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Public Relations Management of the Sapawarga Application in Supporting the Development of a Smart Province

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ABSTRACT

Research Problem: Digital public service platforms are increasingly important to Smart Province initiatives, yet their effectiveness depends not only on technological infrastructure but also on effective public relations management. Despite its role in supporting digital governance in West Java, the management of the Sapawarga application requires further examination, particularly regarding audience segmentation, communication evaluation, and responsiveness to public complaints.

Research Purposes: This study examines how the West Java Communication and Information Office (Diskominfo Jabar) manages the Sapawarga application through the four stages of public relations management proposed by Cutlip et al. (2011).

Research Methods: This study employed a qualitative case study approach. Data were collected through observation, semi-structured interviews, documentation, and audiovisual materials. The analysis was guided by the four-stage public relations management framework: defining the problem, planning and programming, taking action and communicating, and evaluating the program.

Results and Discussion: The findings indicate that Sapawarga management encompasses all four stages. Problem identification initially emphasized facilitating coordination between the provincial government and neighborhood association (RW) heads and verifying social assistance recipients. Planning and programming incorporated the Life Event Cycle concept, while communication activities included socialization, public events, and social media promotion. However, evaluation primarily relied on technical audits and internal operational discussions rather than systematic assessments of communication outcomes. Other limitations included inadequate audience segmentation, insufficiently measurable communication objectives, and weaknesses in communication evaluation. Some users also reported receiving no substantive responses to complaints submitted through the channels they used.

Research Implications and Contributions: This study contributes to public relations management and digital governance literature by demonstrating the importance of integrating audience analysis, responsive complaint handling, and outcome-oriented evaluation into digital public service management. Practically, it recommends strengthening communication strategies and feedback mechanisms to improve public engagement, service responsiveness, and alignment with West Java's Smart Province agenda.

Keywords: Sapawarga, Public Relations Management, Digital Governance, Smart Province, Public Service Communication.

INTRODUCTION

Advances in information and communication technology have encouraged governments to improve public service delivery through digital platforms that enhance efficiency, information access, and citizen participation. Digital public services can create public value through greater accessibility, efficiency, transparency, and opportunities for democratic participation (Luna et al., 2024).

Government digital platforms also serve as communication channels for information exchange and citizen engagement. In Indonesia, citizens' engagement with government social media and websites has been associated with perceptions of transparency, public trust, and citizen engagement (Ernungtyas & Boer, 2023). Recent research also indicates that digital government transformation can contribute to increased public trust and citizen participation (Nurlinah et al., 2025). These findings highlight how digital platforms connect public services with government-citizen communication.

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Figure 1. Sapawarga App Display

Source: https://jabarprov.go.id/sapawargaSapawarga, 2024

The Sapawarga App exemplifies this transformation in West Java. Developed by the provincial government and managed by Diskominfo Jabar through Jabar Digital Service, the application has operated since 2019. Initially, it facilitated coordination with neighborhood association heads (ketua RW) to register and verify social assistance (Bansos) recipients. This function continued during the COVID-19 pandemic and was considered to support more effective and efficient distribution. In 2022, access was expanded to all residents of West Java. This development also reflects the province's digital context, the 2025 survey by the Association of Indonesian Internet Service Providers (APJII) reported internet penetration of 86.52% in West Java.

Based on Diskominfo Jabar data, Sapawarga has recorded 1,660,959 downloads and an average of 6,889,928 accesses per week. It integrates 40 services, including vehicle tax payments, real-time bus tracking, government data, Masjid Al Jabbar reservations, and public complaints and aspirations. Citizens assess digital government not only by its administrative efficiency but also by its accessibility, functionality, transparency, and opportunities for participation (Luna et al., 2024).

Sapawarga supports the West Java Provincial Government's Jabar Smart Province agenda. Giffinger et al. 2007 conceptualize the smart city through technology, people, and institutions, principles relevant to smart province development through ICT integration in governance, public services, and citizen-oriented innovation. This concept emphasizes the utilization of digital technology in governance, public services, as well as innovation to support a better societal life (PORTALJABAR, 2022). Sapawarga supports this agenda by integrating public services and information and providing channels for citizens' aspirations and complaints. However, its contribution depends not only on technological availability but also on how government institutions manage information, respond to citizens, and facilitate interaction through digital services.

From a public value perspective, digital transformation requires government institutions to use technology to create public value and strengthen government–society relations (Luna et al., 2024). Accordingly, managing Sapawarga involves both digital service delivery and government communication. Eviany et al. (2025) emphasize the importance of systematic government communication in establishing effective communication between government institutions and the community and supporting government functions. This perspective is relevant because Sapawarga combines public services with information exchange, aspirations, complaints, and citizen government interaction.

Sapawarga can therefore be examined through public relations management, which focuses on communication and relationships between government institutions and their publics. Cutlip et al. (2011) identify four stages of public relations management: defining the problem, planning and programming, taking action and communicating, and evaluating the program. This framework examines how Diskominfo Jabar identifies public needs, plans communication, implements activities, and evaluates Sapawarga.

The importance of managing these interactions is supported by research showing that online interactions between government agencies and citizens can be assessed through response time, reactive transparency, and message interactivity (Tsai et al., 2022). In West Java, the availability of public service information, consistency in responding to public interactions, and the comprehensibility of government information are important factors influencing civic engagement through local government social media (Atnan & Imran, 2024). These findings indicate that effective digital

government communication requires not only information dissemination but also responsiveness and systematic interaction management.

Research on government public relations in Indonesia has shown that digital platforms can be strategically managed to foster digital dialogue and public participation (Praratya et al., 2024). Fadlilah (2025) identifies Sapawarga as a digital communication channel through which the West Java Provincial Government can establish two-way communication, improve access to information, and encourage public participation. However, Fadlilah's systematic literature review does not empirically examine how Diskominfo Jabar implements the stages of public relations management in its organizational practice.

Previous studies have examined digital government communication from several perspectives. Ernungtyas and Boer (2023) investigate the relationship between engagement with government digital platforms, perceived transparency, public trust, and citizen engagement. Luna et al. (2024) examine public value creation through digital service delivery from the citizens' perspective. Fadrial et al. (2025) analyze the relationship between e-government services and public trust in Indonesian local government. Atnan and Imran (2024) highlight the role of public service information, administrator responsiveness, and information comprehensibility in civic engagement through local government social media. Praratya et al. (2024) further examine how government social media initiatives can facilitate digital dialogue and public participation.

Research directly related to Sapawarga has also examined its role in government digital communication through a government cyber public relations perspective (Fadlilah, 2025). However, Fadlilah's systematic literature review does not empirically examine how Diskominfo Jabar implements the four stages of public relations management in its organizational practice. Therefore, further research is needed to understand how these stages are implemented in managing Sapawarga and what challenges arise in the process.

This study addresses this gap by examining how Diskominfo Jabar manages Sapawarga through the four stages proposed by Cutlip et al. (2011). It focuses on how the agency identifies public needs, plans and implements communication activities, evaluates their implementation, and addresses the challenges encountered. By examining these processes, the study seeks to explain how public relations management supports Sapawarga's role in the development of West Java as a Smart Province.

LITERATURE REVIEW

Public relations management, as introduced by Cutlip et al. (2011) provides a framework for systematically managing public relations activities to build and maintain effective relationships between an organization and its publics. In the context of this study, the framework is relevant for examining how Diskominfo Jabar manages public relations activities related to the Sapawarga application to support the development of a Smart Province.

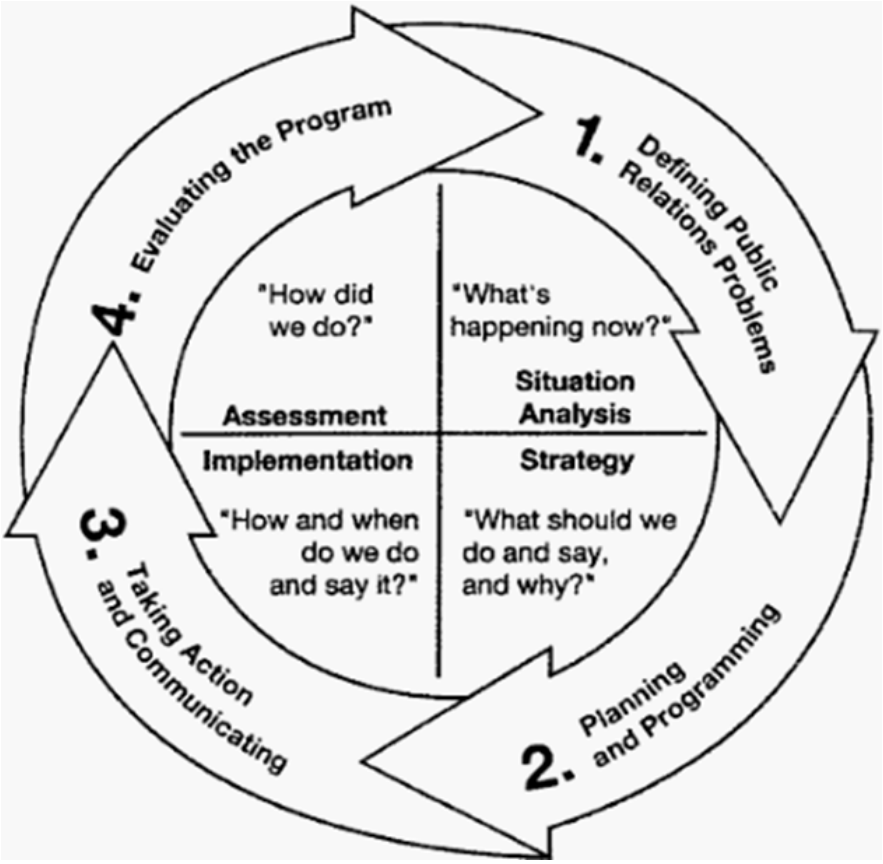

Figure 2. Stages of Public Relations Management

Source: Cutlip et al. , 2011

Defining Public Relations Problem

The first stage is defining the public relations problem, or more commonly known as problem identification. At this stage, facts or data related to the condition of the institution and the needs of the public are collected in order to determine the appropriate public relations activities to be carried out. These data can be obtained through opinions, weaknesses, and responses conveyed by the public regarding the institution.

The problem identification stage is important because it serves as the foundation for determining public relations activities that are suitable for the existing conditions and needs. This stage aims to answer the question, 'What's happening now?'. In relation to this, the steps that the institution can take are to first carry out problem identification based on the data and information obtained, and then understand the occurring conditions through situational analysis.

Planning and Programming

The second stage is carrying out public relations activity planning based on the results of problem identification and situation analysis that have been conducted previously. Planning is a crucial stage because the direction of the implementation of an institution's public relations activities is determined at this stage. This stage aims to answer the question 'What should we do and say, and why?'. In this regard, the steps that an institution can take include setting objectives, identifying the public, and determining targets.

Taking Action and Communicating

The third stage is the implementation of public relations activities that have been previously planned. This stage is the implementation of the question 'How and when do we do and say it?'. At this stage, the institution conveys information or messages to the public regarding the public relations activities being carried out. Effective communication is essential so that the information delivered can attract attention, increase public participation, and strengthen the institution's image.

In the stage of implementing public relations activities, there are several steps that need to be taken. The first step is action strategies, which involve building interaction with the public and taking actions that can develop and influence the public's perception of the institution conducting the public relations activities. Furthermore, the second step is communication strategies, which include conveying information in a predetermined manner to the public regarding the public relations activities, using communication media that are appropriate for the public, employing language or symbols suitable for the public, and ensuring that the information can be received by the public.

Evaluating the Program

The fourth and final stage is the evaluation of the public relations activities that have been carried out. This stage can be understood as the answer to the question 'How did we do?'. Evaluation is conducted to determine and measure the level of success of the activities. Through this stage, the organization can also find out whether the communication objectives have been achieved or not. The evaluation results are obtained from feedback provided by the public regarding the activities. Subsequently, these results can be used as a basis for improving the quality of activities in the future.

METHOD

This research uses a qualitative approach, examining phenomena in a natural setting to produce a detailed, in-depth description of the issue under study (Denzin & Lincoln, 2018). This approach was chosen to understand the meaning informants give to the management of the Sapawarga application through observation, semi-structured interviews, documentation, and audiovisual materials.

This study employs a case study research type, specifically an intrinsic case study focusing on an in-depth understanding of a case that possesses uniqueness (Creswell, 2017). Case studies are generally used to examine a specific, bounded phenomenon within the context of a particular time and activity, such as an institution or social group (Creswell & Poth, 2017). This design also produces a descriptive, explanatory, and interpretive account of a phenomenon in real time (Stake, 2005). It is particularly well suited to obtaining rich, in-depth data about a bounded system, such as an individual, group, institution, or phenomenon (Merriam, 2009).

This study focuses on the management of the Sapawarga application by Diskominfo Jabar in supporting the image of West Java Province as a Smart Province. The case was selected because Sapawarga has developed into an integrated digital public service platform while also receiving complaints from users, creating challenges for the government agency responsible for its management. The phenomenon under study spans the 2019–2026 period, while data collection was conducted from November 2025 to July 2026. Data were collected through observation, semi-structured interviews, documentation, and audiovisual materials (Creswell, 2017).

Interview

The researcher conducted semi-structured interviews to explore the views, experiences, and perceptions of informants. The interview guide was supplemented by open-ended questions to obtain detailed information and address the how and why questions that are central to case study research (Yin, 2016).

The study involved ten informants, consisting of five Sapawarga administrators from Diskominfo Jabar and five Sapawarga users who serve as RW (neighborhood unit) heads in several areas of Bandung City. The researcher used purposive sampling to select the informants. Sugiyono (2020) explains that purposive sampling is a technique for selecting data sources based on specific considerations, including a person's knowledge and understanding of the subject being

studied.

The five Sapawarga administrators were selected based on the following criteria: (1) having been a member of the Citizen Engagement Service Team for at least one year; (2) having knowledge and understanding of the Sapawarga application management process; (3) having been directly involved in managing the Sapawarga application for at least one year; and (4) being willing to allocate time and provide information through interviews.

The five Sapawarga users were selected to provide the user perspective. They were RW heads from several areas in Bandung City. The selection criteria were: (1) having served as an RW head in Bandung City for at least one year; (2) having used the Sapawarga application and being able to describe their experience using it; (3) being either an active or passive Sapawarga user; and (4) being willing to allocate time and provide information through an interview. Active users were defined as those who had used the application at least six times during the previous year, whereas passive users were those who had used the application three to five times during the previous year. The characteristics and roles of the ten informants are presented in Table 1.

Table 1. Profile of Informants

No	Informant	Position	Category	Interview Period
1	Mr. RJ	Head of Citizen Engagement Service Team	Sapawarga administrator	November 15, 2025
2	Mr. RA	Product Owner	Sapawarga administrator	April 22, 2026
3	Mr. AT	Product Manager	Sapawarga administrator	April 22, 2026
4	Mr. I	Software Engineer	Sapawarga administrator	May 20, 2026
5	Mr. A	Software Engineer	Sapawarga administrator	May 20, 2026
6	Mr. LM	Head of the Bandung City RT/RW Forum and Head of RW 12, Padasuka Urban Village, Cibeunying Kidul District (Active User)	Sapawarga user	July 7, 2026
7	Mr. DS	Head of RW 3, Pasir Impun Urban Village, Mandalajati District (Active User)	Sapawarga user	July 8, 2026
8	Mrs. Y	Head of RW 7, Jatisari Urban Village, Buahbatu District (Active User)	Sapawarga user	July 10, 2026
9	Mr. T	Head of RW 11, Sukabungah Urban Village, Sukajadi District (Passive User)	Sapawarga user	July 14, 2026
10	Mrs. IN	Head of RW 2, Lebakgede Urban Village, Coblong District (Passive User)	Sapawarga user	July 14, 2026

Source: Processed by the author, 2026

Observation

The researcher conducted direct observation of the work environment, interactions, and activities related to Sapawarga management at Diskominfo Jabar, Gedung Sate. Observations were conducted on November 15, 2025, April 22, and May 20, 2026, concurrently with the interview process.

Documentation

The researcher examined institutional documents from the Citizen Engagement Service Team, including work guidelines, activity reports, annual reports, and other written materials related to Sapawarga management. These documents were used to complement and strengthen the interview data.

Audiovisual

Audiovisual materials, including media reports, documentation of work activities, and video clips related to the Sapawarga application, were examined to complement the interview and documentary data.

The data collected were subsequently analyzed using the qualitative data analysis model of Miles and Huberman (2014), consisting of data reduction, data display, and conclusion drawing and verification. Data reduction involved selecting and coding interview transcripts, observation notes, and institutional documents according to the four stages of public relations management. Data display involved organizing coded excerpts into thematic matrices for each stage. Conclusions were drawn and verified through triangulation across interviews, observation, documentation, and audiovisual materials to assess the consistency of information from different sources.

RESULTS AND DISCUSSION

Defining Public Relations Problem

Diskominfo Jabar identifies institutional needs and gathers information to guide the development of the Sapawarga application, corresponding to the first stage of Cutlip et al.'s (2011) public relations management framework. However, the initial problem identification focused primarily on the application's original function rather than a comprehensive assessment of public needs for the broader range of services introduced later.

Sapawarga was developed in 2019 as a digital channel for coordinating with ketua RW, particularly to register and

verify residents requiring Bansos. Although this initiative preceded the COVID-19 pandemic in 2020, the pandemic increased the importance of accurate social-assistance targeting. In 2022, Sapawarga was relaunched with a wider range of public services and expanded access to residents across West Java. This expansion reflected the provincial government's effort to integrate public services into a single digital platform.

Mr. RJ, Head of the Citizen Engagement Service Team, explained the rationale for the application's initial development: "Okay, so for that, historically, from 2019 when it was developed, the province indeed did not have the authority to manage the community directly because that authority lies with the district or city level government. On the other hand, the Governor at that time, Mr. Ridwan Kamil, wanted to be closer to the community. So Sapawarga was designed for RW heads as a liaison between citizens and the government in conveying aspirations, obtaining services, and communication between RW heads could also be done through the Sapawarga platform. As time went on, in 2022, we expanded the scope so that the whole community could access it without having to go through the RW head."

Mr. AT, the Product Manager, identified social-assistance targeting as the main operational concern behind the application's development: "So before COVID-19, the concern at that time was Bansos. So it was more about how West Java could distribute Bansos to the right targets. Based on data, in determining recipients, we had data from the Ministry of Social Affairs, from several sources, for example from BPS and so on, but we also gathered data from RW heads. So the RW heads confirmed whether that person was really poor or not, and whether that person was still alive or not. And they could also add new recipients, so we could distribute Bansos to the right targets. During COVID-19 too, the concern was on Bansos, and it was very helpful in Bansos distribution."

The interviews show that the initial fact-finding process combined administrative data from national institutions with verification and local knowledge from RW heads. However, this process focused on identifying eligible social-assistance recipients. The findings do not establish whether Diskominfo Jabar conducted a similarly systematic needs assessment when Sapawarga expanded into a multi-service application in 2022.

Mr. LM, an RW head in Bandung City since 2009, recalled that coordination with the Bandung City Government previously took place through the district office. Sapawarga provided an additional communication channel that allowed RW heads to interact with the government without always meeting officials in person. His account supports the application's role in addressing coordination needs, although it does not establish whether the broader range of services was developed through a systematic assessment of different user groups.

In the context of Smart Province development, the initial problem identification connected administrative needs with digital communication and service delivery. The use of RW-level verification linked government data with community knowledge, while the subsequent expansion of Sapawarga created opportunities for wider public access to digital services. Nevertheless, the findings indicate a gap between identifying the application's original operational needs and systematically assessing public needs as its functions and target users expanded.

Planning and Programming

Diskominfo Jabar manages Sapawarga under the Governor's direction and oversees its technical implementation. The management team also refers to application-development guidance and technical and security standards established by relevant national institutions, including the Ministry of Communication and Digital Affairs and the National Cyber and Encryption Agency. These arrangements provide an institutional and technical basis for application development.

Sapawarga's service development follows the life-event-cycle concept, which organizes public services around needs that arise at different stages of life. The OECD (2025) describes this approach as a way to align services with citizens' needs throughout their lives. Accordingly, Sapawarga is designed to accommodate services ranging from birth-related civil administration to services required at later life stages. The objective is to provide access to multiple public services through a single application.

Mr. RA, the Product Owner, explained how Estonia's e-government approach informed this design: "The target is purely all West Java residents, because we, all of Indonesia really, had learned from Estonia. When Estonia organized public services in its E-Estonia application, they divided those services according to the life event cycle, so it's the same in Sapawarga […] So every segment is targeted, from birth to death […] though not all of these have launched yet; some are still at the planning stage […] As of now there are 40 services in Sapawarga."

Mr. AT similarly explained the rationale for using the life-event-cycle concept: "The life event cycle concept was chosen so that people, at every stage of life, can make use of the public services available in the Sapawarga application, from a child being born, going to school, getting married, starting a family, to passing away. The public services needed throughout life can be accessed through the Sapawarga application. That life event cycle became our reference in developing this application, to stay closer to people's lives."

These interviews indicate that the life-event-cycle concept provides a framework for planning service integration and defining Sapawarga's broad target audience. However, although the application targets residents across West Java, the target public has not been segmented in detail by characteristics such as age, occupation, location, or digital literacy. The intention to serve all population groups does not necessarily mean that their different communication needs have been systematically identified.

The stated objectives include increasing downloads, users, and application ratings, but informants reported no specific numerical or percentage targets. Mr. RJ acknowledged this limitation: "Actually, we haven't specifically classified targets yet. Maybe in the future this will be done, so that each public service feature in Sapawarga can be more directed in its usage."

This finding highlights a limitation in the planning process. Cutlip et al. (2011) emphasize the importance of clear

objectives in public relations planning. Without measurable targets, it is difficult to assess whether changes in downloads, usage, or ratings reflect the effects of particular communication strategies or broader changes in digital access. Indicators such as changes in public awareness and application use over a defined period could support evaluation, provided they are relevant to the communication objectives and measured reliably.

In the context of Smart Province development, the life event cycle approach provides a foundation for integrating digital public services. However, service integration alone does not ensure that services are accessible or relevant to all population groups. More detailed audience analysis and measurable communication objectives would help Diskominfo Jabar identify which groups are reached, which services are used, and where additional outreach or service adjustments may be needed.

Taking Action and Communicating

The Diskominfo Jabar promotes Sapawarga through launch events, socialization activities, public events, and social media. These activities demonstrate the implementation of communication strategies, although evidence of their reach and effectiveness varies across the users interviewed in this study.

Sapawarga was introduced in 2019 by Ridwan Kamil, then Governor of West Java and the application's initiator, at the Jabar Digital Innovation Awards at The Trans Luxury Hotel. Initially, the application targeted RW heads in Bandung City, who received smartphones with Sapawarga pre-installed to support adoption and communication with the provincial government. In 2022, Sapawarga was relaunched at Pakansari Stadium in Bogor, expanding its target audience to residents across West Java.

Mr. LM, an RW head in Bandung City, recalled the initial socialization: "At the beginning, the socialization was very good for RW heads. Especially since it was Mr. Ridwan Kamil himself explaining it, so [we] became even more enthusiastic about using the application. Also, back then we as RW heads were also given smartphones to use the Sapawarga application." He also expressed support for the application's expansion: "[I am] very supportive, because the Sapawarga application eventually was no longer just for RW heads in Bandung City, but also for the people of West Java. Also, since the 2022 relaunch, it gained many more features, so [people] can access various public services there."

Beyond launch events, Diskominfo Jabar conducts socialization activities for service users and government agencies whose services may be integrated into Sapawarga. The content is adjusted to the target audience. For example, socialization for teachers may emphasize the New Student Admission Selection (PPDB) service. Diskominfo Jabar also promotes Sapawarga through provincial government events, technology exhibitions, competitions, and the Instagram accounts @sapawarga_jabar and @jabardigitalservice.

Mr. RA, the Product Owner, explained the purpose of participating in public events: "Sapawarga also fairly often takes part in national and international-scale events to showcase our existence. At the same time, it is to let the public know that this application is from West Java."

Mr. RJ, Head of the Citizen Engagement Service Team, described the rationale for using Instagram: "Instagram was chosen because it could be said to be the most commonly used social media platform among the public. Also, at that time, in 2019, Instagram was really trending, so it was well suited for sharing information about the Sapawarga application there."

The user interviews indicate that social media helped some residents discover Sapawarga following its expansion in 2022. Mr. DS and Ms. Y first learned about the application through social media and considered the information useful. In contrast, passive users reported limited awareness of outreach activities. Mr. T rarely used the application and knew little about its socialization, while Ms. I provided only a brief general response. These accounts suggest that communication activities reached some users, but they do not establish the level of public awareness across West Java.

The findings also indicate limitations in audience analysis and communication evaluation. The available evidence does not show systematic audience segmentation by digital literacy, age, or geographic area, or a process for comparing the effectiveness of communication channels and messages. Regular evaluation through engagement metrics, post-socialization surveys, or other feedback instruments was also not established. Consequently, it remains unclear whether communication activities effectively reach less active users and residents who do not follow Sapawarga's social media accounts.

Sapawarga has received several recognitions: the Innovation category at the AWS City on a Cloud Challenge in 2020, the Best in Future of Digital Innovation category at the IDC Future Enterprise Awards in 2022, the ICT Applications: Benefits in All Aspects of Life E-government category at the World Summit on the Information Society (WSIS) in 2022, and the Digital Inclusivity category at the ASEAN Digital Award in 2026. The application has also served as a benchmark for other provincial governments. These recognitions demonstrate external acknowledgment of Sapawarga's digital innovation, but they do not directly establish whether its communication activities have increased public awareness, satisfaction, or sustained use.

Technical problems further affect the user experience. Interviewees reported slow loading, unexpected application closure, login difficulties, and service-specific errors. Mr. LM described slow loading followed by the application closing automatically. Mr. T reported similar login difficulties, while Ms. I referred to errors discussed on social media and prolonged loading times. Mr. DS could not complete a museum-ticket reservation through the Masjid Al Jabbar service because a required field would not accept input. Ms. Y also reported a long wait when attempting to pay vehicle tax through SAMBARA.

The technical team provided additional explanations for these problems. Mr. I associated slow access with high numbers of simultaneous users, while Mr. IM identified high demand for SAMBARA and NSAS as common triggers. The team reported using a bug tracker and maintenance to address application disruptions. Mr. AN emphasized the importance of rapid response: "Regarding this technical disruption, we try to handle it as quickly as possible, such as doing maintenance

with the shortest possible estimated time."

These accounts indicate that technical incident-response mechanisms exist alongside the application's communication activities. However, the findings do not establish whether technical responses are consistently accompanied by timely public communication about the causes of disruptions, expected resolution times, and follow-up.

In the context of Smart Province development, socialization and social media help residents discover integrated digital services, while public events increase Sapawarga's visibility. Nevertheless, the findings highlight the need to strengthen communication reach, user understanding, and communication during service disruptions. The availability of digital services alone does not ensure an effective user experience; their practical value also depends on reliable access and clear, responsive communication when problems arise.

Evaluating the Program

Diskominfo Jabar uses two evaluation mechanisms in managing Sapawarga: periodic external audits and internal sharing sessions. External audits are conducted in relation to Electronic-Based Government Systems (SPBE) requirements and assess the application's technical systems and devices. These audits may involve application developers or IT teams outside the Sapawarga management team. Internally, members of the Citizen Engagement Service Team discuss operational challenges, particularly technical issues, and exchange suggestions. The team also makes adjustments in response to complaints and user input to improve the application.

These mechanisms primarily support technical assurance and operational improvement rather than the evaluation of public relations outcomes. The interviews did not identify a dedicated communication evaluation system involving public-awareness surveys, user-satisfaction surveys, sentiment analysis, or systematic assessments of complaint handling. Mr. RA, the Product Owner, confirmed this limitation: "As for evaluation in terms of communication, so far there isn't one; it's more technical. But this is good input for us as managers; hopefully it can be realized soon."

Mr. RJ, Head of the Citizen Engagement Service Team, described an emerging approach to responding to negative Google Play Store reviews: "Actually, this is happening right now too. When responding to the public who give negative reviews, what we actually want to ask is what made them disappointed and what their expectations are, so we can improve the service. So what is about to be done is that we will reply to reviews on the Play Store, first apologizing for the problems that occurred, offering the public the option to submit their complaint through the Jabar hotline on WhatsApp, so we can have two-way communication about what the actual problem is; it could be that there is a misunderstanding from the user. We will not force or even ask users to change their rating to a better one, but if the user feels we have fixed the problem, the user will improve their rating on their own. What matters to us is giving our best; through that follow-up, the user will feel noticed and heard, and that, I think, is something different from typical government practice."

This account indicates an intention to strengthen two-way communication, but it describes an emerging practice rather than an established evaluation system. The proposed approach focuses on Google Play Store reviews, whereas the five users interviewed for this study reported using other channels to communicate problems, including a contact number obtained during a socialization session and comments on Instagram. This difference raises questions about whether complaint handling is coordinated across the channels used by residents. Further research would be needed to compare complaint outcomes across these channels.

The user interviews provide additional evidence of this gap. Mr. LM reported contacting a number provided during a socialization session to report login difficulties but receiving no response or guidance. Mr. DS similarly reported commenting on Sapawarga's official Instagram account without receiving a reply. "I once commented on its social media, the Sapawarga Instagram account, but it doesn't seem to have been replied to. I also didn't check again."

The other three users did not formally report their problems. Ms. Y and Mr. T generally attempted to resolve errors by refreshing or reopening the application, while Ms. I did not follow up because she rarely used Sapawarga. Thus, within this small group, the two users who attempted to contact the team through a phone or social media channel reported receiving no substantive response, while the other three did not formally report their problems. These accounts are illustrative and cannot establish complaint-handling performance across the wider Sapawarga user population. Nevertheless, they highlight the importance of ensuring that complaints are acknowledged, followed up, and communicated clearly to users.

The findings also suggest a gap between technical incident response and communication response. As discussed in the Taking Action and Communicating section, the technical team reported using a bug tracker and maintenance to address disruptions affecting high-demand services, including SAMBARA and the New Student Admission Selection service. However, the available evidence does not establish whether technical incident handling is integrated with complaint tracking, user notifications, and follow-up communication. Technical problems and communication failures may therefore remain insufficiently connected in the evaluation process, even though users experience both as part of the same digital service.

For Smart Province development, evaluation should extend beyond technical performance and compliance to include communication outcomes. Depending on available resources and data quality, relevant indicators could include response times, the proportion of complaints receiving substantive responses, public awareness of support channels, satisfaction with complaint handling, and documented improvements arising from recurring complaints. These indicators would complement existing technical audits and internal discussions, enabling Diskominfo Jabar to assess more systematically whether communication objectives are being achieved and whether user feedback contributes to service improvements.

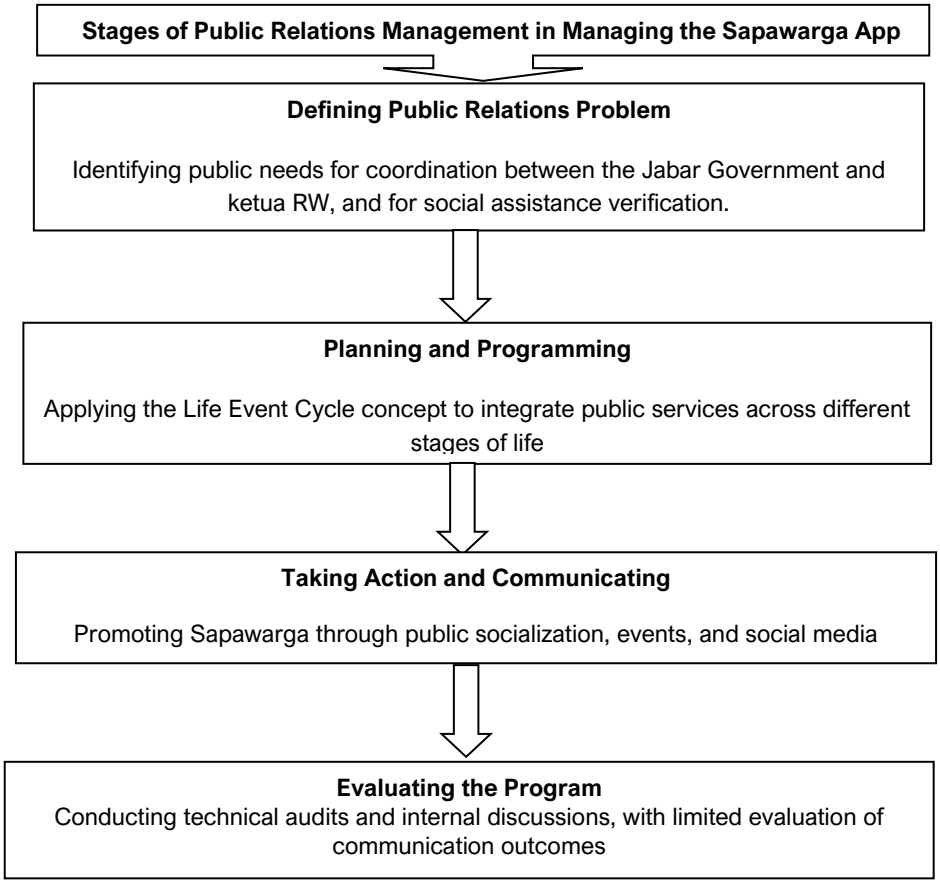

Figure 3. Stages of managing the Sapawarga App

Source: Processed by the author, 2026

Based on Figure 3, the public relations management process for the Sapawarga application consists of four stages. The first stage, defining the public relations problem, initially focused on facilitating coordination between the provincial government and RW heads and verifying social assistance recipients. However, the findings do not establish whether public needs were systematically assessed following the application's expansion. The second stage, planning and programming, is guided by the Life Event Cycle concept to integrate public services for residents at different stages of life, although detailed audience segmentation and measurable communication objectives remain limited. The third stage, taking action and communicating, involves public outreach and socialization activities, social media promotion, and participation in internal and external events intended to increase public awareness and encourage application use. However, the reach and effectiveness of these activities have not been systematically assessed. The fourth stage, evaluating the program, involves technical audits and internal operational discussions, but the findings did not identify a dedicated system for evaluating communication outcomes.

These findings suggest that the four stages are identifiable in Sapawarga's management structure, but their implementation does not yet constitute a fully integrated public relations management process. In particular, the absence of measurable communication objectives limits the ability to assess whether outreach activities achieve their intended outcomes. Similarly, the lack of a dedicated communication evaluation system constrains the systematic use of public feedback to improve communication strategies. Complaint handling illustrates these limitations: users reported technical problems and inconsistent responses through the channels they used to seek assistance. However, these accounts are illustrative and do not establish complaint-handling performance across the wider Sapawarga user population.

Sapawarga contributes to West Java's Smart Province agenda by integrating public services and information within a single digital platform. Digital service integration is also a defining feature of the smart governance model examined by Priyowidodo et al. (2024), who investigated how Indonesian local governments consolidate public services through unified digital platforms. This perspective is relevant to Sapawarga's multi-service design, which brings together various public services and information within a single application. Drawing on Giffinger et al.'s (2007) smart-city framework, the application can be understood as reflecting elements of smart governance and smart living at the provincial level. Smart governance concerns the use of information and communication technology to support public administration, service delivery, transparency, and opportunities for public participation. Nam and Pardo (2011) also highlight the potential of smart governance to improve public service delivery and strengthen public trust. Nevertheless, the present study does not establish that Sapawarga has increased public trust or participation, as these outcomes were not systematically measured.

The smart governance dimension is reflected in Sapawarga's integration of public services, access to government data through Open Data Jabar, and channels for submitting public aspirations and complaints. These features provide opportunities for information access and government–citizen interaction. However, the user accounts presented in the

Results section indicate that complaints submitted through some channels did not always receive substantive responses. The availability of digital participation channels should therefore be distinguished from evidence of effective participation and responsiveness. Li and Shang (2023) examine the relationship between e-government use and citizens' trust in government, reinforcing the importance of empirically assessing whether digital government services contribute to public trust rather than assuming that the availability of digital channels produces such outcomes. Whether these channels lead to meaningful participation or greater public trust requires further empirical assessment.

Sapawarga also reflects elements of smart living through services related to different aspects of citizens' lives, including civil administration, transportation through Metro Jabar Trans, education through the New Student Admission Selection service, and access to religious and cultural facilities through the Masjid Al Jabbar reservation service. The Life Event Cycle approach provides a framework for integrating these services around citizens' needs at different stages of life. Nevertheless, the presence of services within one application does not by itself demonstrate improvements in quality of life, accessibility, or user satisfaction. Ye et al. (2023) highlight the importance of citizen feedback in assessing digital government service quality, supporting the need to evaluate users' actual experiences rather than relying solely on the availability of digital services. Such outcomes would require additional evidence concerning actual service use and users' experiences.

The findings also have implications for the application of Cutlip et al. (2011) public relations management framework in digital government settings. All four stages defining the problem, planning and programming, taking action and communicating, and evaluating the program can be identified in Diskominfo Jabar's management of Sapawarga. However, the weaknesses identified in planning and evaluation indicate that the presence of these stages does not necessarily mean that they are implemented systematically. The lack of measurable communication objectives and dedicated communication evaluation mechanisms limits the agency's ability to determine whether its communication activities meet public needs and achieve their intended outcomes.

A further implication concerns the relationship between technical performance and public relations in digital government. The reported problems, including login failures, slow loading, and malfunctioning service features, are technical in nature. However, when users experience these problems and do not receive timely explanations or substantive responses, technical incidents also become communication issues. This suggests that public relations management in digital government should be examined in conjunction with technical incident response, particularly regarding how disruptions are communicated, complaints are acknowledged, and follow-up information is provided. Although technical reliability remains an information technology responsibility, communication about service disruptions and their resolution is also relevant to the government's relationship with its users.

Overall, Sapawarga demonstrates how integrated digital services can support the Smart Province agenda, while the findings reveal limitations in the public relations management processes surrounding the application. Strengthening audience analysis, establishing measurable communication objectives, coordinating complaint handling across channels, and evaluating communication outcomes could help Diskominfo Jabar connect digital service provision more effectively with public needs. Further research involving a larger and more diverse sample of users would help assess whether these management improvements translate into greater awareness, satisfaction, responsiveness, and public participation.

CONCLUSION

This study finds that Diskominfo Jabar’s management of the Sapawarga application can be examined through the four stages of public relations management proposed by Cutlip et al. (2011). Problem identification initially focused on coordination with neighborhood association (RW) heads and social assistance verification. Planning and programming were guided by the Life Event Cycle concept, while communication activities included socialization, public events, and social media promotion. Evaluation, however, primarily involved technical audits and internal operational discussions rather than systematic assessments of communication outcomes.

The findings reveal several limitations in this process, particularly the lack of systematic assessment of broader public needs, limited audience segmentation, the absence of specific and measurable communication objectives, and the lack of dedicated communication evaluation mechanisms. User accounts also indicate that complaints submitted through some channels did not always receive substantive responses. Although Sapawarga has received institutional recognition for its digital innovation, such recognition does not establish the effectiveness of its public relations activities in terms of public awareness, user satisfaction, or sustained engagement.

These findings suggest that effective public relations management for large-scale, multi-service digital government applications requires more than the formal presence of the four stages proposed by Cutlip et al. (2011). It also requires measurable communication objectives, systematic audience analysis, coordinated complaint handling, and evaluation instruments that assess communication outcomes, such as public awareness, user satisfaction, response times, and complaint resolution. Such mechanisms could complement existing technical audits and help Diskominfo Jabar align digital service provision more closely with public needs. In this way, public relations management can support Sapawarga’s contribution to West Java’s Smart Province agenda, although its effects on public participation, trust, and quality of life require further empirical assessment.

This study is limited by its small, non-random sample of five Sapawarga users, including a long-serving RW head. Consequently, the user accounts provide illustrative insights into service experiences and complaint handling rather than representative evidence of the wider user population. Future research involving a larger and more diverse sample of users, combined with systematic measures of communication performance and user experience, could provide a more comprehensive assessment of how public relations management contributes to the development of West Java as a Smart Province.

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REFERENCES
APJII. (2025). *Survei penetrasi internet dan perilaku penggunaan internet 2025*. https://survei.apjii.or.id/

Atnan, N., & Imran, A. I. (2024). Analysis of dominant factors driving civic engagement on the Bandung City Government's social media. *Southern Communication Journal*, *89*(3–4), 247–263. https://doi.org/10.1080/1041794X.2024.2389809

Creswell, J. W. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.

Cutlip, S. M., Center, A. H., & Broom, G. M. (2011). *Effective public relations*. Prenada Media.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2018). *The SAGE handbook of qualitative research* (5th ed.). SAGE Publications.

Ernungtyas, N. F., & Boer, R. F. (2023). The citizen trust and engagement in Indonesia government's social media and website. *Mediator: Jurnal Komunikasi*, *16*(1). https://doi.org/10.29313/mediator.v16i1.2159

Eviany, E., Batubara, Y. E., Rukmana, M. G., & Tefa, G. (2025). *Manajemen komunikasi pemerintahan dalam penyelenggaraan ketenteraman dan ketertiban*. Deepublish.

Fadlilah, N. (2025). Peran government cyber public relations dalam komunikasi digital Pemerintah Jawa Barat melalui platform "Sapawarga." *Komunikologi: Jurnal Pengembangan Ilmu Komunikasi dan Sosial*, *9*(2). https://doi.org/10.30829/komunikologi.v9i2.25262

Giffinger, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanović, N., & Meijers, E. (2007). *Smart cities: Ranking of European medium-sized cities*. https://www.researchgate.net/publication/261367640_Smart_cities_-_Ranking_of_European_medium-sized_cities

Li, Y., & Shang, H. (2023). How does e-government use affect citizens' trust in government? Empirical evidence from China. *Information & Management*, *60*(7). https://doi.org/10.1016/j.im.2023.103844

Luna, D. E., Picazo-Vela, S., Buyannemekh, B., & Luna-Reyes, L. F. (2024). Creating public value through digital service delivery from a citizen's perspective. *Government Information Quarterly*, *41*(2), Article 101928. https://doi.org/10.1016/j.giq.2024.101928

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation* (3rd ed.). Jossey-Bass.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Nam, T., & Pardo, T. A. (2011). Conceptualizing smart city with dimensions of technology, people, and institutions. In *Proceedings of the 12th Annual International Digital Government Research Conference: Digital Government Innovation in Challenging Times* (pp. 282–291). Association for Computing Machinery.

Nurlinah, Ansar, M. C., & Chowdhury, K. (2025). Impact of government digital transformation on citizen trust and participation: Evidence from Gowa Regency, Indonesia. *Frontiers in Human Dynamics*, *7*, Article 1700582. https://doi.org/10.3389/fhumd.2025.1700582

Organisation for Economic Co-operation and Development. (2025). *Government at a glance 2025*. OECD Publishing. https://doi.org/10.1787/0efd0bcd-en

PORTALJABAR. (2022). *Jabar konsisten wujudkan "Smart Province."* GAPURA JABAR (Gerbang Informasi Wargi Jawa Barat). https://jabarprov.go.id/berita/jabar-konsisten-wujudkan-smart-province-7454

Praratya, A., Sukmayadi, V., & Kamil, D. N. G. (2024). Fostering digital dialogue: A case study of government social media initiatives in advocating social participation. *Jurnal Komunikasi: Malaysian Journal of Communication*, *40*(2), 362–379. https://doi.org/10.17576/JKMJC-2024-4002-21

Priyowidodo, G., Indrayani, I. I., & Yogatama, A. (2024). Smart government-based governance through digital transformation of public services: Experience of Surabaya City Government, Indonesia. *PERSPEKTIF*, *13*(4), 1176–1186. https://doi.org/10.31289/perspektif.v13i4.12001

Sapawarga. (2024). *Fitur utama Sapawarga: Satu aplikasi untuk berbagai kebutuhan warga Jawa Barat*. https://sapawarga.jabarprov.go.id/

Stake, R. E. (2005). *The art of case study research*. SAGE Publications.

Sugiyono. (2020). *Metode penelitian kuantitatif, kualitatif, dan R&D* (2nd ed.). Alfabeta.

Tsai, J.-Y., Sweeter, J., & Candello, E. (2022). Examining response engagement in online interactions between US government agencies and citizens. *Journal of Communication Management*, *26*(1), 1–17. https://doi.org/10.1108/JCOM-07-2021-0078

Ye, X., Su, X., Yao, Z., Dong, L., Lin, Q., & Yu, S. (2023). How do citizens view digital government services? Study on digital government service quality based on citizen feedback. *Mathematics*, *11*(14), Article 3122. https://doi.org/10.3390/math11143122

Yin, R. K. (2016). *Qualitative research from start to finish* (2nd ed.). The Guilford Press.