

# Analyzing the Role of the @sapawarga\_jabar Twitter Account in Advancing Digital-Based Public Services towards Smart City Development in West Java Province, Indonesia

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**Abstract.** This study analyzes the impact of the @sapawarga\_jabar Twitter account on digital-based public services for smart city development in West Java, Indonesia. Using a qualitative approach, the study examines the content and effectiveness of the Twitter account in delivering public services. Data analysis is conducted using the @sapawarga\_jabar Twitter account and Nvivo 12 Plus software. Findings demonstrate that the account provides services related to car tax payments, employment, health information, and regional infrastructure development. Engagement rates peaked in March 2022, indicating active user participation and information dissemination. The study also identifies both positive and negative impacts, highlighting improved access to services and limitations due to internet access. Overall, the research contributes insights into the role of social media in enhancing digital public services for smart city initiatives in West Java. These findings can guide policymakers in optimizing social media platforms for effective public service delivery and smart city development.

**Keywords:** Digital era; Public service; Social Media ;Twitter

## 1 Introduction

Public services, including community engagement, become a strategic and critical part when good governance is in place (Flynn & Brennan, 2020). In the context of public services, innovation is the result or result of the process of evaluating and improving complaints, grievances, and contributions from the community as service users (Pratama, 2020). This means that community participation strongly influences the innovation potential of service

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providers (Thaung Htet, 2021). The more actively communities are involved in improving public services, the more opportunities governments have to innovate (Rodr, 2021). Digital public service innovation has the following benefits (Pali & Schuilenburg, 2020): Firstly, simply and equitably, where public services are more accessible and where the general public can feel their benefits; Secondly, through service needs, the innovations created can meet service conditions and requirements; Thirdly, effectively, accurately and intentionally; Fourthly, efficiently, quickly and cheaply.

With the rapid development of information technology and the increasing number of Internet users (Verma et al., 2023), the role of social media is to send and receive information that is easily accessible to ordinary people (Romanelli, 2020). Government public service providers' use of social media is a governance innovation to maximize technological opportunities (Kencono, 2021). Social media is a digital platform that allows users to participate, share and connect without space or time restrictions (Durst, 2019). The social media used by the West Java Provincial Government is @sapawarga\_jabar. Twitter is a communication tool commonly used by governments to disseminate relevant information quickly and efficiently (Gotlib et al., 2019), such as obtaining various aspirations, information, and public services or complaints from the public (Wahab et al., 2020). However, the state's use of social media requires a professional and measurable approach, and good management of social media can increase public satisfaction with the public services provided by public service providers (Fialová et al., 2021).

In the digital age, the West Java provincial government has introduced an innovation called Super Apps Sapawarga (Hu et al., 2021). This is a kind of integrated innovation to enable people to digitally and quickly access various public services in West Java in collaboration with the Department of Communications and Information, Regional Planning and Development Agency, Labor and Immigration Department, and Department of Health. Sapawarga Super Apps offers a variety of transactional, informational, and interactive services in one application in an easier way. In addition, Sapawarga is integrated with Pikobar regarding Covid-19 services (Ismunandar et al., 2020) and online motorcycle tax services (Chen & Silva, 2021).

Super Apps Sapawarga will help people in West Java to express their hopes, get information and improve public services such as bureaucratic difficulties, administrative complexities, and lack of information in 2022 through the Twitter social network @sapawarga\_jabar (Nurhuda et al., 2021). It is planned to become popular as a portal for dealing with Sapawarga and seeks to harness community digital opportunities for the public good, including optimal and equitable public services, infrastructure, and aspirations of communities and government decision-makers in various areas of government (Hidayati, 2020). Sapawarga as a form of concern for the West Java government, get even better. Sapawarga is the evolution of e-government in policy and regulatory development in West Java, where the government offers the convenience of one-touch community participation and an active role in communicating its wishes (Nabila & Junitasari, 2021).

However, like a previous study by (Budhirianto & Sumiaty, 2022), the Sapawarga application has been described as a means of communicating and informing the public about the Covid-19 pandemic. The target audience for the Sapawarga application is still limited as it is located in Chibogo Village, Lembang District, Bandung Province. Through Twitter, the researchers hope that all regions and groups in the West Java region will benefit from this application. Additionally, existing functionality has been updated to provide easy access to public services in one application. However, the above information and results need further investigation. Therefore, the focus of this research question is the strength of Twitter @sapawarga\_jabar and its relevance to public services such as Covid-19 issues,

infrastructure, tax payments, government information, and public communication in communicating job listings. In the reaction, researchers use Twitter @sapawarga\_jabar to provide quality public services. Therefore, it is hoped that the information obtained from the results of this study can be used as a reference for Indonesian government agencies to inform the public using digital opportunities as a communication medium.

## **2 Method**

This research is qualitative research with a descriptive approach (Enworo, 2023). Qualitative research is constructivism assuming that reality has many facets, interactive, and exchanges of social experiences to be interpreted by each individual (Bogna et al., 2020). This study uses the Nvivo 12 Plus software as an analytical tool (Verdugo-Alonso et al., 2022). Furthermore, researchers use the NCapture feature which functions to capture content originating from Twitter @sapawarga\_jabar (Swasty & Mustafa, 2022). NCapture that can be included is a capture made with the NCapture function as a standard NVivo application that is installed automatically in Google Chrome when NVivo is installed. NCapture makes it easy to get research data related to the analysis of social media content without having to read and analyze posts one by one.

## **3 Basic Theory**

### **3.1 Digital Public Service**

Digital public service refers to the production of public services using digital technology, where interactions with public sector organizations are mediated through information systems (Kubina et al., 2021). Society demands transparency, efficiency, and accountability from public institutions (Hasna, 2022). Increased adoption of digital technologies is a key part of government responses to these demands and can bring significant benefits to local and national economies at large (Gohari et al., 2020). Digital public services are becoming more and more important to society as they make life on earth easier and faster (Große-Bley & Kostka, 2021). The positive effects of digital services in various areas are reduced personal costs associated with carrying out activities, efficient use of time, and increased work efficiency and transparency in the private or public sector (Yin et al., 2022).

The public service process requires the existence of a concept or innovation in the delivery of services to the public (Tassabehji et al., 2019). One form of service media that can be used as a government tool is the use of social media. Social media contains a variety of information that is shared with others using information and communication technology resources (Alexopoulou et al., 2022). The contribution of social media can be considered creative by providing positive and negative responses and promoting the improvement of information and communication technology which aims to make it easier for people to access information (Criado & Gil-Garcia, 2019). There are many types of social media, one of which is Twitter microblogging (Al-Sarem et al., 2019). Twitter is one of the social media that currently attracts a lot of public interest. This media allows the public to access information more easily, so this media is the choice to increase understanding or to meet user needs (Bolicic et al., 2020).

Implementing public services in the digital age requires a technocratic approach. Digital-based approaches to society must therefore be adapted to the agendas, needs, and preferences of communities (Wirtz et al., 2021). In an unforeseen situation like the Covid-19 pandemic,

using available digital technologies such as Twitter to deliver public services through social media is extremely important and effective in terms of technical planning, and it is important to involve participants efficiently and cost-effectively (Agostino et al., 2020).

### **3.2 Social Media in Government**

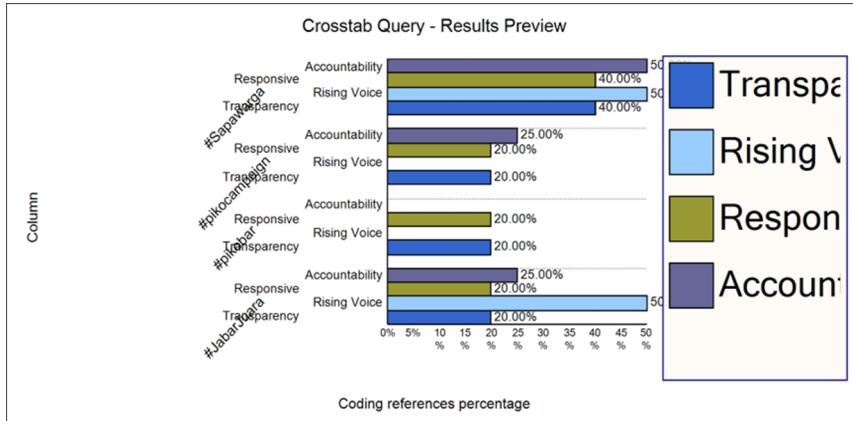
The use of social media in government aims to build engagement and connections between the government and hard-to-reach groups such as marginalized or indifferent groups (Hamid et al., 2022). Marginalized groups are groups that have little direct access to the government, and indifferent groups are groups that deliberately withdraw from the government, such as youth and women's groups (Prabowo et al., 2021). Governments have an interest and priority in promoting the use of social media to increase the transparency, accountability, and efficiency of information and government services (Ninčević Pašalić et al., 2021). The intended openness leads to interaction to solve government challenges in various sectors (Slipets, 2022). The government in the modern era is helped by the rapid development of information technology with the internet making distance and time effective (Demydov et al., 2020). Transparency and speed are very important to provide services to the public without forgetting the responsibility for performance (Twizeyimana & Andersson, 2019).

The internet has become a tool for the government to provide fast and easy services, and involve the public to monitor the course of public services, therefore, there are benefits of social media in government (Santos et al., 2021), including (1) encouraging government efficiency by using social media, can be achieved effectively wider and faster with artificial intelligence technology used as a tool in the data analysis process. (2) restoring public trust that has collapsed in an all-digital era where people find it difficult to filter hoax news information on social media Twitter can create a sense of distrust with the government's digital track record, so it will be more personal and communicative. (3) facing the changing times, the government saves more budget, competent staff, and advanced bureaucracy, and (4) means of communication in conveying aspirations, criticisms, and suggestions from the public.

## **4 Findings and Discussion**

### **4.1 Content Analysis Hashtags from Twitter Sapawarga @sapawarga\_jabar**

The primary purpose of using social media is to disseminate information about government public services to the general public (Hashim & Mohamad Salleh, 2021). Social media platforms act as intermediaries between the two. This feature is integrated with Twitter and makes it easy for users to follow interesting topics (Mokgolo & Dikotla, 2021), because:



**Fig. 1.** Content Analysis from Twitter Account

On Twitter, social media account Sapawarga @sapawarga\_jabar. Nothing related to public service is separate from transparency, accountability, responsibility, and a rising voice. A form that implements the functions and benefits of Super Apps Sapawarga itself as a communication medium to disseminate public service information from the West Java Provincial Government to the public. This information includes 4 public services available on the sapawarga application: firstly, is the Motor Vehicle Tax (Sambara) payment service which can make it easier for the public to make tax payment transactions online (Träskman, 2022), secondly, job search services (Si Juara) can make it easier for the public to get information related to job vacancies that match their interests and competition, thirdly health information services related to the Covid-19 pandemic (Pikobar) more factually and accurately that can easily obtain information related to the Covid-19 pandemic (Ismunandar et al., 2020), and fourthly hamlet greeting services related to aspirations in regional infrastructure development so that it is even better. Sapawarga Super Apps is a form of Electronic Government (E-Gov) development which is one of the innovations developed by the Provincial Government of West Java and is managed by the Office of Communication and Informatics. Jabar Champion is the goal of the West Java Government in realizing data-based policy making, accelerating government digital transformation, and making people's lives easier with digital technology (Chandra, 2021).

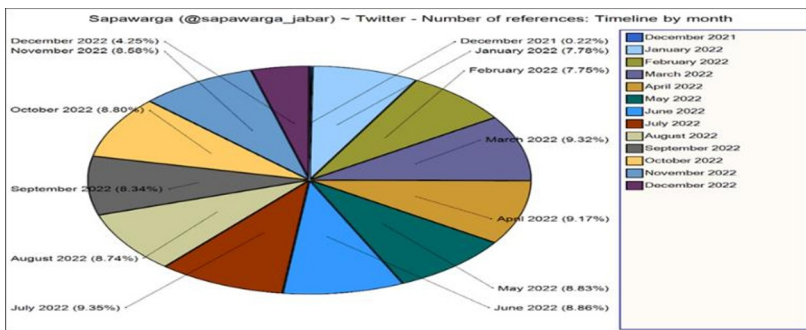
#### 4.2 Narrative Analysis of the word *West Java*



**Fig. 2.** Narrative of Public Service in Twitter Account

Sapawarga application is created, maintained, and used for the people of the West Java region, so the most common word is 'West Java'. West Java Governor Ridwan Kamil wants to achieve his goals by supporting information and technology-based city services and responsive, adaptive, and innovative decision-making through JabarJuara (Romanelli, 2020). This implementation, called Jabar Super Apps, is a modification of it Sapawarga application originally developed by the West Java provincial government to convey people's wishes directly to the governor through the hamlet. Transforming Sapawarga into a great app is about providing more effective, efficient, and publicly accessible information and public services. Super Apps Sapawarga is an integrated public service application that enables the general public to digitally and faster enjoy various public services in West Java. This application was developed to realize West Java's vision of becoming a digital state with better governance and public services through data, design, and technology. Sapawarga is an attempt by the governor of West Java to become more intimate as a medium of two-way communication between the government and the people. While social media currently exists as a forum for direct interaction between the governor and the local community, Sapawarga is a more inclusive West Java that exists as a communication tool for people and as an aspiration fulfillment, a communication bridge, and a gateway to public services. online.

#### 4.3 Interaction Intensity on Sapawarga Twitter Activity @sapawarga\_jabar

**Fig. 3.** Intensity Interaction of Twitter Account

This data shows the activity intensity of the Sapawarga Twitter account @sapawarga\_jabar which is managed and is under the auspices of the West Java Provincial Government from 2021 to 2022 (Nguyen & Pham, 2020). In the data index above the Sapawarga application will be introduced to the public in December 2021 as a communication tool that is integrated with Pikobar in disseminating information on services related to Covid-19 in West Java, but at that time the enthusiasm and response to public services in the field of health in the community was still small, this is evidenced by the percentage in December 2021 which only obtained 0.22%, this could occur due to a lack of socialization of the sapawarga application through social media Twitter. Whereas from January to April 2022 public interest fluctuated greatly towards the enthusiasm for spreading information about Covid-19, it was proven that in January it gained 7.78% and fell by 0.02% in February 2022 to 7.75 while in March it increased by 1.57% to 9.32% because in March the community has benefited from the information obtained, such as being a center for disseminating information that is more relevant and updated, the covid-19 schedule, consultations with doctors and requests for vitamins needed later. From May to July 2022 there has been a significant increase, this is

due to the addition of features to the sapawarga application such as making it easier to pay taxes, and get job vacancies information, to simplify population matters which are then disseminated via social media Twitter @sapawarga\_jabar, despite the increase in May and June only differed by 0.02% from 8.83% to 8.85%, meaning that the community's response to public services in various fields is still expected. So that the highest peak is in July 2022 with a gain of 9.35%. Finally, from August to December 2022 there was a decrease in interaction and response from the public towards the use of social media @sapawarga\_jabar. This is because the public can obtain the same information from different social media accounts which are still under the auspices of the West Java Provincial Government.

## 5 Conclusion

Digitalization in the public sector aims to make it easier for people to access services. With the convenience of this service, it is hoped that it can change the stigma of public distrust of poor government public services. People's trust in the government is like plain paper, with a bad stigma on government services, the plain paper is like crumpled paper. The digitization of public services is the government's effort to restore the initial situation like plain paper where people have trust in the government. The West Java Provincial Government through the Sapawarga Super Apps is socialized using the social media Twitter Sapawarga @sapawarga\_jabar to the public to introduce and disseminate forms of public service communication information in the health sector, government bureaucracy, etc. The results obtained in this study include:

The content aims to make it easier to search for keywords or topics on Twitter Sapawarga @sapawarga\_jabar where 4 indicators are important topics of public service, including transparency, accountability responsibility, and a rising voice. Word Cloud from the word "West Java" indicates that the target scope and objectives are only for people who are in the West Java region, both in cities and regencies. The findings that there is still minimal use in the district area because there are still areas that have not been reached by the internet. Even though to access this application requires an internet network. The intensity of the Sapawarga Twitter account @sapawarga\_jabar starts in 2021 in December. Then there was fluctuating interaction between the Government and the public in January-April 2022. In May-June it experienced a decline, this was because the public could access information not only on one Twitter account but there were still many other Twitter social media accounts, the peak was in July 2022 will get 9.35% meaning that the intensity and interaction from the community will increase rapidly because the information that is disseminated provides benefits related to Covid-19 such as vaccination doses.

Significant interaction patterns on the social media platform Twitter are very influential in the dissemination of public service information which includes: Information related to Covid-19, Infrastructure, and Taxes to Job Vacancies. The conclusion from the Sapawarga account @sapawarga\_jabar is that the use of Twitter to disseminate information in support of public services is still low or not maximized.

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