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The Effect of Gain-Loss Framing Information on Risk Attitude during Coronavirus Disease (COVID-19) Pandemic

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***Abstract*— This study aims to identify risk attitude and analyze its changes by presenting information related to COVID-19 pandemic with gain-loss framing. 152 respondents aged 18-23 years, with the status of active undergraduate students or fresh graduates, and stayed in Special Region of Yogyakarta Province, Indonesia, participated in this study. RiBy using lottery choice questionnaire to measure risk attitude in initial condition, it is found that 47% of respondents tend to be risk averse, which is being uncomfortable with risk. 28 selected respondents join the gain-loss framing experiments that present series of video news related to COVID-19 pandemic with predetermined tone (gain or loss). Hypothetical gamble survey based on video news are used to measure risk attitude after the experiment. It is known that gain framing information affects someone to be risk averse, while loss framing information makes someone to be risk seeking or feeling comfortable to any risk in decision making. Media coverage are recommended to use gain framing information to control human behavior and support government's policy in complying health protocols and stay at home during COVID-19 pandemic.**

***Keywords*— *risk attitude,* COVID-19, gain-loss framing**

I. INTRODUCTION

Since the end of 2019, the life of the world has been threatened with the emergence of a new disease called Coronavirus Disease (COVID-19). The discovery of unique symptoms of pneumonia suffered by a person in the Wuhan area, China, was the beginning of the detection of COVID-19 infection [1]. The potential for transmission to humans from animals in this first case causes the COVID-19 virus to be particular concern. The new name Coronavirus Disease (COVID-19) as a disease caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) virus was announced by the World Health Organization (WHO) on 11 February 2020, and it was finally declared as a pandemic on March 12, 2020. As of March 4, 2021, the Government of Indonesia has recorded 1,361,098 positive cases of COVID-19, with details of 1,176,356 people have recovered and other 36,897 people have died [2].

Risk Attitude is defined as a thought response to situational facts or events that are uncertain and bring positive or negative consequences [3]. In general, there are three types of risk attitude, namely risk averse or a person's tendency to avoid risk, risk neutral or the tendency of someone who is not affected by risk in the decision, as well as risk seeking or the tendency of someone who likes risk [4] [5]. In the context of the COVID-19 pandemic, risk attitude is an important factor in controlling people's behavior. The existence of framing or news information framed in a certain tone, both positive and negative, has an influence on changes in behavioral responses [6]. As a contact point between the authorities and the public, the media plays an important role in disseminating information during this pandemic situation, so that people tend to rely on the information obtained from the media before giving a certain response [7].

It is not yet known the type of information that can affect a person's risk attitude to be used as treatment, so that the presentation of information can be manipulated using the concept of gain-loss framing, according to the Prospect Theory by Kahneman and Tversky (1979). Gain-loss framing is a method for framing information with two different types of tone, namely gain (positive tone) and loss (negative tone). In general, someone will tend to make safer decision, because they tend to be risk averse or to avoid risk when obtaining information with gain framing, while loss framing tends to encourage risk seeking or accept uncertain risks in the long term, so they are willing to take riskier decision [5].

The existence of COVID-19 as a form of negative shock has resulted in an increase in risk averse attitude which can hinder consumption and investment of risky assets in society, thus impacting on weakening businesses and the economy [8]. In addition, there is also a panic buying phenomenon which is a natural behavioral response of someone who is anxious about various possible risks that are uncertain in the future, such as difficulty in accessibility or running out of stock of needs [9]. This phenomenon shows the bad impact of a person's risk attitude as a representative form of disturbed decision making, and can lead to other behavioral responses that can harm many parties if not handled further.

This study aims to identify risk attitude and analyse its changing in a person when receiving exposure to information framed in terms of gain and loss related to the COVID-19 pandemic. This research consists of two stages, including the initial stage to identify risk attitude in general using an online questionnaire, then followed by an experimental stage that uses information exposure as a treatment and risk attitude measurement is carried out after receiving the treatment. The results obtained at each stage will be compared to see changes in risk attitude towards each type of information. The findings of this study are expected to be a reference in disseminating more precise information for controlling the risk attitude of society.

II. METHODS

All stages of this research were carried out online due to limitations during the COVID-19 pandemic. The subjects of this study were men and women aged 18-23 years who have

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the status of active undergraduate students and fresh graduates, and were stayed in the Special Region of Yogyakarta, Indonesia. The research was conducted within the period of the COVID-19 pandemic spreading in Indonesia, specifically in October 2020 - January 2021.

A. *Research Initial Stage*

The initial stage of this research is a preliminary study to identify the risk attitude of respondents in general during the COVID-19 pandemic. Measurement of risk attitude was carried out using a lottery choice questionnaire developed by Holt and Laury (2002). In the scenario of this lottery choice questionnaire, a person is faced with 10 paired lottery selection conditions, where there are two options that can be selected and are equipped with a nominal gain that can be won along with various probabilities for each condition. Option A is a lottery choice with a lower risk level, while Option B has a higher risk [10]. The nominal value of lottery acquisition in this study is adjusted to the rupiah exchange rate, where this change is proven not affecting the end result of the risk attitude [11]. The modified results of the 10 paired lottery selection conditions used in this study are shown in Table 1. The $ 1 exchange rate used equals Rp14,100.

Risk attitude classification is determined based on the number of people choosing the safe choice (Option A) over other riskier choices (Option B), as shown in Table 2. The accumulation can then determine the range of r values (coefficient of relative risk aversion). The r value states the degree of risk attitude preference that a person has in making decisions, in this case, the selection of 10 paired lottery conditions. An increase in the value of r will indicate a tendency for higher risk averse attitude, where the determination of this r value follows the following formula 1.

$$U(x) = \frac{x^{1-r}}{1-r} \quad (1)$$

The value of x shows the payoff lottery that someone chose before deciding to change the decision from option A to option B, according to Table 1. The r value obtained will be matched with the risk attitude classification that has been determined as in Table 3.3, with r> 0 indicating the value for risk averse (avoiding risk), r = 0 indicating risk neutral (not affected by risk), and r <0 is the value for risk seeking (liking risk).

The type of risk attitude obtained by this measurement is called pre-treatment data. Furthermore, respondents were classified based on their respective types of risk attitude during the COVID-19 pandemic. Respondents will be randomly selected into two groups, namely the experimental group and the control group. Respondents who are members of the experimental group will participate in the experimental stage of the study, while the control group will not receive any treatment with a one-month follow-up for risk attitude re-measurement.

B. *Research Experimental Stage*

The implementation of the experimental stage adopted from a combination of research by Hindo and Prendes (2011) and Morris (2014). For each treatment, the experiment was carried out applying one session of exposure to the treatment [12]. The experiment was carried out online using the Google Meet platform due to limitations when working for COVID-19 takes place with the concept of online therapy by Morris (2014). The purpose of this experiment is to measure the change in risk attitude that respondents have when receiving information with certain types of framing. Each respondent will participate in two types of experiments with one week time interval, namely the gain framing experiment and the loss framing experiment. The gain framing experiment was carried out by presenting information from a collection of news videos related to the COVID-19 pandemic which tended to have a positive tone, and vice versa for the loss framing experiment. Each experimental session lasts for about 30-40 minutes duration.

TABLE I. MODIFIED TEN PAIRED CONDITIONS OF LOTTERY CHOICE

Option A	Option B
1/10 of Rp 28,000, 9/10 of Rp 22,400	1/10 of Rp 54,000, 9/10 of Rp 1,400
2/10 of Rp 28,000, 8/10 of Rp 22,400	2/10 of Rp 54,000, 8/10 of Rp 1,400
3/10 of Rp 28,000, 7/10 of Rp 22,400	3/10 of Rp 54,000, 7/10 of Rp 1,400
4/10 of Rp 28,000, 6/10 of Rp 22,400	4/10 of Rp 54,000, 6/10 of Rp 1,400
5/10 of Rp 28,000, 5/10 of Rp 22,400	5/10 of Rp 54,000, 5/10 of Rp 1,400
6/10 of Rp 28,000, 4/10 of Rp 22,400	6/10 of Rp 54,000, 4/10 of Rp 1,400
7/10 of Rp 28,000, 3/10 of Rp 22,400	7/10 of Rp 54,000, 3/10 of Rp 1,400
8/10 of Rp 28,000, 2/10 of Rp 22,400	8/10 of Rp 54,000, 2/10 of Rp 1,400
9/10 of Rp 28,000, 1/10 of Rp 22,400	9/10 of Rp 54,000, 1/10 of Rp 1,400
10/10 of Rp 28,000, 0/10 of Rp 22,400	10/10 of Rp 54,000, 0/10 of Rp 1,400

TABLE II. RISK ATTITUDE CLASSIFICATION (HOLT DAN LAURY, 2002)

Number of Safe Choices	Range of Relative Risk Aversion	Risk Preference
0-1	r < -0,95	Highly Risk Loving
2	-0,95 < r < -0,49	Very Risk Loving
3	-0,49 < r < -0,15	Risk Loving
4	-0,15 < r < 0,15	Risk Neutral
5	0,15 < r < 0,41	Slightly Risk Averse
6	0,41 < r < 0,68	Risk Averse
7	0,68 < r < 0,97	Very Risk Averse
8	0,97 < r < 1,37	Highly Risk Averse
9-10	1,37 < r	Stay in Bed

The information presented during the experimental session was in the form of several news videos with topics related to the COVID-19 pandemic. All news videos used are sourced from KOMPAS TV, a digital media that has had the status of "Administration and Factual Verified" since 2018 [14]. In addition, this media is superior to other media with a quality index score for the news program period II of 2019 which has exceeded the standards of the Indonesian Broadcasting Commission [15]. Furthermore, news videos are grouped based on their respective tones, which are determined qualitatively using a Likert scale of 1-5 after watching the news video [16]. The value of the Likert scale obtained will determine the tone of a news, which consists of a negative tone (less than 3), a neutral tone (equal to 3), and a positive tone (more than 3). News positive tone includes motivation and recovery information [6], which was used in gain framing experiment, and vice versa for the news negative tone was used in the loss framing experiment.

Measurement of risk attitude was carried out using a hypothetical gamble survey which was developed in accordance with the Prospect Theory concept by Kahneman

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and Tversky (1979). The hypothetical gamble survey consists of five questions with a tone that is adjusted for each experimental session (gain or loss), and has a similar topic for each news video used. Each question has two answer options consisting of the answer option with a low risk and an answer option that is more risky. Determination of risk attitude is carried out based on the accumulation of answer options chosen by respondents, with a tendency to have a risk averse attitude when choosing more low-risk answer option, and a tendency to be risk seeking when choosing more riskier answer option [5].

The mechanism of the gain framing experiment and the loss framing experiment can be said to be similar, with the only difference was just the news video material presented and the hypothetical gamble survey version used for measuring risk attitude. The treatment was performed by presenting as many as five video related news pandemic COVID-19 with a 15-minute total duration. Five-paired news video topics that were presented related to the COVID-19 pandemic consisted of "the number of COVID-19 cases", "the COVID-19 vaccine", "public transportation during the COVID-19 pandemic", "tourist attractions during the COVID-19 pandemic", and "marriage protocol during the COVID-19 pandemic ". In granting the time lag between each video for 1.5 minutes, respondents were asked to answer one question of hypothetical gamble survey. This measurement would result in risk attitude of respondents for each experiment, which in this study were classified as a data post-treatment. The data would be compared with the pre-treatment data that has been previously owned to find out any changes as a result of the treatment given.

C. *Statistical Analysis*

All statistical analyzes were performed using IBM SPSS Statistics 19.0. The validity test using the Biserial Correlation Point was carried out to ensure that the lottery choice and hypothetical gamble survey questionnaire items were valid. The reliability test was carried out using the Cronbach's Alpha method to ensure the reliability of the questionnaire items . Kolmogorov Smirnov was used to test the normality of the data. The Wilcoxon test was used to determine the difference in risk attitude from the pre-treatment data and post-treatment data for each experiment. The Mann-Whitney test was used to compare risk attitude based on sex and examine the difference of risk attitude between experimental group and control group. The level of significance for statistical analysis was set with a p-value <0.05. The calculation of the minimum sample size and statistical power was carried out using GPower 3.1, with a statistical power parameter of 80% being the ideal size of the research data [17] .

III. RESULTS

A. *Risk Attitude : Initial Stage*

152 respondents aged 18-23 years, with status as active undergraduate students or fresh graduates, and were stayed in the Special Region of Yogyakarta, Indonesia, participated in this study. Number of respondents obtained had met the minimum sample size of 67 respondents. It is known that there were 53 male respondents, while the remaining 99 people were female respondents. In addition, 75% of the respondents were active undergraduate students, while the remaining 25% were bachelor fresh graduates.

Based on the validity test of the lottery choice questionnaire, it is found that 9 out of 10 items were valid. However, the one remaining item was not excluded from the study because it could interfere with risk attitude analysis. Moreover, lottery choice has also been popular as an instrument to determine a person's risk attitude [18]. On the other hand, the reliability test carried out on this questionnaire resulted in a Cronbach's Alpha value of 0.757. An item is said to be reliable if the value reached at the minimum of 0.6-0.7 [19], so it was concluded that the items of lottery choice questionnaire were reliable.

The risk attitude classification is determined based on the accumulation of the number of low-risk options selected for each paired lottery conditions (number of safe choices), as shown in Table 2. The results of the risk attitude classification are summarized in Table 3 below. Risk neutral was the type of risk attitude most owned by respondents, with a percentage of 22%. This classification were then simplified into three general categories of risk attitudes based on the coefficient of relative risk aversion, namely risk averse, risk neutral, and risk seeking [10]. The results of the final classification of the risk attitude are shown in Table 4 below.

TABLE III. RISK ATTITUDE CLASSIFICATION IN INITIAL CONDITION

Risk Attitude Classification	Number of Respondents	Percentage
Highly Risk Loving	4	2%
Very Risk Loving	11	7%
Risk Loving	32	21%
Risk Neutral	33	22%
Slightly Risk Averse	15	10%
Risk Averse	26	17%
Very Risk Averse	17	11%
Highly Risk Averse	6	4%
Stay in Bed	8	6%
Total	152	100%

TABLE IV. FINAL RISK ATTITUDE CLASSIFICATION IN INITIAL CONDITION

Risk Attitude Classification	Number of Respondents	Percentage
Risk Seeking	47	30.9%
Risk Neutral	33	21.7%
Risk Averse	72	47.4%
Total	152	100%

Based on Table 4 , it is found that risk averse was the type of risk attitude most commonly owned by respondents, with a percentage of 47.4% of all respondents. Furthermore, 30.9% of respondents were found to have a risk seeking attitude, while the remaining 21.7 % were known to be risk neutral attitude. Descriptively, it can be said that active undergraduate students or fresh graduates tend to be risk averse, or avoid uncertain risks during the COVID-19 pandemic.

Next, the classification of risk attitude of respondents is sorted by gender, as shown in Fig. 1 below.

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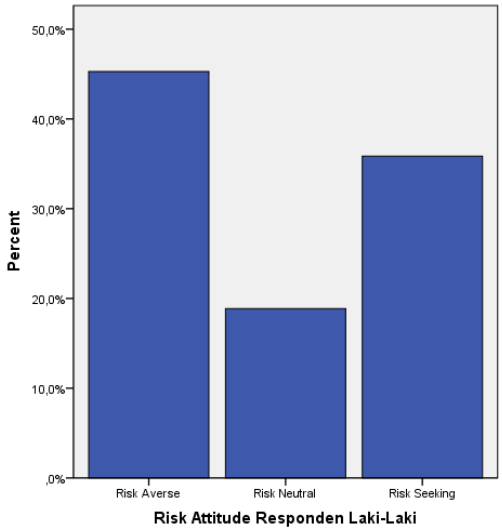
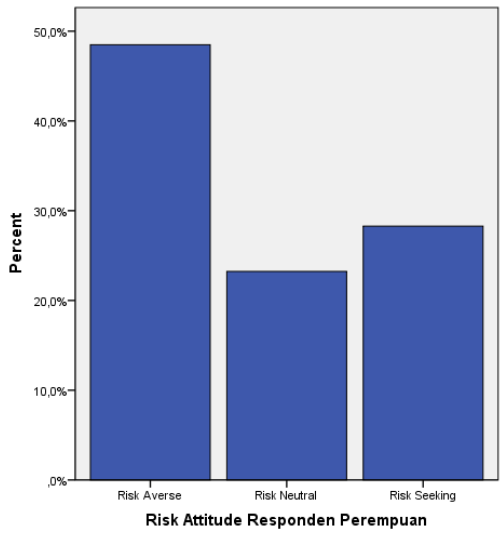


(a)



(b)

Fig 1. Risk Attitude Classification of Respondents Based on Gender; (a) Risk Attitude of Male Respondents; (b) Risk Attitude of Female Respondents

Based on gender, it can be identified that men generally had a risk averse attitude with a percentage of 45.3%, then followed by a risk seeking attitude of 35.8%, and as much as 18.9% tend to be risk neutral. On the other hand, risk averse also dominate the respondents were female with a percentage of 48. 5%, followed by risk-seeking with a percentage of 28. 3 %, and the remaining 23.2% were likely to be risk neutral.

Prior to further statistical analysis, the normality test with the Kolmogorov Smirnov reference was carried out on risk attitude data. As a result, a significance value of 0.001 was obtained, which is below the alpha value limit of 0.05, so that the data was considered not normally distributed and statistical analysis was continued with non-parametric methods. The Mann-Whitney test was conducted to determine whether there was a significant difference in the risk attitude of respondents classified according to gender. By using an alpha value of 0.05, a significance value of 0.506 was obtained. The results obtained were above the alpha value, so it can be interpreted that there is no significant difference in the risk attitude of respondents if classified according to gender during the COVID-19 pandemic.

B. *Risk Attitude : Initial Stage vs Experiment Stage*

56 out of a total of 152 respondents were selected to participate in this stage. These selected respondents were divided into two groups, such as the experimental group and the control group, which was consisted of 28 respondents for each group. Respondents in the experimental group will take part in the gain framing experiment and the loss framing experiment, while the control group respondents will not receive any treatment. Each group was consisted of ten respondents with the type of risk averse, eight people with risk neutral, and ten people with risk seeking. Based on calculation with GPower software, the statistical power value was 81.81% and the minimum sample size was 17 respondents per group, so that the number of respondents participating at this stage can be said to be adequate.

Based on the results of validity test of the gain and loss version of the hypothetical gamble survey, it was found that all items were valid. The reliability test for the two versions of the questionnaire resulted in a value of 0.674 and 0.614 respectively, so that those were said to be reliable. Based on the Kolmogorov Smirnov test, a significance value of 0.001 was obtained so that the data were not normally distributed. Based on the Wilcoxon test conducted on the control group, the significance results were above the alpha value of 0.05 for all types of risk attitude, so it can be said that there was no difference in risk attitude towards respondents when they did not receive any treatment.

Based on the result of the gain framing experiment on ten respondents who were risk averse as an initial condition, there were three respondents who experienced any change from risk averse to risk seeking. The Wilcoxon test was conducted to identify whether there was a significant change in risk attitude among respondents who were risk averse in the conditions before and after conducting the gain framing experiment. Based on the calculation carried out with an alpha value of 0.05, a significant result of 0.250 was obtained. The result obtained was above the alpha value, so it can be interpreted that there was no significant difference in risk attitude among respondents who were risk averse in the conditions before and after performing gain framing experiment. Gain information related to the COVID-19 pandemic is able to affect the risk attitude of a person who is risk averse.

Based on the result of the gain framing experiment on eight respondents who were risk neutral as an initial condition, there were five respondents who experienced any change from risk neutral to risk averse and three respondents who experienced any change from risk neutral to risk seeking. The Wilcoxon test was conducted to identify whether there was a significant change in risk attitude among respondents who were risk neutral in the conditions before and after conducting the gain framing experiment. Based on calculations carried out with an alpha value of 0.05, a significant result of 0.727 is obtained. The result obtained was above the alpha value, so it can be interpreted that there was no significant difference in risk attitude among respondents who were risk neutral in the conditions before and after performing gain framing experiments. Even though, gain information related to the COVID-19 pandemic is

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descriptively able to affect the risk attitude of a person who is risk neutral to turn into a risk averse.

Based on the result of the gain framing experiment on ten respondents who were risk seeking as an initial condition, there were six respondents who experienced any change from risk seeking to risk averse. The Wilcoxon test was conducted to identify whether there was a significant change in risk attitude among respondents who were risk seeking in the conditions before and after conducting the gain framing experiment. Based on calculation carried out with an alpha value of 0.05, a significance result of 0.031 was obtained. The result obtained was below the alpha value, so it can be interpreted that there was a significant difference in risk attitude among respondents who were risk seeking in the conditions before and after performing gain framing experiment. Gain information related to the COVID-19 pandemic is able to affect the risk attitude of a person who is risk seeking to turn into risk averse.

Changes in the risk attitude of respondents after participating in the gain framing experiment are summarized in Table 5 below.

TABLE V. CHANGES IN RISK ATTITUDE AFTER GAIN FRAMING EKSPERIMENT

			Post Treatment Loss Framing		*Total*
			Risk Averse	*Risk Seeking*	
Pre Treat-ment	*Risk Averse*	*Amount*	*4*	*6*	*10*
		Percentage	*40%*	*60%*	*100%*
	Risk Neutral	*Amount*	*2*	*6*	*8*
		Percentage	*25%*	*75%*	*100%*
	Risk Seeking	*Amount*	*5*	*5*	*10*
		Percentage	*50%*	*50%*	*100%*

Based on the result of the loss framing experiment on ten respondents who were risk averse as an initial condition, there were six respondents who experienced any change from risk averse to risk seeking. The Wilcoxon test was conducted to identify whether there was a significant change in risk attitude among respondents who were risk averse in the conditions before and after conducting the loss framing experiment. Based on the calculation carried out with an alpha value of 0.05, a significance result of 0.031 was obtained. The result obtained was below the alpha value, so it can be interpreted that there was a significant difference in risk attitude among respondents who are risk averse in the conditions before and after performing loss framing experiment. Loss information related to the COVID-19 pandemic is able to affect the risk attitude of a person who is risk averse to turn into a risk seeking .

Based on the result of the loss framing experiment on eight respondents who were risk neutral as an initial condition, there were two respondents who experienced any change from risk neutral to risk averse and six respondents who experienced any change from risk neutral to risk seeking. The Wilcoxon test was conducted to identify whether there was a significant change in risk attitude among respondents who were risk neutral in the conditions before and after conducting the loss framing experiment. Based on the calculation carried out with an alpha value of 0.05, the result obtained was significant at 0.289. The result obtained was above the alpha value, so it can be interpreted that there was no significant difference in risk attitude among respondents who were risk neutral in the conditions before and after performing loss framing experiments. Even though, loss information related to the COVID-19 pandemic is descriptively able to affect the risk attitude of a person who is risk neutral to turn into a risk seeking.

Based on the result of the loss framing experiment on ten respondents who were risk seeking as an initial condition, there were five respondents who experienced any change in risk seeking to risk averse. The Wilcoxon test was conducted to identify whether there was a significant change in risk attitude among respondents who were risk seeking in the conditions before and after conducting the loss framing experiment. Based on the calculation carried out with an alpha value of 0.05, the result obtained was significant at 0.063. The result obtained was above the alpha value, so it can be interpreted that there was no significant difference in risk attitude among respondents who were risk seeking in conditions before and after performing loss framing experiment. Loss information related to the COVID-19 pandemic is not able to affect the risk attitude of a person who is risk seeking.

Changes in the risk attitude of respondents after participating in the loss framing experiment are summarized in Table 6 below.

TABLE VI. CHANGES IN RISK ATTITUDE AFTER LOSS FRAMING EKSPERIMENT

			Post Treatment Gain Framing		Total
			Risk Averse	*Risk Seeking*	
Pre Treat-ment	*Risk Averse*	Amount	7	3	10
		Percentage	70%	30%	100%
	Risk Neutral	Amount	5	3	8
		Percentage	62,5%	37,5%	100%
	Risk Seeking	Amount	6	4	10
		Percentage	60%	40%	100%

C. *Managerial Implications*

This study was conducted to identify risk attitude and analyse its changing in a person when receiving exposure to information framed in terms of gain and loss related to the COVID-19 pandemic. In addition, this study also examines whether there is a difference of risk attitude when it was classified by gender. The results obtained can be a reference as well as recommendations for related parties to formulate certain strategies in dealing with the COVID-19 pandemic situation in Indonesia.

Risk averse becomes the most commonly identified from active undergraduate students or fresh graduates when pandemic COVID occurs, dengan persentase sebesar 47.4% dari keseluruhan responden. Risk averse is an attitude of avoiding risk due to a high sense of discomfort over the existing uncertainty, so that a person tends to make decisions with lower risks. Based on gender, it is found that there was no significant difference in risk attitude between men and women during the COVID-19 pandemic, with the majority of men and women were likely to be risk averse.

This study found that gain-loss framing information affects changes in risk attitude during the COVID-19 pandemic. Gain information related to the COVID-19 pandemic makes a person more likely to make decisions that are at lower risk so that they will be risk averse in the long term, while loss information related to the COVID-19 pandemic makes someone more likely to make higher risk decisions and they will be risk seeking in the long term. These results are in accordance with the theory developed by Kahneman and Tversky (1979) regarding Prospect Theory. However, the results found are contradictory to Angrisani *et al*. (2020) who found that there was no significant change in risk attitude towards shocks in terms of social and economic life caused by this pandemic.

This difference in results is based on Angrisani *et al.* (2020) which only compares the risk attitude condition before and after the occurrence of COVID-19 without considering the effect of exposure to news information received by the public. A risk seeking attitude is crucially needed for professional stock players as well as economic students when making decisions regarding investment in the economic sector when the lockdown situation is begun and when the lockdown has ended [8]. However, health is the main thing that should be prioritized, where someone is recommended to avoid the uncertainty of a risk or tend to be risk averse during the COVID-19 pandemic, so that it will encourage an increase in health-protective behavior and avoidant behavior [6].

Health-protective behavior is carried out to prevent the risk of contracting certain diseases [20], in this case such as the 3M Protocol (washing hands, wearing masks, and maintaining distance) which is conveyed by the government. On the other hand, avoidant behavior aims to avoid high risks in the form of indications, which can come from environmental conditions and certain individuals [21], such as the behavior to stay at home if there is no particular interest during the COVID-19 pandemic. When viewed from the aspect of mobility, someone who is risk averse tends to adjust more easily to stay at home during the COVID-19 pandemic, while someone who is risk seeking tends to be the opposite because they focus on their own activity as main priority [22]. Therefore, it is recommended that the media convey information related to the COVID-19 pandemic in the form of gain framing to encourage a risk averse attitude from the public, so that it can be in line with the government's appeal regarding policies in complying with health protocols.

IV. CONCLUSIONS

Based on the research conducted, it can be concluded that risk averse is the most common type of risk attitude with a percentage of 47% of respondents, so it can be said that active undergraduate students or fresh graduates tend to avoid risk due to uncertainty during the COVID-19 pandemic. When viewed by gender, it is known that there was no significant difference in risk attitude between men and women during the COVID-19 pandemic, with most men and women are likely to be risk averse. Gain information related to the COVID-19 pandemic makes a person more likely to make decisions that are at lower risk so that they will be risk averse in the long term, while loss information related to the COVID-19 pandemic makes someone more likely to make higher risk decisions and they will be risk seeking in the long term. This research is expected to be a reference for the media to disseminate information related to the COVID-19 pandemic in the form of gain framing, so that it can be in line with government advice regarding policies in complying with health protocols.

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