Ekspresi dan Persepsi: Jurnal Ilmu Komunikasi
Vol. 7, No. 3, September 2024, pp. 649 - 663
https://doi.org/10.33822/jep.v7i3.6215

Communication Effectiveness Model for Vaccination Participation in Semarang City

Arfika Pertiwi Putri[1], Taruna Budiono[2], Agus Triyomo[3]

[1,2,3]Faculty of Computer Science, Dian Nuswantoro University, Semarang, Indonesia

e-mail: arfika.pertiwi.putri@gmail.com[1*]; taruna.budiono@dsn.dinus.ac.id[2]; agustriyono7@gmail.com[3]
*Corresponding author

ABSTRACT :
The vaccination program is an important effort to combat the pandemic, starting from the initial doses of vaccines to booster shots. However, the program has not yet achieved its intended target. In August, the booster vaccination coverage in Semarang City was only 53%, falling short of the desired 80% (KompasTV, 2022). Therefore, there is a pressing need for persuasive measures to enhance knowledge, awareness, and decision-making regarding vaccination. This study aims to identify an effective model of vaccine persuasion for public communication in Semarang City. It is an exploratory study that applies the Elaboration Likelihood Model (ELM) theory and the diffusion of innovations, involving a sample of 100 respondents. The collected data was analyzed using PLS 3.0. The results reveal that persuasion using different lines of thought (central route and peripheral route) leads to distinct stages of innovation diffusion. Both new media and traditional media are considered suitable platforms for vaccine persuasion, provided they incorporate key elements such as high-quality information, credible sources, accessibility, well-structured messages, and interactivity.

ARTICLE HISTORY
Submitted: 5 July 2023
Revised: 24 September 2023
Accepted: 30 September 2024

KEYWORDS
communication model, covid19, ELM, persuasion, vaccine

INTRODUCTION

Innovation diffusion theory explains how new technological innovations are adopted and spread through different stages, starting from knowledge of the innovation to its implementation and confirmation (Rogers, 1995). In this theory, diffusion refers to the communication of the innovation through specific channels over time among members of a social system. When it comes to voluntary adoption decisions, the diffusion process is often accelerated when influential members of the social system decide to adopt the innovation and their decisions are communicated to others, who then follow suit. Diffusion, therefore, is a

E-ISSN: 2656-050X, Website: https://ejournal.upnvj.ac.id/JEP

social process that occurs among people as they learn about an innovation, such as a new evidence-based approach to expanding or improving health services (Dearing & Cox, 2018).

The government has taken the initiative to reduce the transmission of COVID-19 in Indonesia through the COVID-19 vaccine. Since the implementation of the Community Activities Restrictions Enforcement (PPKM) in July 2021, the government has set a target of administering two million vaccine doses per day. The COVID-19 vaccine offers several benefits, including stimulating the immune system, reducing the risk of transmission, mitigating the severity of the virus's effects, and achieving herd immunity (Kemkes, 2021). As of January 2022, the Minister of Health, Budi Gunadi Sadikin, reported that 280 million doses of the COVID-19 vaccine had been administered, with an average coverage of 70% across various provinces in Indonesia (Biro Pers, Media, 2022). Various methods were used to campaign for health protocols during the COVID-19 pandemic. For example, the video "Wash Your Hands Correctly" is considered effective in changing the health behavior of washing the hands of followers of the TikTok account @Alodokter.ID, however only reaches the attitude stage (Al Hanif et al., 2023). A research study conducted in Mungka District, West Sumatra, on the 'Strategic Management of the Campaign in Handling the COVID-19 Vaccine Polemic' revealed that the district had effectively carried out all stages of strategic management in the campaign. These stages included raising awareness, formulating strategies, implementing the campaign, and monitoring and evaluating its effectiveness. This approach proved effective in increasing citizen participation in vaccination efforts (Zebua* et al., 2023). In another research, public sentiment plays a significant role in steering the handling of matters that exhibit a favorable correlation and considerable influence. Essentially, the notion of public opinion acts as a communal gauge for gauging the current state of affairs concerning prevalent issues (Turpyn & Sunuantari, 2022).

Semarang, a major city in Indonesia, has reported high vaccination achievements. The first dose of the vaccine has exceeded 100%, while the second dose stands at 70% (Alif Nazzala R, 2021). However, several regions in Central Java have not yet reached adequate vaccination coverage for the first or second dose. Currently, there are still seven areas in Central Java where the vaccination rate is below 50%, including Banjarnegara (40.54%), Tegal (44.09%), Purbalingga (44.56%), Pemalang (46.79%), Wonosobo (47.20%), Jepara (47.21%), and Batang (48.84%) (Bidang IKP, n.d.). Furthermore, despite the earlier achievement of surpassing the 70% target for the second vaccine dose in Semarang, the booster vaccine coverage in the city remains relatively low, around 14.26% (Setiawan, 2022). The progress of vaccination activities in Semarang and other areas faces various challenges, including the presence of fake news, negative rumors, and anti-vaccine groups. Reports from WHO, UNICEF, and the Ministry of Health of the Republic of Indonesia have highlighted concerns and the emergence of fake news and disinformation, which can spread rapidly and excessively, impacting public concern (Kementerian Kesehatan RI, 2020). Similar issues have been observed in previous immunization programs, such as the Measles Rubella (MR) and Diphtheria Outbreak Response on Immunization (ORI) campaigns in 2016-2017, which faced opposition from anti-vaccine groups. The global anti-vaccine movement and disagreements surrounding vaccines have also

influenced Indonesia, leading to the emergence of a vaccine education communication model involving Key Opinion Leaders, including religious leaders with expertise in health sciences (Nurlaela & Hudrasyah, 2013). Regarding the COVID-19 vaccine, anti-vaccine sentiment can be attributed to various factors. This includes low-educated individuals who believe in negative vaccine-related issues, uncertainty about vaccine side effects, fear of injections, lack of information about vaccines, the belief that vaccines are unnecessary for preventing COVID-19, and individuals who deny the existence of COVID-19. Factors influencing anti-vaccines are influencers on social media and distrust of the government in handling the crisis. The confusion in information regarding COVID-19 and COVID-19 vaccination became an initial gap in public distrust. Messages on social media are a confirmation of the initial belief that vaccines are dangerous and are a form of conspiracy (Diego, 2023).

Persuasion is a process that involves the formation of attitudes through message processing. Several criteria need to be met for a message to be considered persuasive. If one or more of these criteria are not fulfilled, then the process cannot be classified as persuasion (Perbawaningsih, 2012). The Central Information Commission of the Republic of Indonesia, in collaboration with the COVID-19 Task Force, has implemented various communication strategies to address the COVID-19 situation in 2021. These strategies encompass content strategy and media strategy. The government has employed media strategies, including owned media, earned media, and paid media, with the goal of achieving the following objectives: (1) enhancing public compliance with health protocols, (2) providing public education about the safety and effectiveness of vaccinations, and encouraging people to be ready for vaccination, and (3) convincing the public about the significance of adhering to health protocols and fostering willingness to be vaccinated in order to restore public health and bring an end to the pandemic (Komisi Informasi Pusat, 2020). The City Health Office (DKK) of Semarang City is also actively engaging in various communication efforts to increase public participation in vaccination. These efforts involve traditional media, social media platforms, podcasts, as well as door-to-door outreach, among others.

The elaboration likelihood model (ELM), developed by Petty and Cacioppo in 1986, offers insights into the formation of attitudes, persuasion, and behavior change through the processing of external information. ELM explains that these changes can occur through either cognitive effort, involving active information processing, or cue-based assessments. Essentially, individuals react differently to information presented to them based on the level of cognitive effort they invest in processing that information. The degree of cognitive elaboration has a significant impact on the effectiveness of persuasion (Yoo et al., 2017). ELM serves as a comprehensive framework for understanding the factors that influence attitude change and the resulting consequences. It outlines how variables such as the source, message, receiver, channel, and context can all affect attitudes (Petty, 1997). In the Elaboration Likelihood Model (ELM), individuals who receive information differ in their abilities, personal interests, and motivation to process and understand the information. These factors play a crucial role in determining the processing routes individuals choose to take, which are referred to as elaboration possibilities. Interestingly, the extent of elaboration can vary even within the

same individual depending on factors such as the characteristics of the information presented and temporal cognitive availability. This availability can be influenced by factors like problem involvement, temporal preoccupation, or self-efficacy in a particular subject (Yoo et al., 2017). Another factor that can impact individuals' judgment in these situations is the number of arguments presented or even superficial characteristics of the message, such as its layout or the use of attractive colors. Depending on how individuals process the message, the strength of the arguments may or may not determine the persuasion outcome. Only when people are motivated and capable of evaluating arguments systematically do the quality of those arguments influence their judgment regarding the validity of claims (Eemeren et al., 2003).

Persuasion is the process of changing or influencing individual attitudes through the transmission of messages. These messages can take the form of either verbal or nonverbal communication. They can be conveyed through interpersonal interactions, mass media channels, or the Internet (Littlejohn & Foss, 2012). Since January 2021, the government has been actively working towards achieving widespread vaccination to attain herd immunity quickly. However, along the innovation diffusion curve, there have been instances of setbacks and various obstacles encountered during the implementation of the vaccination campaign. One significant challenge is the prevalence of fake news or hoaxes surrounding vaccines. Furthermore, an anti-vaccine movement has emerged, leading to vaccine hesitancy among the population. Concerns and various perceptions regarding vaccines have given rise to disinformation and an infodemic, which can negatively impact public vaccine participation. Additionally, certain opinion leaders have adopted a critical stance towards vaccines. The critical narratives employed by these opinion leaders suggest an ideological interest in vaccine policy, using terms like "vaccine business." Moreover, manipulative social practices, such as creating "vaccine drama," have also been observed (Sulistyanto & Jamil, 2021).

The Central Information Commission of the Republic of Indonesia has developed and implemented a series of communication strategies aimed at increasing public participation in the COVID-19 vaccination campaign. After running for one year, it has been reported that the average vaccination coverage in Indonesia has reached 70%. However, several regions in Indonesia still have not achieved this level of vaccination coverage. In Central Java, for example, there are areas where the first-dose vaccination rate is still below 50%. Additionally, in the city of Semarang, the coverage of booster vaccines is projected to reach only 14.26% by 2022. The extent of individual involvement in the Elaboration Likelihood Model (ELM) process influences the processing route that individuals choose. Health, being closely related to oneself, generally elicits high individual involvement. However, despite this, there are still individuals who refuse to receive the vaccine.

RESEARCH METHOD

This research study focuses on the population of the city of Semarang in Central Java. The study used a non-probability sampling method, specifically quota sampling, with a sample size of 100 individuals. The participants were selected based on their residency in Semarang. To collect data, the researchers used a Google form and distributed it to confirmed residents

of Semarang. The researchers employed structural equation modeling (SEM), which considers measurement error, a crucial factor across various disciplines. Using existing datasets, the variance-based SEM was utilized to develop a theory explaining the dependent variable variance. The data analysis process using SEM-PLS involved two steps. Firstly, the validity and reliability of the measuring instrument were examined based on the collected data (Santosa, 2018). Once these criteria were met, the data was analyzed according to the proposed hypotheses. In SEM-PLS, the first stage is referred to as testing the measurement model or the outer model, while the second stage involves testing the structural or inner model. The limitation of this research is that it does not differentiate between persuasion strategies in dose 1, 2, or booster vaccines.

Variable	Dimensions	Indicator	Scale
Information Exposure, Central and Peripherals Route (Yoo et al., 2017)	Central Route	Getting vaccinated due to their own will	Interval
	Peripheral Route	Getting vaccinated due to external factors	Interval
	Information Quality	Accurate information	Interval
		Easy-to-understand information	Interval
		Timely information	Interval
		Comprehensive information	Interval
		Relevant information based on needs	Interval
	Source Credibility	Trustworthy information	Interval
		Information provided by experts	Interval
		Based on research	Interval
	Interactivity	Easy to ask questions online and offline	Interval
		Clear and polite responses from an admin	Interval
	Accessibility	Availability of information	Interval
		Vaccination locations	Interval
		Registering through http://victori.semarangkota.go.id	Interval
Communication media (Putri, 2021)	Two-step flow communications	Opinion leaders from religious figures	Interval
		Opinion leaders from public officials	Interval
	Peer group	Family, friends	Interval
	New media	Advertisements	Interval
		Infographics	Interval
		www.covid19.go.id Website	Interval

	Traditional media	TV, radio	Interval
	PR Activity	Publicity	Interval
		Press conferences	Interval
	Setting agenda	Government policies	Interval
	Message Structure	Messages about registration procedures	Interval
		Messages about vaccine types	Interval
		Messages about health protocols	Interval
		Messages about restoring national health resilience	Interval
Innovation Diffusion (Rogers, 1964)	Knowledge	Knowledge about different types of vaccines	Interval
	Persuasion	Obtaining vaccine information from media and post-vaccination experiences	Interval
	Adoption	Getting the first vaccine dose until the booster shot	Interval
		Getting vaccinated as a preventive measure	Interval
	Rejection	Delaying vaccination due to concerns about	Interval
		its potential to cause death	
		Delaying vaccination due to payment-related issues	Interval
		Delaying vaccination due to peer influence	Interval
		Rejecting vaccination due to chip conspiracy theories	Interval
	Implementation	Benefiting from vaccines	Interval
		Easily accessing vaccines	Interval
		Desire to consistently follow government-recommended vaccinations	Interval

Table 1. Research Variable

Source: (Researcher's doc)

RESULTS AND DISCUSSION

Public Communications Fit Model

The researchers utilized smart PLS for calculations and modeling in this study. To assess discriminant validity, they compared the root value of a latent variable's AVE (Average Variance

Extracted) with the correlation between that latent variable and all other latent variables. Two models were examined in this study: the central route (CT) and the peripheral route (PR). The reliability test was conducted to determine whether the indicators used for all research variables effectively formed a latent variable. An indicator was considered reliable if its outer loading value exceeded 0.70. Values between 0.50 and 0.70 were still acceptable, while those below 0.50 were excluded from the analysis (Supriyati, 2021). Upon inspection, it was found that some indicators fell below 0.50 and had to be removed, while others remained above 0.70. The results of the construct reliability test for each variable are presented in the table below:

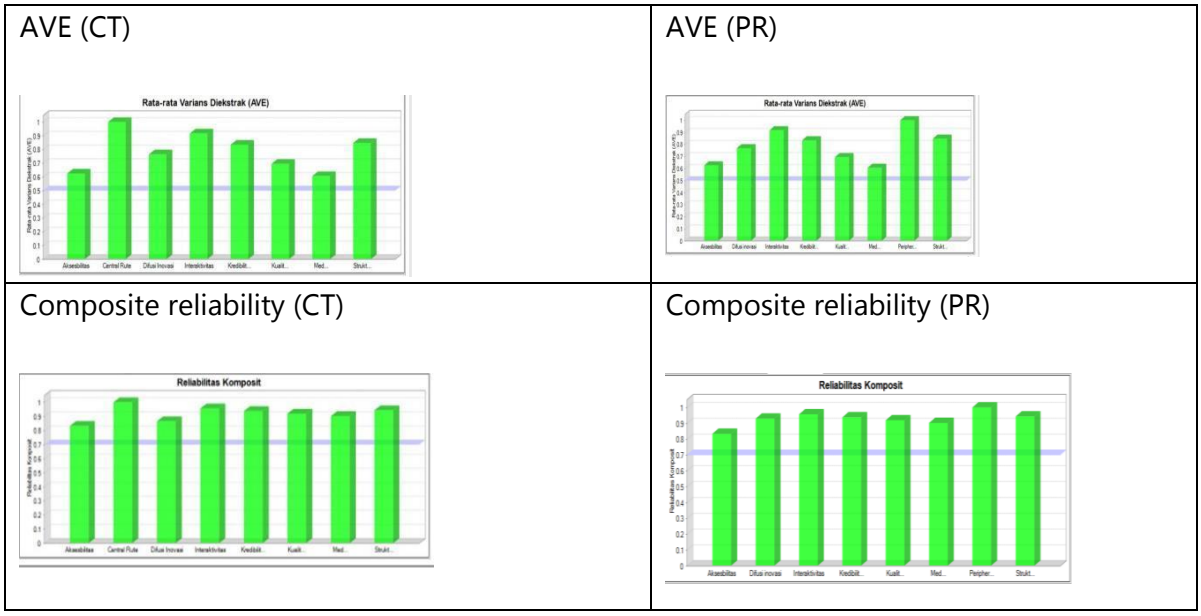


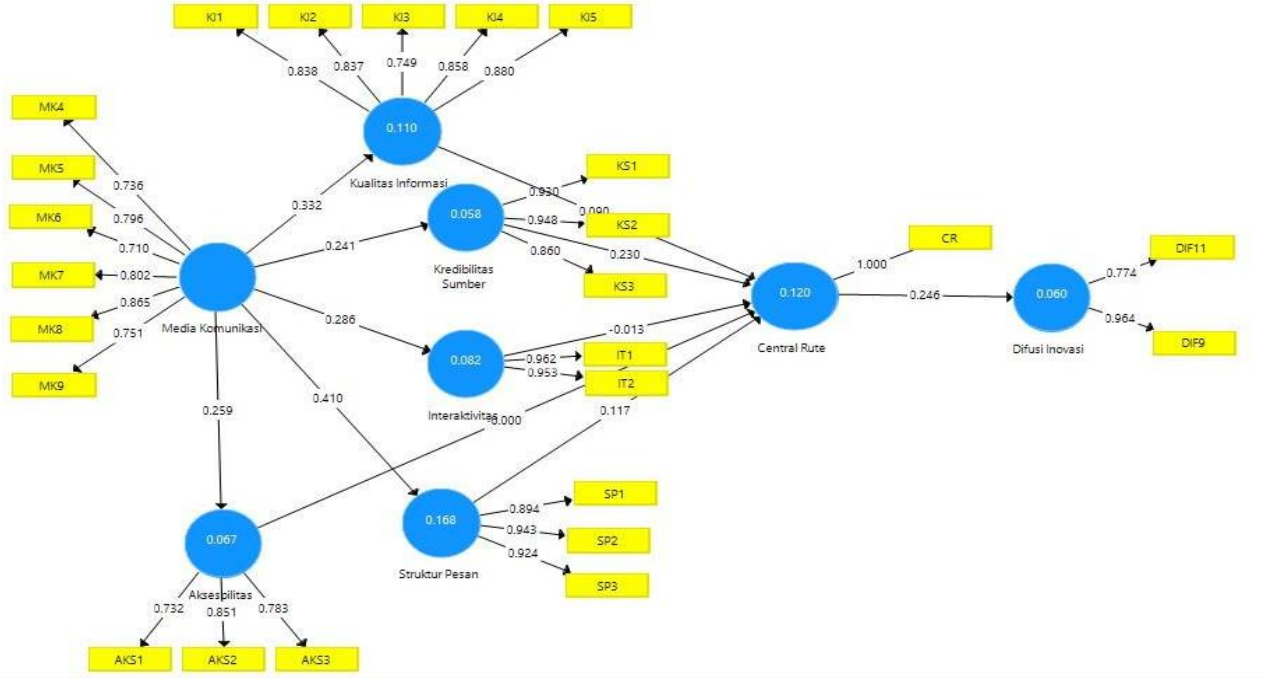
Figure 1. AVE and Composite Reliability Graphs

Source: (Researcher's doc)

Variable	AVE (CT)	AVE (PR)	Composite Reliability (CT)	Composite Reliability (PR)
Accessibility	0,624	0,625	0,832	0,834
Central rute	1,000	1,000	1,000	1,000
Innovation diffusion	0,764	0,768	0,865	0,930
Interactivity	0,916	0,917	0,956	0,956
Source credibility	0,834	0,834	0,938	0,938
Information quality	0,695	0,693	0,919	0,918
Communication media	0,606	0,605	0,902	0,902
Message structure	0,847	0,847	0,943	0,943

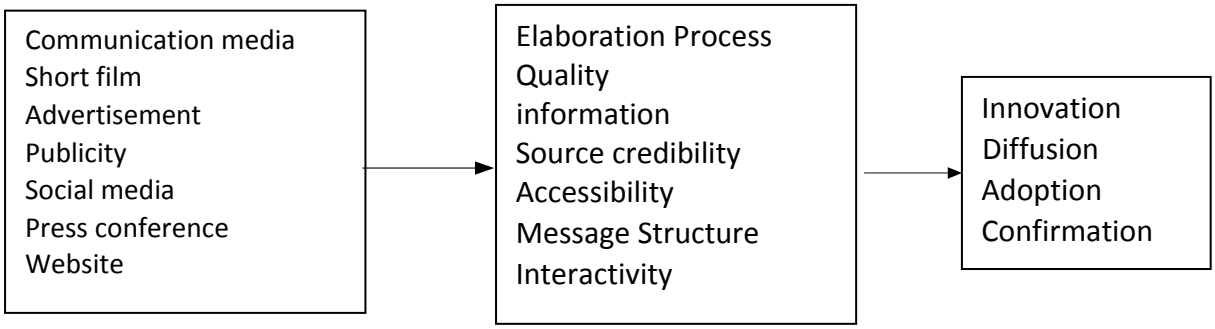
Table 2. AVE and Composite Reliability

Source: (Researcher's doc)



Source: (Researcher's personal doc)

Figure 2. PLS Model of Vaccination Persuasion via Central Route



Source: Researcher's doc

Figure 3. Fit Model of Vaccination Persuasion via Peripheral Route

In this study, each indicator has an outer loading value ranging from 0.6 to 0.7, indicating an acceptable level of fit for the model. Additionally, the minimum Average Variance Extracted (AVE) value is 0.5, indicating that the construct explains more than half of the variance based on the indicators.

New Media Persuasion, Public Relations Activities As Fit Media Communications

The vaccine persuasion fit model used in the Semarang City case study reveals that both the central route and the peripheral routes employ the same persuasion media, namely new media and public relations (PR) activities. In this model (figure 2), new media encompasses various channels such as social media platforms, the website www.covid19.go.id, and short

films distributed via social media. The sample participants had easy access to social media for information regarding COVID-19 developments, especially as people spent a significant amount of time on their phones during the pandemic. The Semarang City Health Office actively utilizes social media accounts including Twitter, Instagram, and YouTube, with a considerable number of followers and subscribers. For instance, as of August 2022, the @dkkSemarang Twitter account had 9,492 followers, Instagram had 88K followers, and YouTube had 1.17K subscribers. During the screening of a short film, both Semarang residents and the governor of Central Java, Ganjar Pranowo, participated and shared the film on social media. The short film effectively conveyed important messages and confirmed vital information related to the pandemic, ensuring that citizens had a clear understanding. Additionally, citizens could access vaccination information through the social media channels of the Indonesian Ministry of Health.

Source: (Twitter @KemenkesRI)

Figure 4. Header Twitter @KemenkesRI

The media employed in the vaccine persuasion model also utilizes various PR activities, including press conferences, advertisements, and publicity. This can be seen in Figure 2. At the onset of the pandemic, the Indonesian Ministry of Health conducted daily press conferences to provide updates on developments from the initial detection of the virus to the progress of vaccines. These press conferences were broadcasted through both traditional media (TV) and new media platforms (YouTube), ensuring accessibility for the Indonesian population, including residents of Semarang City. Press conferences are an effective medium for swiftly disseminating information, especially during a pandemic characterized by uncertainty and the need for timely updates. Publicity materials published in the media were also amplified through social media platforms such as Twitter. Twitter conversations surrounding COVID-19 have gained significant traction, spanning topics ranging from the outbreak itself to discussions on vaccinations. This rapid information exchange on Twitter allows for the swift dissemination of updates. Notably, some notable trends have emerged, such as the hashtag #vaccinerecoveringthecountry, which gained prominence in October 2021.

Another media component in this model is advertising. Utilizing public service advertisements proves to be an effective means of disseminating information with simultaneous storytelling elements to enhance awareness and knowledge. Several public service advertisements focused on promoting COVID-19 vaccination have been created. For

instance, the Ministry of Health of the Republic of Indonesia released an advertisement titled *"Ayo Cegah Penyebaran COVID-19 dengan 5M dan Vaksinasi!"* (Let's Prevent the Spread of COVID-19 with 5M and Vaccination!), which garnered 22,000 views on YouTube. Additionally, the Ministry of Communication and Informatics produced a comedic public service advertisement featuring the character Cak Lontong titled *"Vaksinasi Melatih Tubuh Kenal, Lawan dan Kebal* - KPCPEN KOMINFO - COVID-19 Vaccine," which accumulated 23,000 views. UNICEF Indonesia also contributed with their advertisement titled "Ayo Vaksinasi!" (Let's Vaccinate!), which was viewed 928 times. Apart from government ministries, other institutions, including media outlets like Bisnis.com, created vaccine-related advertisements such as "Masker dan Vaksin - Dua Pasangan Sejoli" (Masks and Vaccines - A Perfect Match). These advertisements varied in style, ranging from comedy to formal informative approaches, all aiming to persuade and raise awareness about vaccines. Comedy, in particular, was utilized as a delivery method, leveraging popular figures recognized by the public to effectively disseminate vaccination information.

Following the press conferences, residents engaged with the news published across various media platforms to obtain more detailed information. Publicity plays a crucial role in vaccine persuasion media, as it enables citizens to distinguish between fake news and factual information, serving as a guide when making decisions about vaccination. Both traditional and new media outlets are essential in this process, as they confirm or debunk issues, including misinformation surrounding vaccines.

This vaccine persuasion model examines different communication media in the context of Pro-vaccine versus religious leaders who possess expertise in health sciences. Notably, in this model, key opinion leaders (KOL), including religious leaders and public officials, are no longer considered crucial elements. Previous research often included opinion leaders who expressed critical views driven by ideological interests regarding vaccine policies, such as the notion of a "vaccine business." Additionally, manipulative social practices like "vaccine drama" were observed. However, in this communication model, opinion leaders are not deemed suitable as communication tools for promoting COVID-19 vaccination.

Furthermore, the influence of family and friends, also known as peer groups, is not deemed as effective in persuading individuals to get vaccinated in the city of Semarang. Peer groups are categorized into three levels: larger groups, close relations, and the influence of social media. Within the Semarang City vaccination communication fit model, the influence of peer groups (friends) is more significant when it comes to social media. This can be seen in Figure 2. Social media platforms have a profound impact on an individual's decision-making process. The proliferation of social media has facilitated consistent peer pressure, playing an important role in various aspects of life, including COVID-19 vaccination. Although peer groups are not considered as a primary communication medium in this model, there may be instances where individuals experience delays in their decision to get vaccinated due to the fact that their relatives or neighbors have not received the vaccine. Thus, the presence of multilevel persuasion communication becomes necessary. Multilevel persuasion involves continuous efforts to diffuse vaccine-related innovations. While peer groups may not be the

primary communication tool for vaccine persuasion, they still hold influence in the decision-making process. There is an allegation that peer groups may not have a significant effect on vaccine persuasion, but their influence may be observed when it comes to rejecting or delaying vaccination.

Quality Messages, Spokesperson Credibility, Two-Way Communications, and Call To Action As Elements Of Message Elaboration

The fit communication model (figure 2) highlights several essential elements in vaccine persuasion messages through the media. The first element is the quality of the message, which encompasses accuracy and reliability. The persuasion message must provide correct and trustworthy information. Having the right information about vaccines is key to the success of persuasion. Moreover, a quality message should be comprehensive, meeting the needs of the residents. It should be easy to understand and delivered promptly. Considering the critical state of the pandemic at the time, the messages conveyed were aligned with the prevailing conditions. This heightened state of alertness prompted individuals to seek more information about vaccines. The messages were communicated in an easily understandable language. Although the topic pertained to health discussions, the information was conveyed in a simple and accessible manner.

The next element is the credibility of the persuasion message, which stems from being delivered by trusted sources. In this context, credibility refers to messages conveyed by experts in a professional manner based on solid research. This can be seen in figure 2. This aspect is closely related to the effectiveness of press conferences as a communication medium, where the speakers are considered credible individuals. For instance, the task force handling COVID-19 in Indonesia had at least five spokespersons. Wiku Adisasmito, the chairman of the COVID-19 Handling Task Force Expert Team, shared scientific aspects related to the COVID-19 vaccine and its control. Reisa Broto Asmoro, an ambassador for adapting to new habits, provided information on prevention-based healthy behaviors, including immunization. Siti Nadia Tarmizi, the Director of Prevention and Control of Directly Infectious Diseases at the Ministry of Health, conveyed details about vaccination program policies and vaccine-related matters. Lucia Rizka Andalusia, representing the National Agency of Drug and Food Control (BPOM), addressed COVID-19 vaccine licensing and BPOM policies, including safety, efficacy, and quality. Additionally, Bambang Heriyanto, the Corporate Secretary of PT Biofarma, discussed vaccine logistics and distribution across Indonesia. The credibility of the spokesperson, also known as ethos, relies on delivering trustworthy information aligned with reality and possessing expertise in the topic of discussion. The advantage of daily press conferences was the simultaneous delivery of messages to the public. In the early stages of the pandemic, daily press conferences were held and broadcasted on television and YouTube, effectively utilizing both old and new media platforms to ensure accessibility of the information.

In the digital era, interactivity and two-way communication have become possible, allowing individuals to provide immediate feedback. In the elaboration of the interactivity model for vaccine persuasion, it is evident that the ability to answer questions about the

COVID-19 vaccine, both offline and online, and having courteous staff to respond are crucial elements. Another essential element is accessibility, which includes easy access to information and convenient locations and representatives for vaccination. In Semarang, the vaccine sites are located in malls and various healthcare facilities, ranging from health centers to major hospitals. Thus, the element of place plays a significant role in vaccination efforts. The availability of multiple vaccination sites ensures that people can easily access them without having to travel long distances or face overcrowding. The Semarang health office also provides an accessible online registration service through their website http://victori.semarangkota.go.id/. This website is widely recognized as a leading program at the national level, enabling residents to register for vaccination online. All they need to do is enter their identity number (NIK) and choose a preferred vaccination location. However, there are a few weaknesses in the victori system http://victori.semarangkota.go.id. For instance, there is no reminder feature, so if someone forgets their vaccination appointment, they may miss it even though the system allocates quotas for each location. Additionally, individuals who are not digitally proficient, such as elderly people without assistance, may encounter difficulties when trying to register.

Moreover, the model also emphasizes the importance of message structure in vaccine persuasion. An effective message structure includes a call to action (CTA) accompanied by information on how to register and the available vaccine types. The CTA provides clear instructions and serves to motivate people to take action and grab their attention. On the other hand, messages related to government policies, such as health protocols, are not considered effective in this model. Although the communication model acknowledges the ongoing promotion of health protocols, it suggests that these messages are not as memorable to the audience. For instance, a tweet by @KemenkesRI states, "Yes, it's possible to supplement any type of vaccine you have previously received with the currently available vaccine. So, there's no need to delay, let's get it done right away!".

Central Route and Peripheral Route Create a Difference Diffusion of Innovations

Persuasion in the Elaboration Likelihood Model (ELM) involves altering attitudes towards specific objects. This attitude change can happen through either the central or peripheral pathways, but there are notable differences between these approaches. Attitude changes resulting from the peripheral route are typically "less accessible, persistent, and resistant to subsequent messages..." (El Hedhli & Zourrig, 2022). On the other hand, attitude changes from the central route tend to be "relatively accessible, long-lasting, predictive of behavior, and resistant to change...", due to higher levels of elaboration (Miller et al., 2019). Understanding the appropriate media and elements of elaboration can greatly enhance the effectiveness of persuading booster vaccinations in the city of Semarang. Specifically, when the recipient processes the message using the central route, it becomes more deeply ingrained compared to processing through the peripheral route.

This study examines two models representing different routes. The first route is the central route, characterized by cognitive elaboration and careful consideration of persuasive

messages by the audience. After receiving the message, the audience engages in selective decision-making, accepting or rejecting the persuasion. In the context of innovation diffusion, individuals become ongoing or delayed adapters based on their decisions. The vaccine persuasion model in this study reveals that when persuasion is processed centrally, it leads to stages of innovation diffusion, resulting in adaptation. Through this route, individuals become aware of the benefits of the COVID-19 vaccine and consistently follow the government's recommended vaccines, as confirmed during the confirmation stage. Therefore, in addition to effective persuasion, it is crucial to educate people to be critical and discerning when receiving any message. The ability to receive a message determines whether the central route is utilized, which requires both a critical attitude and motivation. These two factors significantly influence the path chosen for receiving persuasion. Given the circumstances of the ongoing pandemic, vaccination persuasion becomes highly relevant to the community's needs. Messages that are relevant to individuals' circumstances have a greater impact on their motivation. However, it is worth noting that the study findings indicate that vaccine refusals are not solely attributed to a lack of education, as respondents who refused vaccines also had an undergraduate education level.

In contrast, when the audience adopts the peripheral route, they do not engage in further consideration after receiving the persuasion. In the context of the vaccine persuasion model, this study reveals that the diffusion of innovations in this case leads to rejection. The refusal can be attributed to four main reasons: delaying vaccination due to concerns about potentially fatal side effects, hesitance caused by the belief that vaccines are not free, hesitance because of the vaccination status of a relative or neighbor, and finally, refusal based on the conspiracy theory of microchips being implanted through vaccines. Messages related to vaccine issues and unverified news (hoaxes) contribute to this form of persuasion.

The two models discussed above demonstrate that different lines of thought from individuals yield varying outcomes, even when exposed to the same persuasion techniques and media for elaboration. If individuals engage in critical thinking, considering the message and its implications, successful persuasion can occur. Conversely, if the audience simply accepts the message without further thought or consideration, rejection or delay may result. Based on the two models utilizing different routes, it becomes evident that persuasion is not a one-time event. Continuous persuasion is necessary to raise awareness, knowledge, desires, and needs, ultimately leading to adoption and confirmation processes.

CONCLUSION

The persuasion model from the Semarang City vaccine case study highlights the effectiveness of communication media, both traditional and digital. These media encompass short films, advertisements, publicity efforts, social media platforms, press conferences, and websites. Public relations (PR) play a crucial role in managing and coordinating these various media channels. During the elaboration process, several significant aspects come into play, such as the quality of information, credibility of the sources, accessibility of the message, its structure, and interactivity. It's important to note that even with the same media and

elaboration, different outcomes can be observed depending on the audience's thought process. When individuals employ the central route of thinking, they are more likely to adopt the vaccine, leading to confirmation of their willingness to proceed with vaccination. On the other hand, if individuals rely on the peripheral route, rejections and delays are more likely to occur. Therefore, it can be concluded that factors beyond communication tools influence decision-making regarding vaccination.

REFERENCES

Al Hanif, D. R., Mahdalena, V., & Handayani, L. (2023). Efektivitas Komunikasi Kesehatan Melalui Short Video Bagi Perubahan Perilaku Kesehatan. *Ekspresi Dan Persepsi : Jurnal Ilmu Komunikasi*, *6*(2), 218–228. https://doi.org/10.33822/jep.v6i2.5725

Alif Nazzala R. (2021). *Vaksinasi Kota Semarang, Begini Capaiannya*. https://semarang.bisnis.com/read/20211025/535/1457856/vaksinasi-di-kota-semarang-begini-capaiannya

Bidang IKP. (n.d.). *Jateng Dorong Percepatan Vaksinasi di 7 Daerah*. https://jatengprov.go.id/publik/jateng-dorong-percepatan-vaksinasi-di-7-daerah/

Biro Pers, Media, I. S. P. (2022). *Capaian Vaksinasi Covid-19 Indonesia Naik ke Peringkat Empat Dunia*. https://covid19.go.id/artikel/2022/01/10/capaian-vaksinasi-covid-19-indonesia-naik-ke-peringkat-empat-dunia#:~:text=Menteri Kesehatan (Menkes)%2C Budi,mendapat suntikan vaksin%2C melampaui Brasil.

Dearing, J. W., & Cox, J. G. (2018). Diffusion Of Innovations Theory, Principles, And Practice. *Health Affairs*, *37*(2), 183–190. https://doi.org/10.1377/hlthaff.2017.1104

Diego, Y. L. (2023). POLARISASI VAKSIN COVID-19 STUDI TENTANG BERITA HOAX DAN POPULISME DI KOTA PADANG. *Ekspresi Dan Persepsi : Jurnal Ilmu Komunikasi*, *6*(2), 349–359. https://doi.org/https://doi.org/10.33822/jep.v6i2.5176

Eemeren, F. H. van, Blair, J. A., Willard, C. A., & Snoek Henkemans, A. F. (2003). Anyone who has a view: theoretical contributions to the study of argumentation. *Argumentation Library ; v. 8*, *January*, vii, 346. https://doi.org/10.1007/978-94-007-1078-8

El Hedhli, K., & Zourrig, H. (2022). Dual routes or a one-way to persuasion? The elaboration likelihood model versus the unimodel. *Journal of Marketing Communications*. https://doi.org/10.1080/13527266.2022.2034033

Kementerian Kesehatan RI. (2020). *Strategi Komunikasi Vaksinasi Covid-19*.

Kemkes. (2021). *4 Manfaat Vaksin Covid-19 yang Wajib Diketahui*. https://upk.kemkes.go.id/new/4-manfaat-vaksin-covid-19-yang-wajib-diketahui

Komisi Informasi Pusat. (2020). Strategi Komunikasi Publik dalam mendukung Vaksinasi Covif-19. *2020*.

KompasTV. (2022). *Capaian Vaksin Booster di Semarang Masih di Bawah Target*. KompasTV. https://www.dailymotion.com/video/x8ctz2j

Littlejohn, S., & Foss, K. (2012). Elaboration Likelihood Theory. *Encyclopedia of Communication Theory*. https://doi.org/10.4135/9781412959384.n125

Miller, Z. D., Freimund, W., Metcalf, E. C., Nickerson, N., & Powell, R. B. (2019). Merging

elaboration and the theory of planned behavior to understand bear spray behavior of day hikers in Yellowstone National Park. *Environmental Management*, *63*(3), 366–378. https://doi.org/10.1007/s00267-019-01139-w

Nurlaela, N., & Hudrasyah, H. (2013). Communication Strategy of Importance of Vaccination Using Social Media and Public Relations. *Indonesian Journal of Business Administration*, *2*(18).

Perbawaningsih, Y. (2012). Menyoal Elaboration Likelihood Model (ELM) dan Teori Retorika. *Jurnal ILMU KOMUNIKASI*, *9*(1), 1–17. https://doi.org/10.24002/jik.v9i1.50

Petty, R. E.; M. H.; J. N. H. (1997). The elaboration likelihood model: Implications for the practice of school psychology. *Journal of School Psychology*, *35*(2), 107–136. https://doi.org/https://doi.org/10.1016/S0022-4405(97)00003-4

Putri, A. P. (2021). Marketing Communication Model of Komodo Island in Indonesia (In the Study of Elaboration Likelihood Model). *Jurnal Audience*, *4*(02), 193–208. https://doi.org/10.33633/ja.v4i2.4821

Rogers, E. M. (1995). Diffusion of Innovations - Chapter 4. In *Diffusion of Innovations* (pp. 160–203). http://ocw.metu.edu.tr/file.php/118/Week9/rogers-doi-ch5.pdf

Santosa, P. I. (2018). *Metode Penelitian Kuantitatif Pengembangan Hipotesis dan Pengujiannya Menggunakan SmartPLS*. Penerbit Andi.

Setiawan, H. (2022). *Capaian Vaksinasi Booster Kota Semarang Baru 14,26 Persen, Percepatan Terus Diupayakan*. https://www.suaramerdeka.com/semarang-raya/pr-042687070/capaian-vaksinasi-booster-kota-semarang-baru-1426-persen-percepatan-terus-diupayakan

Sulistyanto, A., & Jamil, A. (2021). *NARASI KRITIS OPINION LEADER DALAM KEBIJAKAN VAKSIN Opinion leader adalah orang yang mempengaruhi adalah dengan program Menurut Rogers (2010) seorang opinion mempunyai kompetensi yang lebih tinggi dibandingkan dengan pengikutnya karena eksposur yang bes*. *12*(1), 38–54.

Supriyati, S. (2021). *Metodologi Penelitian Structural Equation Modeling Partial Least Squares Dosen Pengampu Metodologi Penelitian : Oleh : November*. https://doi.org/10.13140/RG.2.2.15759.71849

Turpyn, J. M. F., & Sunuantari, M. (2022). Influence of Public Opinion on the Management of Vaccine Issues. *Ekspresi Dan Persepsi : Jurnal Ilmu Komunikasi*, *5*(2), 142–152. https://doi.org/10.33822/jep.v5i2.4187

Yoo, C. W., Goo, J., Huang, C. D., Nam, K., & Woo, M. (2017). Improving travel decision support satisfaction with smart tourism technologies: A framework of tourist elaboration likelihood and self-efficacy. *Technological Forecasting and Social Change*, *123*, 330–341. https://doi.org/10.1016/j.techfore.2016.10.071

Zebua*, W. D. A., KN, J., Sumarni, L., & Putri, A. D. (2023). Manajemen Strategis Kampanye dalam Penanganan Polemik Vaksin Covid 19. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, *8*(2), 240–251. https://doi.org/10.24815/jimps.v8i2.24567