Models of Digital Marketing and Consumers Behavior in Selecting COVID-19 Vaccines if Even in Indonesia

Zulki Zulkfli Noor
Jayabaya University, Jakarta, Indonesia

ABSTRACT
Now COVID-19 vaccine has tried out in the countries when the vaccine is already commercialized, how are the Indonesian community behaviors in receiving the vaccine is that is communicated through social media, this is what is the goal in this research. Public service advertisements about COVID-19 vaccines are available on various social media, one of which is on YouTube, with many versions. In this study took public service advertisements about the long version of the COVID-19 vaccine. It is expected that public service advertisements can provide knowledge for users to know that COVID-19 vaccines are important for children’s immunity, and not contrary to any religion. This research uses the theory of Computer-Mediated Communication. The paradigm is used positivism with quantitative approaches, the nature of explanatory research, and survey research methods. The population is to subscribe to 2146 public service advertisements as of March 2019 with a sample of 98 respondents taken using purposive sampling. The research finding is the attractiveness perception of public service announcements has a positive and moderate relationship with the intention to use the COVID-19 vaccine. The level of knowledge has a positive and moderate relationship with the intention to use the COVID-19 vaccine. The perception of the attractiveness of public service Ads and the level of knowledge has a positive and moderate relationship with the intention to use the COVID-19 vaccine.

Key words: Social media, Digital marketing, Consumer behavior, COVID-19 Vaccine.

INTRODUCTION
Internet users in Indonesia every year continues to grow, this is due to the increasing need for internet media in everyday life. Internet media provide many conveniences for the user. According to the Indonesian Internet Service Providers Association (APJII), they presented the results of a survey entitled "Penetration and Behavior of Indonesian Internet Users 2017". The survey results in collaboration with the Teknopreneur said internet user penetration in Indonesia increased to 143.26 million people or equivalent to 54.7 percent of the total population of this republic (APJII Bulletin, 2018).

Social media is trending in society, both Indonesian society and the world community, ranging from children to adults all use social media as a means to communicate and a means to obtain varied information. Social media that are widely used include Twitter, Facebook, Instagram, Pinterest, BBM, Line, and others depending on needs. Many people end up choosing and liking social media because of the ease of interacting online with practical mobile technologies such as smartphones and iPhones that can be carried anywhere, so they can do it wherever and whenever they need.

Various social media that is often used by people around the world, one of them is Youtube. Youtube is one of the most popular social media in Indonesia, even in the world besides Facebook and Twitter. The Socialbakers analysis website (2016) shows that Indonesia is ranked 4th as a Youtube user country in the world (Yuniyanto et al., 2018). The use of social media which continues to increase every year provides opportunities for producers to utilize social media in promoting their products and services through social media.

Public service advertisements on social media are very varied, one of which is by using YouTube. YouTube media has an appeal for users to add information. The number of vlogs (video blogs) and viral video campaigns on YouTube is the latest trend to socialize and share information among internet users today. From the phenomenon of the trend of vlogs and viral video campaigns on YouTube, it shows that the public prefers information delivered in the form of visualization of images and sounds rather than text form. Youtube is a video network site that has the most number of viewers and subscribers than other sites, so videos uploaded to the YouTube site will become viral more quickly than through other sites (Cahyono et al., 2016).

Although in its development YouTube media is no longer only used as a medium for uploading and sharing personal videos to the closest friends, more than that it is in the stage of adaptation to the use of various social media including Youtube media. Through Youtube, media users can be used as a means for gathering various information needed, so that many commercial advertisements and public service ads also take the opportunity to upload their ads on YouTube. In this study, the authors examine how if a vaccine (COVID-19) already exists in Indonesia and is communicated through community services such as YouTube.

DI also attract advertising also refers to the creative approach of the message used to be able to attract the attention of YouTube media users, with the audience expected to get information and can influence the user’s feelings towards the message conveyed so that they can be interested in using the COVID-19 vaccine when it already exists in Indonesia. To produce effective advertisements, it is necessary to appeal and creative advertising strategies that are appropriate by the objectives to be achieved. Realizing the importance of the message in the public service advertisement the delivery of the message was carried out in various communication media, especially YouTube, this was done to provide information to the public about the importance of providing the COVID-19 vaccine to children up to the age of 15 years if the vaccine already exists in Indonesia. The information to be conveyed must be viral in the community, this shows the attention of media users.

In this study, the author wants to examine the appeal of public service ads and public knowledge about the COVID-19 vac-
cine against the decision to use the COVID-19 vaccine to his child if the vaccine has circulated in Indonesia. The phenomenon that occurs in the community shows that many parties are pros and cons of the COVID-19 vaccine so that the Ministry of Health seeks to continue to carry out various campaigns, socialization and public service advertisements in various print, electronic and online media with the aim that the public gets the right information about the COVID-19 vaccine directly from the experts if the vaccine already exists in Indonesia. Public service announcements about the COVID-19 vaccine will later have many versions, both long and short. However, the contents of the messages in the public service announcements were delivered by doctors who were considered credible in delivering this message. It is hoped that with this kind of creative advertising messages can be well received by the Youtube user.

LITERATURE REVIEW

Public service advertisement

Promotion strategies are very diverse, one of the promotional strategies that are often used is advertising. In social marketing, advertising can be a commercial advertisement and can also be a Public Service Announcement (PSA) or a public service advertisement. According to Pujianto (2013) defining public service ads are advertisements used to convey information, invite or educate audiences where the ultimate goal is not economic benefits, but social benefits. Social benefits include the emergence of additional knowledge, attitudes awareness, and behavioral changes to the problem advertised which are all very important benefits for the quality of life of the community itself.

Like commercial advertising in general, public service ads also have the same principles in their preparation. Advertising is a form of persuasive message that has an important role in conveying the aims and objectives of a company. Therefore the most important thing in a public service advertising strategy is to create persuasive communication that can influence the target adopter to change his behavior by the wishes of the social marketer. Persuasive messages are one forming the effectiveness of communication in social marketing.

As explained by Mowen and Minor (2002) that the message content is a strategy used to communicate ideas to the viewer. This persuasive message will later be channeled to the target adopter through public service advertisements, outreach, or campaigns that are often carried out by social marketers. To attract the attention of the target adopter, the message in social marketing is not merely persuasive. More creative strategies are needed to attract attention so that the message is more memorable to the target adopter.

Attraction of advertising

The attractiveness of advertising (power of impression) of an ad is how much the advertisement can amaze or attract the attention of its viewers (Indriarto, 2006). The appeal of advertising (advertising appeal) refers to the approach used to attract the attention of consumers and affect their feelings towards a product. To foster appeal to the target audience advertising must be able to display advertising messages that can persuade, be able to arouse, and retain consumers’ memories of the products offered.

Regarding the attractiveness of advertisements, Suyanto (2005) added that advertising is a supporting tool in the promotion program, therefore attractiveness is needed so that the message delivered has the desired impact of advertisers.

The attractiveness of advertising is very important because it will increase the success of communication with the audience (Sutisna, 2003). The attractiveness of advertising itself is divided into 2 (two) namely the attractiveness of rational advertising messages and the attractiveness of advertising messages based on feelings and emotions. The appeal of rational advertising messages is divided into four types of advertisement appearances, namely factual, a slice of life, demonstration, and comparative advertising. While the attractiveness of advertisements based on feelings and emotions contains elements such as fear, humor, animation, sex, music, and fantasy.

Social media

According to (Nawiroh et al., 2016) new media is a tool or a means of conveying messages to a wide audience using digital technology or also known as communication and information technology networks. This includes new media categories are the internet, websites, and multimedia computers. Now that the new media has reached almost all the people of the world, the new media can be said to have contributed to changes in the social structure of society. New media requires a computer or mobile device with internet access.

Social media is a means to communicate with the community but it can also be used to get along. Social media to establish personal relationships online, users of online media easily participate, share (share), and create content including blogs, social networks, wikis, forums, etc. (Saragih et al., 2012). Social media is also an effective business promotion tool because it can be accessed by anyone, so the promotion network can be wider. Social media is an indispensable part of marketing for many companies and is one of the best ways to reach customers and clients. Social media like blogs, Facebook, Twitter, YouTube, etc. have several benefits for companies and are faster than conventional media such as print media, TV ads.

Knowledge level

Providing information will increase one’s knowledge. Knowledge can make someone have awareness so that someone will behave according to the knowledge they have. Changes in behavior based on knowledge, awareness, and positive attitudes are lasting because they are based on their awareness rather than coercion (Notoatmodjo, 2011). Every human being has a different level of knowledge. The level of knowledge starts from knowing (understanding), understanding (comprehension), application (application), analysis (analysis), synthesis (synthesis), and evaluation (evaluation).

Consumer behavior

According to Kotler and Keller (2009), consumer behavior is a study about how individuals, groups, and organizations choose, buy, use, and how goods, services, ideas, or experiences to satisfy their needs and desires. This definition explains 3 important things, namely: 1) Consumer behavior is dynamic, elastic, difficult to guess or difficult to form, 2) From the point of interaction usually behavior is formed due to environmental factors, 3) Seeing exchanges such as exchanging goods belonging to sellers for money buy.

According to Kotler and Keller (2009) a complicated buying process usually involves several decisions, a decision involves a choice between several alternative actions or behaviors, in essence, even though marketers often refer to the choice between product, brand, and place of purchase, the purchase process is also usually influenced by good relations between producers.

Methods in the purchase process of individual consumers (Kotler and Keller, 2009), namely: Problem Recognition, Information Search, Alternative Evaluation, Purchasing Decisions, Post-Purchase Behavior.

Digital Marketing-Mediated Communication

Computer-Mediated Communication (CMC) is a form of communication that is very different from other forms of communication such as interpersonal communication, group communication, organization, and mass communication. As Andrew F.Wood and Matthew J. Smith (2005) said, CMC is an integration of computer technology with everyday life. In it often there are vague boundaries between forms of mediated communication and forms of communication that are mediated.

According to Ben H. Bagdikian (2004) had written that internet technology is the main pillar in the form of CMC, its position is still ambiguous whether or not as a mass media. On the one hand, the internet is not centrally controlled in deciding what will be disseminated to the public interest. But on the other hand, this form of CMC communication demonstrates the mass effects in its
reporting, general information, and its impact on the vast population. Each of the categories of communication that have been mentioned such as interpersonal communication, group communication, and mass communication have their respective characteristics that explain the distinctive position of each of these categories. Interpersonal communication has a closer intimacy distance when compared to group communication.

**Research paradigm**
This study uses a positivistic paradigm, where this paradigm is based on an assumption that a phenomenon can be classified, and the causal relationship is causal (cause and effect), so the researcher can research by focusing on only a few variables Sugiyono (2015).

**Research approach**
The approach in this study uses a quantitative approach. A quantitative approach that aims to find the truth objectively, empirically, systematically, and organized. Because this quantitative research is concrete in nature that can be quantified in the form of numbers, so this research is objective in nature with results that can be generalized to the population and can be interpreted by everyone. Quantitative research is research that describes or explains a problem whose results can be generalized. Thus quantitative research needs not to be concerned with the depth of the research data considered to be a representation of the entire population. (Kriyantono, 2012).

**Types of research**
This research uses the explanatory research type. This type is used when researchers want to know why certain situations or conditions occur, or what influences the occurrence of something. Researchers not only describe the occurrence of phenomena but try to explain why phenomena occur and how they affect them. The researcher explains the relationship between two or more variables and is required to make a hypothesis as an initial assumption to explain the relationship between the variables studied.

Researchers attach importance to the breadth of the data so that the data or research results are considered to be a repetition of the entire population. Researchers are required to be objective and separate from the data. All must be objective by first testing whether the limitations of the concept and its measurement tools have met the principles of reliability and validity. The researcher tries to limit the concepts and variables under study by directing the research in a controlled, more systematic, and structured setting (Krisyantono, 2012).

**Research methods**
This research method uses a type of survey research. The survey is a research approach that aims to find the truth objectively, empirically, systematically, and organized. Because this quantitative research is concrete in nature that can be quantified in the form of numbers, so this research is objective in nature with results that can be generalized to the population and can be interpreted by everyone. Quantitative research is research that describes or explains a problem whose results can be generalized. Thus quantitative research needs not to be concerned with the depth of the research data considered to be a representation of the entire population. (Kriyantono, 2012).

**Population and sample**
The population is a generalization area that consists of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. The population is not just a number but includes all the characteristics or properties possessed by the object or subject (Sugiyono, 2015). The population to subscribe to COVID-19 Public Service Vaccination Advertisements if already in Indonesia as of March 2020 is: 2146 respondents with a sample size 95.55, rounded to 96 samples.

**Sampling technique**
Sampling is done with types of sampling techniques in this study using a purposive sampling technique. Sugiyono (2008) states that purposive sampling is a sampling technique with certain considerations. According to Margono (2004), the selection of a group of subjects in purposive sampling is based on certain characteristics that are considered to have a close connection with previously known population characteristics, in other words, the sample units contacted are adjusted to certain criteria applied based on research objectives. The criteria determined by the researchers include:
- It is a subscription to public service ads on Youtube.
- Comment on public service announcements, if the COVID-19 vaccine already exists in Indonesia.

**RESULTS AND DISCUSSION**

**Correlation test**
Table 1 above shows that the correlation coefficient is 0.684. This value shows that variable X1: Perception about the attractiveness of public service ads about COVID-19 Vaccine and variable X2: Knowledge Level has a strong relationship with variable Y: Intention to use COVID-19 vaccine.

**Determination test**
Analysis of the Coefficient of Determination (R2) is used to determine how much percentage of the contribution of the influence of independent variables on the dependent variable either partially or stimulative. This can be seen in the R Square column.

Based on Table 2 above, the results of R Square for variable X1: The perception of the attractiveness of public service ads about the COVID-19 vaccine on Youtube is 0.391. This shows that variable X1: perception of the attractiveness of COVID-19 vaccine public service ads has contributed to variable Y: intention to use the COVID-19 vaccine of 0.391 x 100% = 39.1%. This means that the perception of the attractiveness of COVID-19 vaccine public service ads on Youtube only contributed 39.1% to the intention to use the COVID-19 vaccine. The remaining 60.9% is influenced by other factors.

**Table 1: Correlation Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std, Error of the estimate</th>
<th>Change Statistics</th>
<th>Durbin Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.684a</td>
<td>0.334</td>
<td>0.357</td>
<td>2.57992</td>
<td>R Square change: 14,926</td>
<td>2</td>
</tr>
</tbody>
</table>

Predators: (Constanta) X1 X2
Dependent Variable: Y

**Table 2: Summary Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. An error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.553a</td>
<td>0.391</td>
<td>0.188</td>
<td>2.82309</td>
</tr>
</tbody>
</table>

Predators: (Constanta) X2
Dependent Variable: Y
Based on the Table 3 above, the results of R Square for variable X2: The level of knowledge of 0.427. This shows that the level of knowledge has a contribution to the intention to use the COVID-19 vaccine of 0.427 x 100% = 42.7%. This means that the level of knowledge contributes 42.7% to the intention to use the COVID-19 vaccine. The remaining 57.3% is influenced by other factors.

Based on the Table 4 above, the results of R Square for variable X1: perception of the attractiveness of public service ads and variable X2: knowledge level of 0.494. This shows that the variable perception of the attractiveness of COVID-19 vaccine public service ads on Youtube (if it already exists) and the variable level of knowledge together (simultaneously) have a contribution to the intention to use variables of 0.494 x 100% = 49.4%. This means that the perception of the attractiveness of COVID-19 vaccine public service ads on Youtube (if available) and the level of knowledge contributing simultaneously to the intention to use the COVID-19 vaccine by 49.4%, while the remaining 50.6% is influenced by other factors.

**Multiple linear regression test**

Based on the calculation of multiple regression between the appeal of public service ads and the level of knowledge of the decision to use COVID-19 vaccine public service ads on Youtube, the results obtained by researchers are as follows.

From the results of the table calculation 5 then the multiple regression equation can be formed as follows:

\[ Y = 16,826 + 0.445 \times X_1 + 0.498 \times X_2 \]

Where

Y: Intention to Use the COVID Vaccine

X1: Perceived Appeal of COVID-19 Community Service Adverts on Youtube

X2: Knowledge level

The Table 5 shows that the constant value in the regression equation is 16,826. Variable coefficient X1 the attractiveness perception of public service ads and with an R square of 0.445. The positive sign on the coefficient value shows the direct relationship between the perception of the attractiveness of COVID-19 vaccine public service ads to use COVID-19 vaccine which statistically means that if the perception variable attractiveness of COVID-19 vaccine public service ads rises one-unit then the intention variable to use the COVID-19 vaccine will experience an increase of 0.445.

Variable coefficient X2 Significant level of knowledge in the regression model with a variable regression coefficient of 0.498. The positive sign on the coefficient value shows a direct relationship between the level of knowledge to use the COVID-19 vaccine where statistically means that if the variable level of knowledge rises one-unit, the intention to use the COVID-19 vaccine will experience an increase of 0.498.

**Partial test (T-Test)**

T-test was conducted to determine the level of significance or at least the effect of each independent variable on the dependent variable. The results obtained by researchers are as follows.

Based on Table 6, the t-test steps are as follows:

1. The calculated value for the variable X1 perception of the attractiveness of public service ads is 3.685>T table 1.662 and significance (Sig) 0.002<0.05. So it can be concluded that H0 is rejected and Ha is accepted, which means "Perception of the attractiveness of public service adverts for COVID-19 vaccine (if it is already in Indonesia) has a positive effect on the intention to use the COVID-19 vaccine".

2. The calculated value for the variable X2 knowledge level is 3.917>T table 1.662 and significant (Sig) 0.002<0.05. Then it can be concluded that H0 is rejected and Ha is accepted which means "the level of knowledge has a positive effect on the intention to use the COVID-19 vaccine".

**Simultaneous test (F Test)**

The F test was carried out to determine the level of significance of the influence of the independent variables together on the dependent variable. The results obtained by researchers are as follows.

In Table 7 we get an F count of 15.768> from the F table of 3.099 and a significance value (Sig) of 0.000<0.05. It can be concluded that in this model there is a simultaneous influence between the perception of the attractiveness of COVID-19 public service advertisements (if they already exist in Indonesia) and the level of knowledge of the intention to use COVID-19 vaccines.

---

### Table 3: Summary Model

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. An error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>601a</td>
<td>0.427</td>
<td>0.216</td>
<td>2.79909</td>
</tr>
</tbody>
</table>

Predactors: (Constanta) X2
Dependent Variable: Y

### Table 4: Summary Model

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. An error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>684a</td>
<td>0.494</td>
<td>0.287</td>
<td>2.83857</td>
</tr>
</tbody>
</table>

Predactors: (Constanta) X1 X2
Dependent Variable: Y

### Table 5: Multiple Linear Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>16,826</td>
<td>4,972</td>
<td>3,659</td>
</tr>
<tr>
<td>X1</td>
<td>445</td>
<td>0.197</td>
<td>0.448</td>
</tr>
<tr>
<td>X2</td>
<td>498</td>
<td>0.198</td>
<td>0.479</td>
</tr>
</tbody>
</table>

Variable dependent: Y
Information and communication technology is understood as a tool that needs to be used responsibly. Awareness that this technology brings changes in behavior, patterns of personal interaction because it can be used many times, anytime, and anywhere. The findings of information and communication technology emphasize the use of technology is determined by the maturity of one's personality. While the maturity of a person's personality is determined by the construction of concepts and self-identity, so that information and communication technology can add to the person who uses it.

According to Spitzberg in Greiffenstern (2010), CMC is included in human interaction conducted and facilitated through digital-based technology. This definition includes the internet; mobile phone text, Instant Messaging (IM), multi-user interactions (MUDs & MOOs); internet, e-mail, and video conferencing.

The exchange of messages using new media is immediate (synchrony), if related to this research that public service advertisements accessed by users via YouTube are exchanged messages immediately, where users who want to interact directly to inquire about these advertisements can be handled directly by competent parties so that the user's curiosity can be answered immediately. The communication that takes place is two-way communication that allows ongoing communication.

Public Service Ads about COVID-19 vaccines (if any in Indonesia) are expected to persuade the public by inviting and encouraging the public to understand, be aware of, and think about in order not to fall prey to problems that should be overcome through COVID-19 vaccine administration. In developed countries advertising has been pioneered lately in different culture and habits.

There are many regulations for advertising in Indonesia that have issues of cultural diversity, religion, language, lifestyle, and assessment of each community group. Giving the COVID-19 vaccine is predicted to reap the pros and cons of users, some think that it is contrary to the religion they hold. Through public service announcements, it is expected to provide complete information and explanations from religious leaders who say the COVID-19 vaccine is mandatory and justified by religion.

### CONCLUSION

The attractiveness perception of public service announcements has a positive and moderate relationship with the intention to use the COVID-19 vaccine of 0.391 or 39.1%. The level of knowledge has a positive and moderate relationship with the intention to use the COVID-19 vaccine of 0.427 or 42.7%. The perception of the attractiveness of public service ads and the level of knowledge has a positive and moderate relationship with the intention to use the COVID-19 vaccine of 0.494 or 49.4%. It is hoped that through this public service advertisement the public will get complete information to increase their knowledge about the importance of this COVID-19 vaccine if it already exists in Indonesia. Through this public service advertisement, users are expected to be interested and intend to use this COVID-19 vaccine. If related to the results of this study, the level of relationship between attractiveness perception of public service advertisements and the level of public knowledge is strong and positive about the intention to use the COVID-19 vaccine.

### REFERENCES


---

**Table 6: T-Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>16,826</td>
<td>4,972</td>
<td></td>
</tr>
<tr>
<td>X1</td>
<td>.445</td>
<td>.197</td>
<td>.448</td>
</tr>
<tr>
<td>X2</td>
<td>.498</td>
<td>.198</td>
<td>.479</td>
</tr>
</tbody>
</table>

Variable dependent: Y
Predictor (constanta): X1 X2

**Table 7: Test F**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>180,269</td>
<td>2</td>
<td>91,479</td>
<td>15768</td>
<td>00b</td>
</tr>
<tr>
<td>Residual</td>
<td>656,239</td>
<td>88</td>
<td>7,264</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>739,712</td>
<td>90</td>
<td>6,846</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variable dependent: Y
Predictor (constanta): X1 X2


