

## THE EFFECTIVENESS OF HEALTH PROTOCOL AND COVID-19 PREVENTION ADVERTISEMENTS USING CUSTOMER RESPONSE INDEX (CRI) ON THE COMMUNITY IN BANJARMASIN CITY

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### ABSTRACT

The aim of this research is to determine the Awareness, Comprehend, Interest, Intention, and Action levels of people in Banjarmasin City regarding the Covid-19 prevention and health protocol through advertisements. It also aims to measure the effectiveness of this advertisement using the Customer Response Index (CRI). This research used the quantitative descriptive approach and was carried out in Banjarmasin City in August 2020 using a total sample size of 100 people. The sample comprised males and females above the age of 18 and ever saw the advertisement of health protocol and covid-19 prevention on national and local TV stations or social media. Data were obtained from the respondents using online questionnaires developed based on CRI dimensions. The result showed that the people in Banjarmasin have 79% of Awareness, 91% of Comprehend, 92% of Interest, 76% of Intention, and 93% Action after seeing the Covid-19 advertisement. Furthermore, the Customer Respond Index (CRI) was 46.75% and quite effective, while the Awareness and Intention received the lowest response among all CRI dimensions. Thus, in the future, these two variables should be further improved.

Keywords: Marketing, Advertising, Customer Response Index (CRI), Covid-19

### 1. Introduction

Currently we are faced with a global pandemic in which all countries in the world is battling the Corona virus outbreak. Corona Virus Outbreak Disease or better known as Covid-19 was first detected in China, to be precise in Wuhan City at the end of 2019. It suddenly became dangerous after taking the lives of hundreds of people in a relatively short time short. Nearly 200 countries in the world have been infected with the Corona virus, including Indonesia. It was recorded that until May 28, 2020 there were more than 5 million residents world infected with Covid-19 and more than 300 thousand of them died. (source: [www.covid19.kemkes.go.id](http://www.covid19.kemkes.go.id)).

The first time Corona virus entered Indonesia was reported around February 2020 ago. Exactly two people tested positive for the Corona virus on 2 March 2020. The announcement of the first Corona virus case was delivered directly President Joko Widodo with Minister of Health Terawan Agus Putranto, in Jakarta Merdeka Palace, Jakarta, on March 2, 2020. Additional positive cases in Indonesia started to go fast since April 6 which is around 200-300 people per day, then move on up 300-400 new cases per day and now nearly 500 new cases per day. Finally, on May 28, 2020, positive cases of Covid-19 in Indonesia experienced an increase of 686

people with a total of 23,851 cases with a total of positive deaths reached 1,473 cases (source: [www.covidmonitoring.kemkes.go.id](http://www.covidmonitoring.kemkes.go.id)).

Indonesia witnessed a continuous daily increase in the number of Covid-19 infected people, especially in South Kalimantan. As for the South Kalimantan region, it was first reported by The South Kalimantan Provincial Health Office on March 22, 2020 recorded there were findings of five Covid-19 cases in South Kalimantan. To as of date April 28, 2020 there were 819 positive cases of Covid-19, of which 72 cases recorded dead with the highest additional cases of 105 cases per year April 28, 2020. In addition, there are 171 cases of patients under surveillance who indicated Covid-19. The areas that have positive cases of Covid-19bThe largest number in South Kalimantan is Banjarmasin City with a total of positive cases of 365 cases, followed by Tanah Bumbu Regency with 123 cases (source: [www.dinkes.kalselprov.go.id](http://www.dinkes.kalselprov.go.id)).

This led to the implementation of various preventive and treatment methods by the central and regional governments to decrease the virus's spread. Some of these policies include lockdown, social distancing, as well as Large-Scale Social Restrictions (Pembatasan Sosial Berskala Besar / PSBB) in big cities, such as Banjarmasin City. However, these preventive efforts are still not

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optimal in reducing the rate of increase in Covid-19 cases.

Therefore, the government embarked on providing awareness by providing appeals such as placing banners, advertisements, and educational posters to the public regarding health protocols to prevent the virus's spread. The electronic media and the internet is the most common technique used in delivering these messages. By providing public service advertisements regarding Covid-19 preventive measures on many local and national TVs, people become more aware of the virus, thereby reading its spread. Furthermore, social media such as YouTube, Facebook, and Instagram are also used by the local health office to broadcast appealing videos on the virus's spread. These media are still used by the government all over Indonesia, including Banjarmasin City.

Until now, there have been several advertisements made by the central health office and broadcast through social media and national television which then forwarded by the South Kalimantan provincial health office to be broadcast on local television as well as the official facebook and Instagram of the provincial health office South Kalimantan.

From a total of six public service advertisements made by the health office, all of them were delivered in a different ways, such as using microblogging, scene design, and monologues, but all of these ads have something in common, namely providing education about How to implement the correct health protocol during the Covid-19 pandemic take place. The health protocol is to wear a mask, avoiding crowds, prioritizing activities at home, washing diligently hands, avoid touching your face, take a shower immediately after coming to travel outside the home and maintain the body's immunity.

Based on the explanation above, the authors are interested in examining the Effectiveness of Health Protocol and Covid-19 Prevention Advertisement Using the Customer Response Index (CRI), especially for people living in Banjarmasin City. This is because, among all South Kalimantan regions, Banjarmasin City has the most number of positive cases. This study's results are expected to provide input to the government in using advertising media effectively to increase public awareness in implementing health protocols to avoid exposure to the Covid-19 virus.

The planning and control of effective advertising media is strongly dependent on good management. Kotler (2003) stated that evaluation of advertising consists of:

1. Communication Effect Research: This process determines the possibility of advertising to achieve communication effectively. The process is usually carried out before the advertisement is put in the media and printed and broadcast. There are three main methods of pre-testing advertisement, namely:
  - a. Direct Rating Method: It is carried out by asking a group of people or consumers to rank several ads. An ad is meant to score

high in all respects, assuming it is thought to stimulate buyers.

- b. Portfolio Test: Consumers are asked to glance through series of advertisements, then asked to remember everything regarding the ad and deliver the message back.
- c. Laboratory Test: Tools are used to measure consumers' reactions to an advertisement, such as heart rate, blood pressure, and eyes toward the test. However, it measures attractiveness rather than beliefs, attitudes, and interests.

The two popular post-testing methods of advertising are:

- a. Recall Test: The authors asked those that had come across the ad to recall the product advertised in descending order.
  - b. Recognition Test: Certain media readers are asked to re-visualize what they saw in previous publications.
2. Sales Effect research: The impact of selling an ad is generally more difficult to measure than communication. Sales are influenced by many factors other than advertising, such as price, product, goods availability, and the competitors' actions. Its impact is easiest to measure in direct marketing situations and most difficult for brands and advertisements that build a company's image. There are two methods used in this research, namely historical approach, and experimental design.
    - a. Historical Approach: This is carried out by comparing past sales against previous advertising budget expenditures.
    - b. Experimental Design: This is carried out by measuring fluctuating advertising spend rates on a sales basis. The results are used to compare the effect of advertising spending on sales, each time it is carried out but at a different cost.

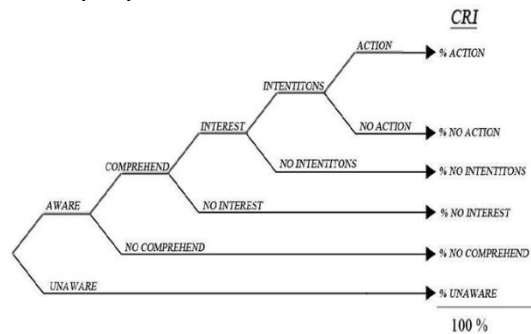
In testing advertisements for consumers and measuring its effectiveness, the Hierarchy of Effects became the basis for the development of various alternative methods (Durianto, 2003) such as Brand Awareness, EPIC Model, Direct Rating Method (DRM), Consumer Response Index (CRI), and Consumer Decision Model (CDM).

According to Durianto (2003), CRI is the multiplication result of Awareness, Comprehend, Interest, Intention, and Action. CRI is the only method used to measure the number of respondents that are Unaware, not interested, do not Comprehend, and without Intentions as well as Action. This method displays step by step audience response starting from the emergence of consumer awareness until it is able to direct consumers to an action (act to buy).

The elements in CRI include the following six stages (Best, 2012):

1. Awareness: in the early stages, the initial purpose of advertising is to raise brand awareness by ensuring a customer recognizes or recalls a brand as part of a specific product category.
2. Comprehend: This is a customer's understanding and knowledge of the product, content, and advertisement broadly, completely, and thoroughly. It is also an important process carried out by a potential customer before liking or disliking a product.
3. Interest: Customer knowledge of the product is used to generate interest, such as feelings of like or dislike associated with the advertised product. This stage occurs when someone understands and is aware of the advertised product, then the next stage is to build interest.
4. Intentions: After interest arises, or after seeing an advertisement, consumers are usually not sure whether to buy it, therefore the marketer's job is to inspire them in making the right choice. When a potential customer is already interested in the advertised product, then an intention to find out more and possibly buy it arises.
5. Action: The act of buying or using made is the last stage.

**Figure 2.1: Stages of Customer Response Index (CRI)**



Source: Best, Roger J. (2012, p. 243)

Roger J Best developed the Customer Response Index (CRI) as a tool to measure advertising effectiveness using ad audience responses as an indicator. The elements in CRI are related to one another. Furthermore, in CRI, Awareness is important because it is positioned as the initial stage in measuring advertising effectiveness. This is because this stage needs to be fulfilled before others. When an advertisement is unable to pass the Awareness stage, subsequent processes become unachievable (Best, 2012). Furthermore, the Customer Response Index (CRI) produces a percentage of advertising effectiveness measured through several stages. The CRI calculation formula is as follows (Best, 2012):

1. Unawareness
2. No Comprehend = Awareness X No Comprehend
3. No Interest = Awareness X Comprehend X No Interest

4. No Intentions = Awareness X Comprehend X Interest X No Intentions
5. No Action = Awareness X Comprehend X Interest X Intentions X No Action
6. Action = Awareness X Comprehend X Interest X Intention X Action

Therefore, the final result of the CRI is in the form of a percentage of the total audience that has passed the stages, ranging from Awareness to Action. This CRI model adapts the model developed by Robert Lavidge and Gary Steiner, namely hierarchy-of-effects (Severin & Tankard, 2001). This model includes various stages of response, from awareness, knowledge, liking, preference, conviction, to Action. An advertising message is declared effective, assuming it has the ability to go through various stages of the response.

The Customer Response Index (CRI) model has the final result in the form of a percentage that has gone through the Hierarchy Effects stages as a whole, from Awareness to Action (Best, 2012). This model shows the buying process from initial awareness to purchasing Action. The decision is entirely up to the public, however advertisers have the ability to try all kinds of ways to make these ads are effective. CRI is one of the measuring tools for advertising effectiveness because marketing communications play an important role in the enhancement process (Durianto, 2003).

## 2. Research methods

This research was carried out in Banjarmasin City. The subjects included all men and women in this area within the age of 18 years and above and had come across advertisements regarding health protocol and the Covid-19 prevention broadcast on national and local TV stations or social media platforms such as YouTube, Instagram, or Facebook. The total population in Banjarmasin City, based on the latest data from the Central Statistics Agency (BPS) of Banjarmasin City in 2019, is 700,870 people (source: [www.banjarmasinkota.bps.go.id](http://www.banjarmasinkota.bps.go.id)). This research was carried out in August 2020 using a total sample of 100 respondents obtained with the Slovin formula. Data were obtained through a questionnaire developed based on indicators on the Customer Response Index (CRI) variable. This questionnaire was developed from Best's (2012) research and adapted to government advertisements to prevent the spread of Covid-19.

This research uses a quantitative descriptive approach with data analyzed to determine its validity and reliability. Furthermore, the study also analyzes the effectiveness level of advertisements on health protocol and the Covid-19 prevention in Banjarmasin City based on the dimensions contained in the Customer Response Index (CRI) method, namely Awareness, Comprehend, Interest, Intentions, and Action. The level of advertising effectiveness is measured based on the stages found in the Customer Response Index (CRI). Furthermore, the CRI calculation results were determined from

a percentage (%) to determine the effectiveness level of the advertisement on health protocol and the Covid-19 prevention in conveying government messages to the public. The data obtained from the questionnaire results are described descriptively using models and analysis tools following the indicators of the advertising messages' effectiveness, namely, Awareness, Comprehend, Interest, Intentions, and Action in the Customer Response Index (CRI). Furthermore, cross-tabulation (crosstabs) is used to view data linkages and explain the existing findings.

### 3. Results and Discussion

Based on the data collected, it can be concluded that from a total of 100 samples taken, 61% of the respondents were female with the most extensive age range of 17-25 years (54%), while the remaining 46% were over 25 years old. All respondents' were domicile in Banjarmasin city (100%). Approximately 55% had their education level up to Diploma, Bachelor, Master, and Doctor, while the remaining 45% had Junior and Senior High School education. All respondents admitted that they had seen advertisements for health protocols and covid-19 prevention. Therefore, they were deemed fit to be used as samples representing the Banjarmasin city population with the ability to continue to answer the next question item. Out of the total 100 samples taken, almost 100% have seen advertisements for Covid-19 health and prevention protocols broadcasted through social media, namely YouTube, Facebook, and Instagram (97%). Meanwhile, 64% have seen the advertisement through television, while the remaining 14% used other media such as radio, banners, and billboards (14%). Therefore, it can be concluded that social media is most frequently seen by respondents providing health protocol and Covid-19 prevention advertisements.

Furthermore, before the data is analyzed further, the research instrument used is tested to determine its validity and reliability. The validity test results show that all questions have a calculated r-value greater than the r-table, at 0.197. Therefore, all questions were declared valid to be used as a research instrument. Furthermore, based on the reliability test results, it appears that the Cronbach Alpha coefficient value is 0.709. Therefore, the questionnaire is declared reliable as a research instrument with consistency to measure the same symptoms. After the instrument is declared valid and reliable, the data is calculated using the Customer Response Index (CRI) to assess the advertisement's level of effectiveness.

Based on the data obtained, it can be concluded that each dimension has a fairly good score, with a percentage value of more than 50%. The highest percentage dimensions are Action, Interest, and Comprehend, while Intention and Awareness are the lowest. Therefore, in conclusion, the majority of people in Banjarmasin city comprehend the advertising content for health protocol and Covid-19 prevention. They are also interested in complying with the

recommendations displayed and have taken Action in accordance with the recommendations shown in these advertisements. However, the level of public awareness and intention to carry out the recommendations displayed is still lower than in other dimensions, therefore further improvement is needed.

The effectiveness of the advertisement for the health protocol and the Covid-19 prevention in the people of Banjarmasin city, is calculated as follows:

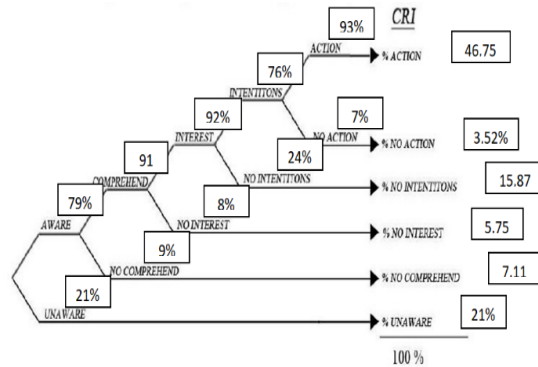
1. Unawareness value = 21%  
The amount of unawareness value or the response of the people unable to recognize the advertisement is 21%
2. The No Comprehend value  
= aware x no comprehend  
= 79% x 9%  
= 7,11%  
The value of no comprehend or the people that do not understand the message inherent the advert is 7,11%
3. No Interest Value  
= aware x comprehends x no interest  
= 79% x 91% x 8%  
= 5,75%  
The value of no interest or the people response not interested in implementing recommendations despite having an adequate understanding of the message is 5.75%
4. No Intention Value  
= aware x comprehends x interest x no intention  
= 79% x 91% x 92% x 24%  
= 15,87%  
The no intention value or response from people that do not intend to carry out the advert's recommendations despite being interested is 15.87%.
5. No Action Value  
= aware x comprehends x interest x intention x no action  
= 79% x 91% x 92% x 76% x 7%  
= 3,52%  
The no-action value or public response that failed to carry out recommendations in accordance with the adverts was 3.52%.
6. The value of the Customer Response Index is people response in the Action dimension. The following is the calculation of the CRI value:  
Nilai CRI = aware x comprehends x interest x intention x action  
= 79% x 91% x 92% x 76% x 93%  
= 46,75%

The value above shows that the effectiveness level of the advertisement on health protocol and Covid-19 prevention in the people of Banjarmasin city is 46.75%. This is the value of people responded that had implemented recommendations on advertising. The results of the Customer Response Index (CRI) value when mapped into the effectiveness scale range are on a scale of 33.00 - 66.00 which is quite effective (Wulandari and Lutfiyati, 2018). Therefore, these advertisements' effectiveness through television and social media falls into the fairly effective category (46.75%). The percentage of respondents that reached the stage of

implementing the advertisement recommendation was 46.75%. Therefore, it can be calculated that 53.25% Customer Response Index (CRI) is achievable through advertisement.

After the CRI calculation results are obtained, a CRI hierarchy is created, which is presented in the form of the Hierarchy Customer Response Index (CRI) of Health Protocol and Covid-19 Prevention Advertising through Television and Social Media.

**Figure 3.1 Hierarchy of Customer Response Index (CRI) on Health Protocol and Covid-19 Prevention Advertising through Television and Social Media**



The Hierarchy of the Customer Response Index (CRI) above shows that effective advertising makes consumers go through several response stages, from awareness to concrete Action. Therefore, the overall CRI response stage obtained from this study shows that there is a fairly high response in all stages, starting from awareness (79%), comprehension (91%), interest (92%), intentions (76%), and Action (93%).

By calculating the CRI formula, the response stage from the comprehension to the Action is reduced. This is due to respondents' presence without comprehension, interest, intentions, and Action by 9%, 8%, 24%, and 7%, respectively. The final CRI result is at the action stage, which is 46%. Furthermore, when this stage has a value of 46.75%, the respondent becomes affected by the effect of the stimulus, which ends in the Action, in accordance with the implementation and recommendations conveyed.

Therefore, the advertisement of health protocols and Covid-19 prevention is effective in positively affecting the audience. It starts from cognitive at the CRI response stage, namely awareness and comprehends, followed by interest and intentions, and lastly, Action. The result of the CRI value at each response stage shows a value that is almost 100%. In summary, the advertisement for the health protocol and Covid-19 prevention broadcast on television and social media have a positive and effective effect due to its ability to gain public awareness.

According to Kotler (2009), the cost required to keep new customers is five times more than the existing ones. Therefore, companies that have just released a campaign are challenged with the best ways to attract the attention of the public. Therefore, in terms of health protocol and Covid-19 prevention advertisements, even

though the numbers obtained are fairly good, almost 100% of respondents are positive at every level. This means that the marketing communications from this campaign need to remain intensive. This is supported by Sutherland & Sylvester's statement in their book "Advertising and The Mind of the Consumer," which stated that the new campaign does not need to be rushed. Furthermore, the government does not need to be easily complacent of the good public response because this response is only a temporary euphoria that is likely to come down sometime later. Therefore, the campaign regarding the health protocol and the Covid-19 prevention needs to be continuously pursued to achieve its objectives.

#### 4. Conclusion

In conclusion, 79%, 91%, 92%, 76%, and 93% of people in Banjarmasin City possessed awareness, comprehend, interest, intention, and Action, respectively, after coming across the advertisement of the health protocol and the Covid-19 prevention with a Customer Respond Index (CRI) of 46.75% (quite effective).

Furthermore, in order to obtain a campaign for the successful prevention of Covid-19 are as follows:

1. Although the value obtained in this study are fairly good, almost 100% of respondents are positive at every response level. Therefore, the marketing communication from the campaign for health protocols and the Covid-19 prevention needs to be intensively conducted. The government does not need to be easily complacent on the good public response because it is temporary and likely to decline sometime later. This means that the campaign needs to consistently and continuously strive to achieve its objectives.
2. The results concluded that 97% of respondents saw protocol health and Covid-19 prevention advertisements that were broadcast through social media, such as YouTube, Facebook, and Instagram. This shows that respondents most frequently use social media, therefore it needs to be used as a media to advertise government campaigns. It is an alternative channel that is efficient, affordable, and capable of attracting a wider target audience, supported by various features according to its users' needs, ranging from personal to business.
3. Awareness and intention received the lowest response among all CRI dimensions. Therefore, suggestions are needed to improve these two dimensions by creating unique, creative, and interesting advertising content to increase awareness and intention to carry out (Intention) the recommendations conveyed in the advertisement of health protocols and Covid-19 prevention. Furthermore, the government also needs to show these advertisements more frequently on television and social media to increase the response of public awareness and intention.
4. Further research needs to be carried out using CRI calculations to deepen each

response process stage by providing more detailed questions.

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