

# Enhancing public information quality during the Covid-19 pandemic: A cyber public relations strategy on local government initiatives

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## Abstract

The Covid-19 pandemic has induced widespread fear, emphasizing the imperative for high-quality public information dissemination to alleviate societal anxiety. This research examined the Cyber Public Relations (Cyber PR) strategies implemented by the Communication and Informatics Office or *Dinas Komunikasi dan Informatika (Diskominfo)* of Jepara Regency in disseminating quality public information during the ongoing pandemic. Utilizing a qualitative case study methodology, the study focused on the efforts of *Diskominfo* Jepara to enhance public information quality, specifically related to Covid-19 data updates, health protocol campaigns, and the Covid-19 vaccination campaign. Data collection involved in-depth interviews, observations, and documentation. The analysis employed the Cyber PR framework, assessing dimensions such as strategic, integrated, targeted, and measurable, alongside indicators like intrinsic, contextual, representational, and accessibility for scrutinizing public information quality. Findings revealed some key elements in *Diskominfo* Jepara's Cyber PR strategies, including the establishment of a comprehensive digital media center, active engagement with media outlets, collaborations with influencers, and the utilization of Key Opinion Leaders (KOLs). These strategies have been intricately developed based on situational analysis and predefined communication objectives. The research contributes significantly to the academic literature on Cyber PR in local government contexts, providing nuanced insights and enriching the reference landscape.

**Keywords:** Cyber public relations; government public relations; public information quality; local government

## 1. Introduction

The global impact of the Covid-19 pandemic, marked by 6,988,679 deaths worldwide (WHO, 2023), has induced widespread panic. This crisis necessitated an urgent access to quality information to counteract the circulation of hoax news and addressed the imperative need for credible information in disease prevention (Rianto et al., 2023).

In the Indonesian context, the Covid-19 pandemic has prompted a heightened focus on the dissemination of high-quality information by central and local governments, using digital communication media. Scholars have extensively examined the pivotal role of digital communication media during the pandemic (Zanuddin et al., 2021; Afifi et al., 2022, 2023, 2024; Ashrianto et al., 2023). This emphasis on information dissemination aligns with the government's role in providing quality public information, encapsulated in the concept of Cyber Public Relations (Cyber PR).

This study concentrated on the Cyber PR strategy employed by the Communication and Informatics Office or *Dinas Komunikasi dan Informatika (Diskominfo)* of Jepara Regency, Central Java Province, Indonesia during the Covid-19 pandemic. Jepara, a small town geographically distant from the provincial capital, faces some intricate challenges in delivering public information. Residents experienced unease due to the

proliferation of misinformation and hoaxes through social media platforms such as Whatsapp, Facebook, Instagram, and Twitter, covering various aspects of Covid-19, including health protocols and vaccination issues. In response, the Jepara Regency Government actively countered false information by disseminating credible details through its official Instagram account (@pemkabJepara) and other social media channels (Suarjaya, 2020).

In the broader context of public information services during the pandemic, Circular Letter Number: 02 of 2020 from the central government served as an official guideline. It outlined the vision for local governments to provide accurate information on disease types, sources, prevention measures, health services, and Covid-19 patient management, emphasizing the use of the internet and other media channels. While the Jepara Regency Government adhered to this Circular Letter for public information services, public criticism has emerged regarding the accuracy of reported Covid-19 positive cases from Jepara. The government clarified that the data was uploaded based on information as received from the Central Java Health Service (Saputra, 2020). This case underscored the challenges faced by the Jepara Regency Government in navigating the information landscape during the pandemic.

This research is theoretically grounded in the Cyber PR concept, exploring the provision of quality public information in crisis situations. Cyber PR evolves in situations where technological advancements profoundly impact humanitarian operations, leveraging the internet and new media in PR activities (Onggo, 2004). In the era of widespread internet use,

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PR faces some challenges necessitating adaptation to technological advancements, requiring individuals to possess certain interpersonal abilities, analytical acumen, and digital technology proficiency (Permatasari et al., 2021).

Public Relations (PR) assumes a strategic role in managing internal and external communications, fostering cooperation with external parties for planned goals (Maulana & Afifi, 2021; Mulyadi, 2019). With the widespread use of the internet, PR activities evolve, and media relations emerge as a crucial strategy employed by governments to provide quality public information, influencing media coverage and contributing to a positive organizational image (Hermawan, 2020).

The evolution of mobile communication technologies prompts a re-evaluation and expansion of PR strategies. Traditional approaches designed for fixed devices are seen inadequate, necessitating the adoption of new strategies, including conceptualizing Cyber-PR as a dynamic communicative "touch" (Galloway, 2005). Digital technology's evolution significantly transforms various aspects of the PR landscape, impacting industry dynamics, organizational identity, occupational definitions, and roles. The advent of information communication technology (ICT) and digital, social, and mobile (DSM) media has reshaped PR strategies, redefining engagement rules with diverse audiences (Zimand-Sheiner & Lahav, 2022; Vercic et al., 2015).

The impact of new media extends to government institutions where Cyber PR becomes an effective means of delivering information related to public policy, socializing government policies, and maintaining positive relations with stakeholders, cultivating a favourable public image and opinion (Sari, 2009). Holtz's (2002) framework for strategic development in Cyber PR, encompassing strategic, integrated, targeted, and measurable dimensions, advocates for a coordinated, audience-specific, and measurable approach to harness the internet for effective public relations.

The Covid-19 pandemic has sparked inquiries concerning government policies and related information, emphasizing the need for enhanced information accessibility. Recognizing the imperative for effective public information services during the pandemic, governments could employ cyber community relations activities, amplifying accessibility and enabling a direct two-way communication. Implementing a communication model utilizing digital technology necessitates creativity in crafting digital media content, mandating strategic plans for rigorous and consistent content production and distribution (Ghaisani & Afifi, 2021). The adoption of open communication models through cyber community relations has the potential to foster increased public participation and elevates the quality of public bureaucratic services (Sari, 2009).

Within the domain of Cyber PR, practitioners play a pivotal role in selecting effective media for public outreach and ensuring the quality of disseminated information. Measuring public information quality is crucial, as emphasized by Wang and Strong (1996), who delineated four critical dimensions: intrinsic, contextual, representational, and accessibility aspect. This multidimensional framework ensures high-quality information in Cyber PR practices, providing a comprehensive perspective on various facets contributing to overall information quality.

Previous research extensively explored Cyber PR applications in Covid-19 public communication, delving into implementation by various entities (Hidayat et al., 2021; Damayanti and Ningsih, 2020; Pratiwi and Dunan, 2021).

However, there is a dearth of studies with a specific focus on information quality during the pandemic, especially in small cities like Jepara. This study introduces novelty by exploring Cyber PR and public information quality in Jepara, situated at a considerable distance from the Central Java Province capital, facing unique challenges in managing the Covid-19 pandemic and implementing diverse communication strategies.

This research endeavoured to explore the Cyber PR strategy implemented by *Diskominfo* Jepara to enhance the quality of public information during the Covid-19 pandemic with a specific focus on comprehending Cyber PR practices related to the communication of government-issued policies. This included Covid-19 data, health protocols campaigns, and Covid-19 vaccination campaigns. The research findings were analyzed within the framework of the Cyber PR concept, as proposed by Holtz (2002). Additionally, the dimensions of public information quality, as developed by Wang and Strong (1996), were employed for a comprehensive analysis. These dimensions encompassed intrinsic, contextual, representational, and accessibility aspects, providing a multifaceted evaluation of the quality of public information disseminated during the studied period.

## 2. Methodology

This study was situated within an interpretive paradigm, emphasizing an approach perceiving individuals as the active agents and seeking to comprehend the meaning behind human actions (Martono, 2010). Employing qualitative methods, the research aimed to extract the detailed data from specific cases, prioritizing a nuanced understanding over premature conclusions or broad generalizations (Sugiyono, 2010). The study adopted a single instrumental case study approach, utilizing a specific case to illustrate a distinct problem or concern (Creswell, 2016).

Conducted between October and December 2022 at *Diskominfo* Jepara, this research sought to comprehensively understand the implementation of Cyber PR in providing public information during the Covid-19 pandemic. Data collection in the field encompassed direct observation, note-taking, and recording of various relevant experiences and information. Additionally, it involved in-depth interviews with 10 informants, comprising 7 Civil Servants working at *Diskominfo* Jepara and 3 community members familiar with government-provided information during the Covid-19 pandemic. Non-participatory observations were carried out by monitoring activities and the official Jepara Regency government account. Documentation techniques included referencing books, journals, and academic materials, as well as images related to the application of Cyber PR during the pandemic to bolster the research findings. In this study, the identity of each informant was kept anonymous, providing only their position and background to offer relevant context. The list of research informants is presented as shown in Table 1.

The data analysis process followed an interactive model comprising four components: (1) Data collection, involving rapid and structured interviews, non-participatory observation methods, and document review; (2) Data reduction focused on selecting key themes, objects, and identifying patterns from the collected data; (3) Displaying data aimed to enhance researchers' understanding through various forms such as brief descriptions, graphics, and visual aids. In a qualitative research, presentation methods include relationship diagrams and flow

charts. (4) Conclusions that serve to address the study's initial problem formulation. Initial conclusions are provisional in qualitative research and subject to development as the researcher engages with the field. The credibility of conclusions relies on robust evidence and consistency during further data gathering (Sugiyono, 2010).

Table 1. Informants of the research

Informant	Position
Participant A	Head of Communication Division
Participant B	Sub Coordinator of Information Services
Participant C	Sub Coordinator of Mass Media
Participant D	Sub Coordinator of Documentation and Publication
Participant E	Social Media and Website Manager
Participant F	Information and Publication Material Compiler
Participant G	Section for e-Government Development, Encryption, and Information Security
Participant H	Community Member
Participant I	Community Member
Participant J	Community Member

The case study results underwent triangulation to ensure data validity by checking acquired data through multiple sources and methods. Similar and differing data were classified for further analysis. Finally, the research findings were analyzed using relevant theories and references. This iterative process contributes to the refinement and substantiation of the conclusions, aligning with the principles of rigorous qualitative research methodology.

### 3. Results and Discussion

#### 3.1. Situation Analysis and Cyber PR Strategy

The Department of Communication and Informatics in Jepara Regency, established by Regent Regulation Number 58 of 2016 and restructured under Regent Regulation Number 57 of 2019, focuses on advancing Jepara through communication and informatics initiatives. In the Communication domain, activities include managing Radio Kartini, administering social media accounts, and facilitating public reporting through the "Report to the Regent" portal. In the Informatics field, the department conducts training, develops the corona.Jepara.go.id Website for Covid-19 information, and creates an online application for foreign worker permits.

Operating within ethical standards and legal guidelines, *Diskominfo* Jepara ensures public information aligns with Indonesian laws. Embracing the Cyber Public Relations concept, especially crucial during the Covid-19 pandemic, the Department utilizes various channels like Instagram, Twitter, YouTube, Facebook, websites, radio, and complaint platforms to disseminate information on health protocols, vaccination, and social assistance. In elucidating the Cyber PR policies and activities implemented by *Diskominfo* Jepara, Participant B, Sub-Coordinator of Information Services, expounded:

*"We employ the Cyber PR concept to enhance information services, particularly amid the Covid-19 pandemic. Digital*

*tools, such as Zoom meetings, facilitate efficient information dissemination without the need for physical gatherings. The Department of Communication and Informatics effectively manages various channels, including Instagram, Twitter, YouTube, Facebook, websites, and radio with the aim of maximizing their potential."* (Participant B, Sub-Coordinator of Information Services, interview on October 31, 2022).

In formulating the Cyber PR strategy during the Covid-19 pandemic, *Diskominfo* Jepara conducted a situational analysis to assess the challenges faced and established desired communication objectives. The main situations addressed were related to the rapid spread of Covid-19 cases, an increase in Covid-19-related deaths and infections, and the proliferation of hoaxes. The situational analysis, communication objectives, and Cyber PR strategy developed during the Covid-19 pandemic can be examined in the following Table 2.

Table 2. Situation analysis, objective and cyber PR strategy

Situation Analysis	Objectives	Cyber PR Strategy
<ul style="list-style-type: none"> <li>The rapid spread of Covid-19 cases in Jepara</li> <li>Increase in Covid-19-related deaths and the number of infected patients causing panic in the community.</li> <li>Proliferation of hoaxes causing confusion in the community.</li> </ul>	<ul style="list-style-type: none"> <li>To disseminate credible and accurate information regarding Covid-19.</li> <li>To provide informational certainty and reduce confusion within the community.</li> <li>To combat hoaxes.</li> <li>To educate the public to adhere to health protocols and participate in Covid-19 vaccination.</li> </ul>	<ul style="list-style-type: none"> <li>Establishing a digital media center for comprehensive information development.</li> <li>Being engaged in media relations with mainstream and online media.</li> <li>Fostering collaborations with influencers.</li> <li>Utilizing Key Opinion Leaders (KOL) for information dissemination.</li> </ul>

As shown in Table 2, it is evident that several Cyber PR strategies were established to achieve communication objectives, including disseminating credible and accurate information regarding Covid-19, providing informational certainty, combating hoaxes, and educating the public to adhere to health protocols and participate in Covid-19 vaccination.

The execution of Cyber PR involved the establishment and expansion of media centers by *Diskominfo* Jepara. The media center maximized its outreach through traditional media such as newspapers, billboards, and stickers, as well as digital platforms, including Instagram, Twitter, Facebook, YouTube, and official website. Conventional media such as radio were also digitized, expanding their reach through streaming links on websites. Collaborations with village and sub-district government officials were forged to disseminate vaccination information through social media and websites, ensuring broader dissemination.

To enhance communication and coordination, various channels, including Whatsapp groups, were established. *Diskominfo* Jepara developed a user-friendly public complaint channel accessible through platforms such as the Regent Wadul website, Whatsapp, SMS, and various social media channels. National and provincial complaint channels, such as sp4nlapor and reportgub.jatengprov.go.id, respectively, verified the

transmission of complaints from the provincial to the district level.

Media relations played a crucial role in amplifying public information on Covid-19. *Diskominfo* Jepara collaborated with online and conventional media through channels like the "Warta info Jepara" Whatsapp group. Journalists received news links related to vaccination activities, ensuring well-informed reports. Press conferences and collaborations with local influencers and Key Opinion Leaders (KOLs) further contributed to convey information and foster the public confidence.

To expand reach and impact, *Diskominfo* Jepara was engaged in advertising activities in online media. Press conferences were held to provide journalists with insights into vaccination achievements in Jepara Regency. Collaborations with local influencers, Regent Dian Kristiandi, Task Force Spokespersons, and doctors emphasized the comprehensive approach of *Diskominfo* Jepara in implementing a Cyber PR strategy to address pandemic challenges.

The examples of public information regarding vaccination were disseminated through informative posts on official social media accounts and video content on YouTube. These strategies collectively demonstrated the commitment of *Diskominfo* Jepara in implementing a multifaceted Cyber PR strategy to effectively communicate and address the challenges posed by the Covid-19 pandemic.

### 3.2. Information Themes and Key Messages

Throughout the Covid-19 pandemic, *Diskominfo* Jepara has strategically focused on three main information themes disseminated to the public: (1) Covid-19 data updates, (2) Campaigns for health protocol policies, and (3) Covid-19 vaccination campaigns, each of which encompassed key messages that have been thoughtfully crafted to convey crucial information. The details of these key messages are outlined in Table 3.

Table 3 presents the key messages crafted by *Diskominfo* Jepara to promote accurate information, encourage health protocol adherence, and advocate for Covid-19 vaccination. The key messages related to Covid-19 data updates underscored the significance of accuracy, real-time dissemination, and accessibility, demonstrating commendable simplicity and broad accessibility through various channels.

However, the messages in combating hoaxes lacked specificity in terms of employed strategies, warranting a more detailed approach that integrates digital tools for real-time monitoring and response to enhance effectiveness.

The key messages urging adherence to health protocols were notably clear and comprehensive, incorporating specific guidelines such as hand washing, mask usage, and social distancing. Nevertheless, the strategy to foster responsibility and collective awareness would benefit from more concrete actions or examples to encourage tangible behavioural changes. Moreover, while integrated communication was highlighted, specific coordination mechanisms were not detailed, and a more explicit outline of communication strategies would enhance the overall coherence of the message.

In the vaccination campaign, the key messages emphasized persuasive communication, highlighting vaccine benefits, and promoting accessibility. The use of persuasive techniques was well-received, but the message could be fortified by incorporating success stories or testimonials to address vaccine hesitancy. Providing more specific information on distribution centres and eligibility criteria would further enhance the campaign's effectiveness. Additionally, improving the coherence of the message could be achieved by clearly outlining the steps individuals need to take to be vaccinated.

While the key messages in the Cyber PR campaign for Covid-19 in Jepara demonstrated overall clarity and coherence, areas for improvement have been identified. Enhancements in addressing hoaxes, fostering responsibility, specifying coordination mechanisms, and providing detailed vaccination information can significantly contribute to the campaign's overall effectiveness. A continuous evaluation of the impact of these key messages is deemed crucial for refining communication strategies and ensuring a more resilient approach to the evolving challenges of the pandemic.

### 3.3. Cyber PR Dimensions

Referring to the Cyber PR Dimensions proposed by Holtz (2002), the Cyber PR strategies devised by *Diskominfo* Jepara during the pandemic are delineated in Table 4.

As shown in Table 4, various dimensions of Cyber PR have been addressed by *Diskominfo* Jepara. In terms of the strategic dimension, the establishment of a digital media center, engagement with media, and involvement of Key Opinion.

Table 3. Information themes and key messages

Information Theme	Key messages
<ul style="list-style-type: none"> <li>Covid-19 Data Updates</li> </ul>	<ul style="list-style-type: none"> <li>Accurate and Real-time Data: Ensuring the timely and accurate dissemination of Covid-19 data through various channels.</li> <li>Ease of Access: Facilitating easy access and comprehension for the public through websites and social media with messages characterized by simplicity.</li> <li>Comprehensive Information: Presenting comprehensive information emphasizing the health services provided by the Jepara Regency Government.</li> </ul>
<ul style="list-style-type: none"> <li>Campaign for Adherence to Health Protocols</li> </ul>	<ul style="list-style-type: none"> <li>Combating Hoaxes: Vigilantly countering any misinformation to maintain the integrity of disseminated data.</li> <li>Call to Adhere to Health Protocol Guidelines: Encouraging adherence to health protocols such as hand washing, mask usage, social distancing, avoiding crowds, reducing mobility, and compliance with the regulations of Community Activity Restrictions or <i>Pemberlakuan Pembatasan Kegiatan Masyarakat (PPKM)</i>.</li> <li>Fostering Responsibility and Collective Awareness: Cultivating a sense of responsibility and collective awareness among the public.</li> <li>Integrated Communication: Coordinating consistent and clear communication regarding updates and changes to health protocols to minimize confusion.</li> </ul>
<ul style="list-style-type: none"> <li>Covid-19 Vaccination Campaign</li> </ul>	<ul style="list-style-type: none"> <li>Persuasive Communication to Follow Covid-19 Vaccination: Employing persuasive communication techniques to encourage participation in Covid-19 vaccination.</li> <li>Information on the Benefits of Covid-19 Vaccine: Providing information on the benefits of the Covid-19 vaccine in preventing severe illness and contributing to community immunity.</li> <li>Vaccine Accessibility: Disseminating information on vaccine availability, distribution centers, and encouraging eligible individuals to promptly receive Covid-19 vaccination.</li> </ul>

Leaders (KOLs) demonstrated a comprehensive approach. On the other hand, in the integrated dimension, the integration of the official website, connection with health facilities, and the use of API for an integrated system reflected a forward-thinking approach. This is as explained by Participant G, Section of e-Government Development, Cryptography, and Information Security:

*"Our website is integrated, and we have an Application Programming Interface that allows the integration of all information. This integrated information system, for instance, enables data on the total number of patients and the availability of health services displayed on the Jepara corona Website to connect with health facilities or hospitals in Jepara." (Participant G, Section of e-Government Development, Cryptography, and Information Security, interview on November 7, 2022)*

Moving to the targeted dimension, the communication approach, utilizing visual elements and simplified language, aligned with effective public communication principles. In terms of the measurable dimension, the metrics provided for Covid-19 Data Updates lacked specificity, leaving room for ambiguity in the evaluation process. However, the absence of a clear evaluation system for the health protocol campaign could raise questions about its overall effectiveness. This is also explained by Participant A, Head of the Communication Department, who mentioned the absence of a detailed

measurement system related to the program with only a general program evaluation system in place, as explained below:

*"General program evaluations are usually conducted periodically every 6 months or once a year." (Participant A, Head of the Communication Department, Interview on November 7, 2022)*

### 3.4. Enhancing Quality of Public Information: Barriers and Enablers

Based on the quality indicators for public information developed by Wang and Strong (1996), the quality of public information produced and disseminated by *Diskominfo* Jepara during the Covid-19 pandemic can be examined in the following Table 5.

Table 5 illustrates the efforts made by *Diskominfo* Jepara in developing the quality of public information with various indicators. From an intrinsic perspective, it is evident that the emphasis was on maintaining information accuracy and timeliness. This is as explained by Participant C, Sub-Coordinator of Documentation and Publication:

*"We strive to maintain the timeliness of information, ensuring that each piece of information is supported by data and documentation. In the early days of Covid-19, we conducted outreach campaigns and regulated public places' opening hours with the authorities. The publications were*

Table 4. Cyber PR dimensions

Dimension	Covid-19 Data Updates	Information Theme Campaigns for Health Protocol Policies	Covid-19 Vaccination Campaigns
• Strategic	<ul style="list-style-type: none"> <li>• Development of a digital media center.</li> <li>• Media relations with mainstream and online media.</li> <li>• Utilization of Key Opinion Leaders for information dissemination.</li> </ul>	<ul style="list-style-type: none"> <li>• Development of a digital media center.</li> <li>• Media relations with mainstream and online media.</li> <li>• Collaboration with influencers.</li> <li>• Utilization of Key Opinion Leaders for information dissemination.</li> </ul>	<ul style="list-style-type: none"> <li>• Development of a digital media center.</li> <li>• Media relations with mainstream and online media.</li> <li>• Collaboration with influencers.</li> <li>• Utilization of Key Opinion Leaders for information dissemination.</li> </ul>
• Integrated	<ul style="list-style-type: none"> <li>• Utilization of the official Website corona.Jepara.go.id.</li> <li>• Connecting the website to health facility websites such as health centers and hospitals in the Jepara Regency.</li> <li>• Building an integrated system through the Application Programming Interface (API).</li> </ul>	<ul style="list-style-type: none"> <li>• Integration of the website and social media for the health protocol compliance campaign.</li> <li>• Integrating the Jepara.go.id Website to the corona.jepara.go.id Website.</li> </ul>	<ul style="list-style-type: none"> <li>• Integration of the website and social media for the Covid-19 vaccination campaign.</li> <li>• Integrating the Jepara.go.id Website to the corona.jepara.go.id Website.</li> </ul>
• Targeted	<ul style="list-style-type: none"> <li>• To reach the target audience, data presentation provided in the form of numbers and engaging illustrations.</li> <li>• The website's layout is simple and completed with icons, tables, and maps to facilitate exploration of information by the public.</li> </ul>	<ul style="list-style-type: none"> <li>• Digital campaigns supported by engaging images, photos, posters, and videos.</li> <li>• Packaging health protocol information in the form of public service advertisements.</li> <li>• Narratives and persuasion regarding health protocols are presented in language easily understood by all segments of the population.</li> </ul>	<ul style="list-style-type: none"> <li>• Digital campaigns supported by engaging images, photos, posters, and videos.</li> <li>• Packaging health protocol information in the form of public service advertisements.</li> <li>• Narratives and persuasion regarding Covid-19 vaccination are presented in language easily understood by all segments of the population.</li> </ul>
• Measurable	<ul style="list-style-type: none"> <li>• Updated information on Covid-19 on social media and the website can be flexibly accessed by the public.</li> <li>• Engagement obtained is not excessively high.</li> <li>• There is public saturation in receiving Covid-19 data.</li> <li>• Public interest in accessing the government's official portal related to Covid-19 is still low.</li> </ul>	<ul style="list-style-type: none"> <li>• There was no clear evaluation and measurement system regarding the effectiveness of digitally conveyed information.</li> <li>• Information engagement checks were conducted periodically without follow-up actions.</li> <li>• The effectiveness of the health protocol campaign has not been well measured.</li> </ul>	<ul style="list-style-type: none"> <li>• There was no clear evaluation and measurement system regarding the effectiveness of digitally conveyed information.</li> <li>• Covid-19 vaccination becomes a requirement for mobility activities, resulting in a high level of awareness to follow vaccination.</li> <li>• Vaccination achievement in the Jepara Regency as of January 3, 2022, was 71.1 % of the total target population of 922,450 people.</li> </ul>

shared across all social media channels." (Participant C, Sub-Coordinator of Documentation and Publication, Interview on October 31, 2022)

In terms of the contextual dimension, the analysis emphasized the contextualization of information and its dissemination. The integration of a hotline for detailed information and the mapping of zones demonstrated a systematic approach. Furthermore, the lack of quantitative

metrics made it challenging to assess the success of the hotline and the comprehension of zone classifications. This is as explained by Participant E, Social Media and Website Manager:

*"Every piece of information conveyed to the public is contextualized. For example, concerning Covid-19 vaccination, there is a request for specific information publication from the Health Department, hospitals, or relevant*

Table 5. The quality of public information dimensions

Dimension	Information Theme		
	Covid-19 Data Updates	Campaigns for Health Protocol Policies	Covid-19 Vaccination Campaigns
• Intrinsic	<ul style="list-style-type: none"> <li>• Endeavoring to maintain the timeliness and factual accuracy of information through the corona.Jepara.go.id Website connected to social media and hospitals and health centers.</li> </ul>	<ul style="list-style-type: none"> <li>• Safeguarding the truth and accuracy of data supported by photos and videos.</li> <li>• Digital campaigns supplemented with face-to-face campaigns using publicity vehicles in public places.</li> <li>• Offline campaign activities were then uploaded to social media for wider online dissemination.</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccination-related information was supported by accurate and objective data.</li> <li>• Information on vaccination schedules, vaccine availability, and invitations to get vaccinated were presented comprehensively on interconnected websites and social media.</li> </ul>
• Contextual	<ul style="list-style-type: none"> <li>• Information on the Website and social media was consistently updated.</li> <li>• The corona.jepara.go.id website has been created based on national standards, allowing the public to obtain information on hospital availability, bed numbers, positive patients, recoveries, or deaths, and the spread map down to the village level.</li> <li>• Information included a map showing the classification of zones based on the comparison of data between positive patients and the population of districts or villages.</li> <li>• There was a hotline for people who needed more detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>• Information urging compliance with health protocols was tailored to the context and conditions of the community.</li> <li>• Packaging health protocol information in the form of videos and posters published on social media, the Jepara.go.id website, and billboards (outdoor media) to suit the target audience.</li> </ul>	<ul style="list-style-type: none"> <li>• Messages about the implementation, benefits, schedule, and achievements of vaccination were presented in the form of news, social media posts, and flyers/posters, in line with the context and target audience.</li> <li>• There was a public complaint service related to Covid-19 vaccination.</li> <li>• There was in-depth information in website news and media news materials according to journalistic principles with the completeness of the 5W+1H verified before publishing.</li> </ul>
• Representational	<ul style="list-style-type: none"> <li>• Information on the website, social media, and other media uses simple language, easy to understand, complemented by maps, numerical graphs, and tables.</li> <li>• Using persuasive language inserted in data update presentations.</li> </ul>	<ul style="list-style-type: none"> <li>• Using persuasive and friendly language to the general public, containing familiar greetings.</li> <li>• Using specific hashtags to increase engagement on social media such as #jagajarak#pakaimaskermu.</li> <li>• Language used on social media was more casual and informal, while information in article news on the website and mass media was more formal.</li> <li>• Information presentation is displayed simply and directly to the message to be conveyed.</li> </ul>	<ul style="list-style-type: none"> <li>• Public information related to vaccination was presented in a language familiar to the audience, and easy to understand.</li> <li>• Using persuasive language such as: "Let's get vaccinated".</li> <li>• Using familiar greetings such as "kang mas, mbakyu", and specific hashtags on social media such as #vaksinasiJepara.</li> <li>• Important information was delivered casually, sometimes interspersed with rhyming jokes.</li> <li>• Information presentations included to-the-point content, such as vaccination schedule information.</li> <li>• Displaying clear and responsible information, for example, with the presence of the Regent's photo showing the regional leader taking responsibility for vaccination, also setting an example that he has already received the vaccination.</li> </ul>
• Accessibility	<ul style="list-style-type: none"> <li>• Information is updated and easily accessible through the corona.jepara.go.id Website and social media such as Instagram, Twitter, and Facebook.</li> </ul>	<ul style="list-style-type: none"> <li>• Calls to comply with health protocols can be accessed via social media Twitter @Jeparakabgoid, Instagram @pemkabJepara, Facebook Jepara.go.id, YouTube @PemerintahKabupatenJepara, and Website jepara.go.id.</li> <li>• Information was also disseminated through conventional media such as radio and newspapers.</li> <li>• Mobile public announcements were carried out using vehicles informing health protocol appeals in public places.</li> </ul>	<ul style="list-style-type: none"> <li>• Calls to comply with Covid-19 Vaccination can be accessed via social media Twitter @Jeparakabgoid, Instagram @pemkabJepara, Facebook Jepara.go.id, YouTube @PemerintahKabupatenJepara, and Website jepara.go.id.</li> <li>• Information was also disseminated through conventional media such as radio and newspapers.</li> <li>• Mobile public announcements were carried out using vehicles informing Covid-19 Vaccination in public places.</li> </ul>

departments. Following our leadership's instructions, the Communication Department will discuss the message's concept, such as the design of the flyer or poster. Once finalized, it will be consulted with the leadership, and upon approval, we proceed with the publication." (Participant E, Social Media and Website Manager, Interview on November 3, 2022)

Moving to the representational dimension, focused on language use and engagement strategies, the analysis correctly identified the use of persuasive language, hashtags, and a casual tone on social media. However, it still lacked an in-depth exploration of how these linguistic choices impacted audience engagement and understanding.

Similarly, in the accessibility dimension, which highlighted the channels through which information was disseminated, the analysis appropriately identified various social media platforms and conventional media. However, it lacked a comprehensive examination of the reach and effectiveness of these channels. Here is the explanation from Participant D, Sub-Coordinator of Mass Media:

"In addition to social media, we disseminate information related to vaccination and health protocols through print and electronic media, such as newspapers, tabloids, TV, and radio. We also utilize outdoor media such as billboards or sticker distribution, as well as direct publication using mobile outreach. We maximize all media to ensure an easy access for the community" (Participant D, Sub-Coordinator of Mass Media, Interview on November 3, 2022)

As for the barriers and enablers in the Cyber PR strategy of *Diskominfo* Jepara in developing quality public information during the Covid-19 pandemic, they can be examined in the following Table 6.

From Table 6, various barriers posed challenges for *Diskominfo* Jepara in developing Cyber PR strategies to enhance the quality of public information during the Covid-19 pandemic. The continuous publication of Covid-19 data on the corona.jepara.go.id Website encountered technical challenges when the server experienced downtime, impeding information dissemination. This challenge was compounded by the community's limited technological literacy, lack of internet access, and budget constraints for online media advertising. This is explained by Participant F, Content Compiler, and Publication:

"Digital information can only be accessed by people who have smartphones and internet access. To overcome challenges related to digital media, we also continue to use conventional media in health protocol and vaccination campaigns, such as radio, sticker distribution, billboards, and mobile publicity. Documentation of these activities is also uploaded on social media." (Participant F, Content Compiler, and Publication, Interview on November 3, 2022).

On the other hand, several enabler factors supported efforts in implementing this strategy. The corona.jepara.go.id Website played a pivotal role as a data center, ensuring a high level of data availability through careful server selection. The Department of Communication and Information took a proactive approach by implementing Disaster Recovery Plan (DRP) and Disaster Recovery Center (DRC) systems to mitigate server downtime. Despite challenges, the Department utilized conventional media and mobile publicity campaigns to reach residents without internet access or smartphones. The focus was on maximizing information dissemination through

official channels, given the constraints on extending online media advertising.

Table 6. Barriers and enablers in developing quality public information during the Covid-19 pandemic

Barriers / Enablers	Explanations
• Barriers	<ul style="list-style-type: none"> <li>• Server Downtime: The continuous publication of Covid-19 data on the corona.jepara.go.id Website faced hindrances when the server experienced downtime. Automatic unavailability during server downtimes prevented public access, impeding the timely release of new information. Such downtimes may result from cyber-attacks aimed at breaching the system or disruptions in internet supply.</li> <li>• Limited Internet Access: Certain segments of the population lacked internet access or smartphones, limiting their ability to retrieve critical information.</li> <li>• Technical Obstacles: Technical obstacles, such as signal downtime, posed challenges to effective information dissemination.</li> <li>• Technological Proficiency: A notable portion of Jepara's residents lacked technological proficiency, being unfamiliar with internet technology and smartphone usage.</li> <li>• Budget Constraints: Budget constraints presented obstacles to the expansion of online media advertising efforts.</li> </ul>
• Enablers	<ul style="list-style-type: none"> <li>• Resilient Data Center Service Server: The corona.jepara.go.id Website relied on a data center service server with a maximum error probability of 1%, ensuring an annual data availability rate of 99%.</li> <li>• Implementation of Disaster Recovery Plan (DRP) and Disaster Recovery Center (DRC): The Information Technology Division of the Department of Communication and Information has established a DRP and DRC to mitigate server downtime issues. This system automatically redirected to a backup system during main system failures, minimizing downtime.</li> <li>• Support from Conventional Media for Widening Information Dissemination: In addition to developing information through digital media, the Department leveraged conventional media channels, such as radio broadcasts, sticker distribution, billboards, and mobile publicity campaigns, to educate the public about health protocols. These campaigns were documented and shared on social media, extending their reach.</li> <li>• Strategic Information Dissemination: Confronting limitations in online media advertising, the Department aimed to amplify information dissemination through official channels managed on behalf of Jepara Regency. This strategic emphasis sought to optimize the impact of available resources for effective public</li> </ul>

### 3.5. Public perception

Interviews with community representatives knowledgeable about various information and the implementation of *Diskominfo* Jepara's Cyber PR strategy revealed both positive and negative assessments. Community representatives provided positive feedback regarding the digital data updates. They appreciated the continuous updates on the corona.jepara.go.id Website, expressing satisfaction with the consistently refreshed information. The depth and

comprehensiveness of Covid-19 data on the website received commendation. The strategic use of simple language, engaging posters, and an accessible website design has enhanced the effectiveness of information delivery. Health protocol campaigns were considered comprehensive in providing detailed information on protocols and PPKM schedules. Positive feedback was received for the vaccination campaigns, which offered thorough information on vaccines and vaccination schedules. The implementation of clear language, appealing posters, and an accessible website significantly contributed to positive community perceptions. Overall, the community felt secure and found it easy to access information through various channels. Here are excerpts from some positive responses from the community:

*"In general, we respond positively to the online information about Covid-19. This information clarifies what and how we are facing the Covid-19 pandemic."* (Participant H, Community Member, interview on November 18, 2022)

*"Online media is indeed helpful and effective, but for people in rural areas, information is obtained from community leaders, especially regarding vaccination. The use of media also needs attention. In my area, there is more Facebook usage, while information is more accessible through Instagram. Websites are also rarely followed; there is more reliance on social media. Although, in reality, information through websites is more credible than social media. Social media is still mixed with hoaxes and other content."* (Participant I, Interview on November 19, 2022)

On the negative side, some perceptions included a perceived lack of depth in information on victim data on social media. Health protocol campaigns on social media were considered monotonous and lacking in depth. Vaccination information on social media was seen as superficial, primarily presented in pamphlet form. The organization of social media feeds, especially on Instagram, faced criticism for being disorganized and unappealing. Here is a quote from one community member:

*"The information about Covid-19 victim data is not conveyed extensively. Additionally, the depth of information needs improvement because much of the provided information is still too general, such as regarding Covid-19 vaccination, which needs more detailed information."* (Participant I, Community Member, interview on November 19, 2022)

Overall, the research results indicated the implementation of the Cyber PR strategy developed by *Diskominfo* Jepara during the Covid-19 pandemic in enhancing the quality of public information. These findings aligned with and reinforced several previous research outcomes. This study complements the research conducted by Hidayat, Susilo, Monica, & Garcia (2021), which examined the strategies of the Sampang Regency government in implementing Cyber PR through various social media platforms such as Facebook, Twitter, and Instagram. This research introduces a novelty related to the dimensions of Cyber PR and the quality of public information, as developed by Holtz, S. (2002) and Wang and Strong (1996). This current research extends the understanding of Cyber PR application by demonstrating that government public relations strategies during the pandemic can encompass media relations, engage Key Opinion Leaders (KOLs), and collaborate with influencers for effective communication. Moreover, this research sheds light on the Jepara Regency Government's efforts to maintain

the quality of public information during the pandemic.

Furthermore, the results of this research complemented the study conducted by Damayanti & Ningsih (2020) regarding Digital Government Public Relations in Conveying Educational Information on Covid-19 Prevention in Indonesia. Similarly, it aligned with the study conducted by Pratiwi and Dunan (2021) on the Depok City Government Public Relations Communication Strategy in Managing Covid-19 Information during the Pandemic on Instagram. This research provides a more comprehensive perspective on the Cyber PR strategy by utilizing various platforms on social media, while also not neglecting conventional media as a supporting element.

The outcomes of this study reinforce the assertions of PR experts who emphasize that the evolution of mobile communication technologies necessitates a reassessment and broadening of PR strategies. Traditional methods designed for stationary devices are insufficient, prompting the adoption of novel approaches, such as conceiving Cyber-PR as a dynamic communicative "touch" (Galloway, 2005). Furthermore, the evolution of digital technology significantly reshapes various facets of the PR landscape, influencing industry dynamics, organizational identity, and the definitions and roles within the profession. The emergence of information communication technology (ICT) and digital, social, and mobile (DSM) media transforms PR strategies, prompting a reevaluation of engagement norms with diverse audiences (Zimand-Sheiner & Lahav, 2022; Vercic et al., 2015). This phenomenon is evident in the practical realm of PR in local government, especially in small cities like Jepara.

#### 4. Conclusion

In conclusion, *Diskominfo* Jepara developed Cyber PR strategies to enhance the quality of public information during the Covid-19 pandemic, grounded in a thorough analysis of the situational context and established communication objectives. The Cyber PR strategies implemented encompassed the establishment of a comprehensive digital media center for information development, active engagement in media relations with both mainstream and online outlets, cultivation of collaborations with influencers, and the utilization of Key Opinion Leaders (KOLs) for effective information dissemination. These strategies have successfully addressed the strategic, integrated, and targeted dimension; however, the measurable dimension still remained an area for further improvement.

From the perspective of the quality of public information, *Diskominfo* Jepara developed content that met the intrinsic, contextual, representational, and accessibility criteria. Nevertheless, there is a space for enhancement in the depth of information, indicating an aspect that requires further development. Overall, the initiatives undertaken by *Diskominfo* Jepara serve as a valuable contribution to the field of Cyber PR within the context of local government, demonstrating a commitment to deliver high-quality public information during challenging times such as the Covid-19 pandemic.

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