems have adopted the concept of digitization, including in Makassar City [12]. The Makassar City Government, since 2022, has maximized the use of the main application known as Application Unification Real Time on Government (Anrong). The application is a step toward making it easier for the public to obtain government services [13].

Several studies have been conducted on public services. However, very few studies have found that simultaneously relate this topic to understanding digitalization, especially focusing on cases at the local level. The purpose of this study was to fill the research gap left by previous researchers. The research question is as follows: (a) How can integrated digitalization services support public services in Makassar? (b) What challenges are faced in implementing the main government application for integrated digital public services in Makassar City? The answers to these two questions are useful for supporting the idea of digitalization in public services in the future.

2. Methods

This study relies on Online Research Methods (ORMs) to collect data and information via the Internet and other digital technologies. The ORMs used in this study included data retrieval results available from official government websites and applications. Data were retrieved from the Makassar City government's official website

(<https://anrong.makassarkota.go.id/>). The successfully collected data were then captured. Simultaneously, some data that have not been visualized on the website in the form of text information are encoded using the NVivo 12 Plus analysis tool.



Source: Processed by Authors (2023)

Figure 1: Data Analysis Process

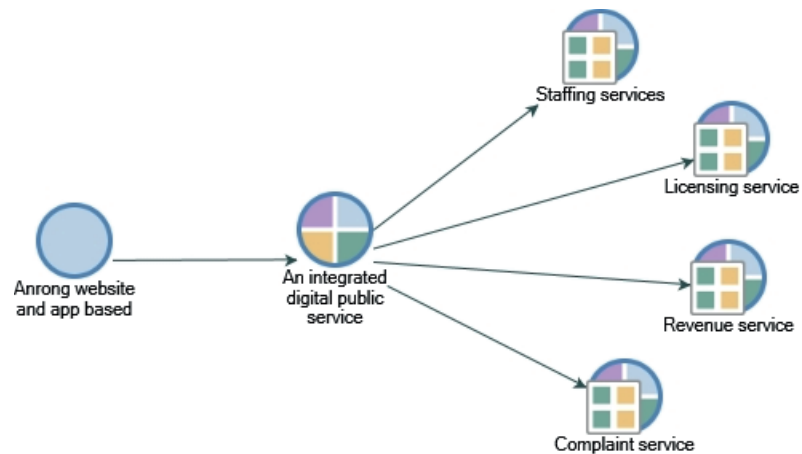
Figure 1 shows the analysis process in this study, which begins with the data-collection stage by determining the relevant data sources. The data source is official government information indexed on official government websites and applications. Data collection was performed using Ncapture in Google Chrome and transferred to the analysis tool for data coding using the Nvivo 12 Plus analysis tool. This process maximizes the available analytical features, such as identifying themes, cases and attribute classifications, and theme mapping. The coding results were then analyzed and described to answer the research questions.

3. Results and Discussion

3.1. Integrated digitization services: Supporting public services in Makassar City

Integrated digitization services are efforts to develop public services by utilizing information and communication technologies in an integrated manner. This can help improve the efficiency and effectiveness of public services provided to the public. The integrated services are mapped as follows:

Digital public services through the Anrong website and applications are an effort to improve the quality of public services by utilizing information and communication



Source: Processed by Authors (2023)

Figure 2: Integrated digitalization -public services (Anrong).

technology in an integrated manner. In the integrated web-based and application services (Anrong), the public can access several government applications. Examples of public services that can be accessed through Anrong include personnel, licensing, income, and compliant services. Through Anrong, the public can access government data and statistical information from government agencies in Makassar City [13]. Anrong also provides licensing services online, such as business licenses. The public can also access licensing requirements online.

In addition, Anrong provides an online complaint service for people who want to report problems or complaints related to public services provided by the government [13]. Integrated digital public services in Makassar City (Anrong) are public service systems that utilize information and communication technology to integrate various public services in a centralized digital platform. With this integration, the public can access various public services through the same digital platform, thus making access and use easier. The government's efforts to digitally provide public services through the Anrong website and its applications are expected to increase the efficiency and effectiveness of public services and facilitate public access to better public services. This can also help accelerate the transformation of public services in Makassar City towards a more modern and integrated one.

The results of studies and research from the Harvard JFK School of Government [14] show that the elements of the successful implementation of the Anrong platform as a digital government-based public service in the city of Makassar are support, capacity, and value. As support for the implementation of e-government, both support from the government, local communities, and stakeholders [15] [16] [17]. There is will from the

leadership of the Makassar City Communication and Information Service Agency. This was done with a research process to make the application super APPS and improve the appearance of the web design and data information needs. Consequently, in early 2023, two web platforms and mobile apps will be active.

As a support element, the functioning of a working system in a government requires rules that support the implementation of the Anrong platform as a digital government-based public service in Makassar. The Anrong application is an innovation of the Regional Work Unit (SKPD) of the Communication and Information Service, which does not yet have regulations and SOPs. In the development stage, the supporting rules are only in the form of circular letters to SKPDs to provide service applications that can be included in Anrong apps. This should be regulated by a mayor to become legally enforceable for the use of this Anrong platform service [18] [19] [20]. The application of the Anrong platform as a digital government-based public service in the city of Makassar is inseparable from the government's role in conducting outreach to the community so that the public can learn about the program. The socialization of the Anrong platform as a digital government-based public service in Makassar City is evenly distributed, continuous, consistent, and comprehensive. Publishing in online media, through billboards, and published in the form of information on the Makassar.go.id website and several other online media.

The application of the Anrong platform in digital governance-based public services in Makassar requires sufficient resources to carry out these innovations. Financial resources determine the fulfillment of other resources in the realization of digital government-based services to provide services to the community. The budget given to seven experts is an honorarium, but it is necessary to pay attention to the welfare, comfort, and safety of these experts, which have not been covered only through honorarium and bonuses are needed [21] [22] [23]. Technology infrastructure resources are also urgently needed to determine the success of implementing the Anrong platform in digital government-based public services in the city of Makassar by providing server infrastructure and data center domains in a special room. Service application digital needs to pay attention to people's personal data and web security [24] [25]. Human resources in implementing the Anrong platform as a digital government-based public service in the city of Makassar, with seven experts having programming and IT governance skills. The addition and reduction of these resources needs to be done to improve the Anrong of the Makassar city government.

Elements of value from the government side as a service provider (supply side). Various E-Government initiatives, namely the Makassar City Communication and Informatics Service, Regional Revenue Agency, Social Service, Makassar City Government Population and Civil Registration Service, Makassar City Tourism Office, Makassar City Spatial Planning and Building Office, PPID (Information and Documentation Management Officer), Makassar City Fisheries and Agriculture Service, Goods Procurement Services, Makassar City Education Office, Makassar City Public Works and Public Housing Service, Makassar City Employment Service, Regional Financial and Asset Management Agency, Fire and Fire Service, Land and Building Tax, Research and Development Agency, Makassar City Regional Development, Makassar City Transportation Service, and Regional Planning and Development Agency [13].

It is a data center or government information center with health services, Complaints, Population Data, Tourism Events, CCTV Information, MSMEs Matching Business and Food Prices, and public Wi-Fi. The benefits obtained from the existence of e-government are not the government itself but the community and those with an interest (demand side), namely, facilitating service information with the Anrong super APP. However, the community still does not feel that the service is not optimal, because the development of several features cannot be opened. For this reason, the government must be very careful in choosing priority types of e-government applications that must be prioritized for development, so that they provide value (benefits) that are significantly felt by the community [26] [27] [9]. Understanding what the community needs will have the effect of bringing a boomerang to the government will make it increasingly difficult to continue efforts to develop the concept of e-Government [28] [29] [30].

3.2. Integrated digital public service transformation: A challenge

The transformation of integrated digital public services promises great benefits to society and the government, but its implementation also has challenges and obstacles that must be overcome. Some commonly found challenges are infrastructure and technology problems, limited human resources, changes in organizational culture, data security and privacy, and the level of community participation. The biggest challenge in transforming integrated digital public services is adequate infrastructure and technology availability. The main obstacles to developing integrated digital public services are problems such as limited internet access, unstable connections, and lack of data security [31] [32] [33] [34].

Developing and managing integrated digital public services requires skilled and competent human resources [35]. The challenges in this regard are the lack of experts who understand the technology and can develop appropriate applications, and the lack of training and support for public officials in operating integrated digital public services. The transformation of integrated digital public services also requires changes in organizational culture that encourage innovation and collaboration between government institutions. This involves coordination between government agencies, developing integrated frameworks, and changing mindsets that encourage innovation and collaboration [36].

Additionally, the transformation of integrated digital public services requires adequate privacy protection and data security. The challenge in this regard is the increasing threat to cyber security and the risk of data leakage, which requires appropriate technology and policy solutions to maintain data security and privacy [34][35]. Community participation in transforming integrated digital public services is challenging [37]. Communities need an understanding and awareness of the benefits of digital public services and easy and open access for the public to participate in integrated digital public services. To overcome these challenges, integrated digital public services can be transformed more effectively and provide greater benefits to the community and government.

In this situation, the government's role in overcoming the transformation and adoption of digitalization of public services is crucial [38] [39]. The government needs to implement policies and regulations that support the digitalization of public services. This includes drafting laws and regulations that facilitate digital technology adoption, personal data protection, cybersecurity, and interoperability standards between platforms [40] [41]. It is also possible for the government to allocate budgets to build adequate digital infrastructure, such as fast and affordable broadband Internet networks, data centers, and technology platforms that can support digital public services [42].

In addition, the government must ensure digital accessibility for all citizens, including those living in remote or low-income areas. This can be done by providing affordable internet access, technology training, and public access centers [43] [44] [45]. Another effort being considered is increasing public awareness about the benefits of digitizing public services [46] [47]. This requires information and education campaigns [48] (Túñez-lópez et al., 2020). Campaigns and education helped remove barriers and distrust when using digital technology. To address these issues, the government should monitor and evaluate the implementation of digital public services to ensure quality, security, and efficiency.

4. Conclusion

Integrated digital public service transformation optimizes public services by utilizing information and communication technology. The Makassar City Government has adapted to implement web-based and application-based integrated services (Anrong), making it easier for residents to access information and public services online. Perfection of the three elements of process, support, capacity, and value results in an imbalance because the support element does not yet have the legal force of the Mayor's Regulation, but the success of the capacity element shows the activeness of the two websites and mobile apps. The transformation of integrated digital public services promises great benefits to society and the government, but its implementation also has challenges and obstacles that must be overcome. Some commonly found challenges are infrastructure and technology problems, limited human resources, changes in organizational culture, data security and privacy, and the level of community participation.

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