ENDOWMENT EFFECT DURING COVID-19 IN INDONESIA BEHAVIORAL STUDY ON UNIVERSITY STUDENT'S PERCEPTION FOR MEDICAL MASK PRICE

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Abstract - Behavioral study about how people make decision becomes very popular nowadays. Many various researches address a problem or an error in people action. One of the errors that would like to be explored in this article is endowment effect. Endowment effect explains that people perceive fairness based on prior knowledge or a "frame" that put into their mind. This would be a problem because it could cause inconsistency in people action. Purpose of this research is to detect the endowment effect on university student when COVID-19 is taking place. The issue that would like to be explored is medical mask price increase during this outbreak. Simple survey on two groups of university students is conducted to detect this endowment effect. If the response from research respondents is the same on both groups then there is no endowment effect. Independent t-test is applied to test research hypothesis and validate the result. The finding is quite surprising; there is inconsistency between descriptive and hypothetical result. Most of respondents agree that the price is actually tradable at Rp 4,000 (it increases from normal price and about 0.27 USD) but they are reluctant to say this action fair. Some discussion and analysis are performed to expand this finding.

1. INTRODUCTION
1.1 Research Motivation

COVID-19 outbreak has started in December 2019 and the first case of this disease found in China. This pandemic has spread gradually through various nations and caused significant impact on world economic. Despite various preventive actions and airport check, finally this disease reached Indonesia on March 2020. Indonesia government announced the first case of COVID-19 on March 2nd 2020 and the number of confirmed cases at that time was 2 persons. It takes about 2 months for COVID-19 to infect 4,000 Indonesia citizens and this number is predicted keep growing until the end of June 2020. This figure below shows the trend for COVID-19 patients in Indonesia from March 2nd to April 13th 2020.
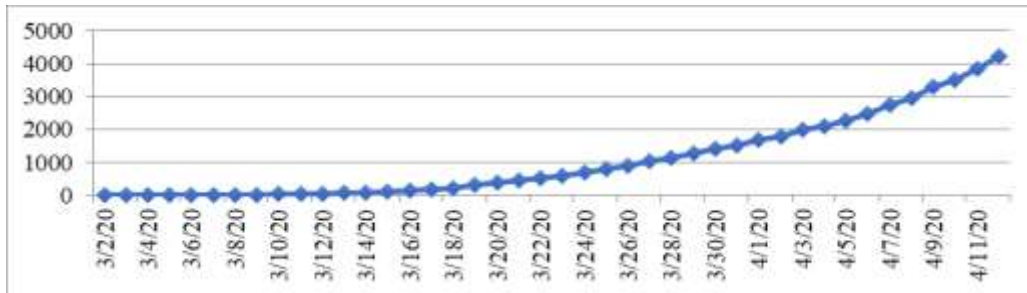
Figure 1. The Number of COVID-19 Confirmed Patients in Indonesia

Based on the published number of confirmed patients, most of people normally would anticipate the virus with proper medical equipment such as medical mask. Before COVID-19 became international outbreak, normally medical mask would be sold less than Rp 1,000 per piece but after the outbreak, the price of medical price increase drastically. In the most of classical economic textbooks, the law of demand and supply could help people to understand how price of goods or services are determined. According to (Mankiw, 2015), market is a place of buyers and sellers trade for a certain good or service. In the market, when quantity of demand meets quantity of supply then price is settled for both parties. Price also reflects production cost of the product or service, which consist of material cost, labor cost and overhead cost. But classical economic sometimes failed to explain how the price increased sharply when extraordinary event occurred (in this case the outbreak of COVID-19). In certain case, expectation also shapes the price, especially when the good or service is needed. For example, the price of an umbrella might be increase in rainy season because people usually need umbrella in this season. So, in particular, expectation is considered as behavioral aspect that arguably could influence the price of good or service. The issue that would like to be addressed in this research is people expectation and perceived fairness on price of good could be affected by **endowment effect**.

In simple word, people perceive fairness depends on how it is framed. To prove this statement, many behavioral economists have conducted various experiments regarding to this issue. Actually, this topic was summarized by (Thaler, 2016) in his book Misbehaving and from this literature, many phenomena were detected as decision-making error. One of example in this book was a bottle of Bordeaux wine. The story about endowment effect started with wine-loving economist who bought Bordeaux wine at low price. Initially, the economist owned this bottle of wine for $10 and then later a same bottle now appreciated for an auction for $200 (Kahneman, Knetsch, & Thaler, Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias, 1991). So, a question arises, if you were the economist, would you like to sell your Bordeaux wine for $200? Or perhaps would you like to sell it for the price higher than $200? In the end, the economist neither sold nor bought additional bottle at that price. He simply enjoyed his bottle of Bordeaux until the final drop of wine. Based on previous research, this anomaly was considered as endowment effect. People usually ask more to give up an item in their possession than the initial cost to acquire it. In psychological study, loss aversion offers an explanation that people's disutility that is caused by giving up their possession is greater than the utility when obtain it. Endowment effect also causes another impact on how people judge behavior fairness. Based on (Kahneman, Knetsch, & Thaler, Fairness as a Constraint on Profit Seeking: Entitlements in the Market, 1986) survey on Toronto residents, the result supported that perceived losses were more painful than gains. However, under "specific circumstance" (COVID-19 pandemic), does this "endowment

effect" still exist and cause different perception among the people? During this pandemic, most people should agree that "mask" is important product to protect themselves from the virus. Therefore, the price of the mask should be acceptable (fair enough) to be increased (at least within acceptable range). This research would like to contribute a knowledge on people perception on price (empirically), so management study could consider psychological aspect in determine the price during the pandemic.

1.2 Research Problem

This research is based on Kahneman and teams works on people perception and decision making. They developed some series of questions to ask people about their judgment on certain economic action. One of question that asked in that research was:

Question 1a: A shortage has developed for a popular model of automobile, and customers must now wait two months for delivery. **A dealer has been selling these cars at list price**. **Now the dealer prices this model at $200 above list price.**

Question 1b: A shortage has developed for a popular model of automobile, and customers must now wait two months for delivery. **A dealer has been selling these cars at a discount of $200 below list price**. **Now the dealer sells this model only at list price.**

For each question, people were asked about their perception whether the action was fair or somewhat unfair. Interestingly, both questions, in mathematical expression have the same amount of outcome; it increased the price for $200. But the different was on the framing that was stated in bold sentences. The result found that people thought unfair for question 1a (about 71%) and fair for question 1b (58%). This initial finding suggests that there is a problem in people consistency on judging a fairness on economic action (price increase). For further elaboration on endowment effect, Kahneman and teams conducted another research with coffee mug as experiment token. On this experiment, the participants were randomly given a mug. As the result, half of participants had a mug while the others did not have it. After that the participants were asked how much they willing to sell the mug (for participants who owned a mug) and how much they willing to buy the mug (for the others). Based on Coase theorem, half of the mugs supposed to be traded by the participants. Unfortunately, the result contradicted the Coase theorem, the participants who possessed a mug were reluctant and valued their mug very high while the others (who did not owned any mug) were less interested to buy and valued it very low (Kahneman, Knetsch, & Thaler, Experimental Tests of the Endowment Effect and the Coase Theorem, 1990). Then, this research would like to explore the effect of endowment under COVID-19 pandemic situation. During this pandemic, people should show consistency on valuing mask price, as it becomes very valuable during this pandemic.

2. LITERATURE REVIEW
2.1 Endowment Effect

The finding from this endowment effect phenomenon has led to various behavioral experiments in future studies. Finding of behavioral biases could be found in primates, chimpanzees. Research from (Brosnan, Jones, Gardner, Lambeth, & Schapiro, 2012) examined this bias on chimpanzees. There were 20 adult chimpanzees (50% male and 50% female) were observed in this research. These chimpanzees were skilled enough to exchange

an object with human for a food reward. To detect endowment effect on these primates, the authors divided the experiment into three treatments (absent treatment, Unobtainable treatment and Obtainable treatment). In all three treatments, predetermined tools were given to participants so it could access their food reward. These predetermined tools consist of a sponge that could help chimpanzees to obtain juice and a dipstick to obtain oatmeal. The result was a strong desire for food on these chimpanzees was detected on obtainable treatment. Normally, on absent condition, the chimpanzees were least likely to keep the predetermined tools.

This finding was also found on unobtainable condition. However, on obtainable treat, the chimpanzees showed very high tendency to keep the tools, which implied the existence of endowment effect. Some study on sequential game also conducted by (Dong & Zhang, 2016) to detect the endowment effect. This research consisted of three-stages dynamic game with all available information between the players. After several observations on player interaction on this game, this research concluded endowment effect exists on the owner of the property. The result was this player fights fiercely for their property. Scope of endowment effect also could be found in preschool children. The finding of this endowment effect could be very strong on western society with independent self-construal. Based on the investigation of (Hood, Weltzien, Marsh, & Kanngiesser, 2016) on 120 children, this endowment effect could be induced on them. This research explored children behavior when exposed with self-focus task. The result from three studies found after preschool children induced with self-focus task, the valuation of toy was higher and as result the children were reluctant to trade their toys. This endowment effect also cost the player who owned the property higher on contest expense.

Other games also conducted by (Drouvelis & Sonnemans, 2017) to explain the endowment effect. This research designed an experiment to capture willingness to pay (WTP) and willingness to accept (WTA) of the research subject. To measured WTP and WTA, BDM (Becker-DeGroot-Marchak) procedure was applied in this experiment. Then the second part of experiment was lotteries. In both parts, WTA and WTP values were compared and it could help to understand the size of endowment effect in decision-making situation. Endowment effect was found in both the first part of experiment and also the lotteries part. It seemed that endowment effect also caused by optimism. Endowment effect was observed on consumer and/or producer surplus perspective by (Ashworth, Darke, McShane, & Vu, 2019). In this research, the authors argued that an exchange (transaction) would be possible if it reached minimum net gain for both seller and buyer. Four experiments were conducted to test this argument and the result was in line with previous research, the owners valued the item more than who did not owned it. There were ninety-three students participated in this experiment and ANOVA was applied to analyze the participants valuation. Based on comparison between four experiments condition, this research also suggested that valuation on certain good were consistent with exchange surplus. Only exchange position could determine the valuation on the last experiment.

In tourism industry, the endowment effect also could be found on the souvenirs value. Based on 3,325 tourists who visited Israel, their perception on souvenirs value were constructed by the religious believe and its meaningfulness rather than its utility. The study also found Christian tourists showed very low endowment effect on Christian souvenirs, while the Jewish tourists exhibited the opposite (Shtudiner, Klein, Zwilling, & Kantor, 2019). Another research (Collard, Walford, Vernon, Itagaki, & Turk, 2020) compared multicultural participant on endowment effect experiment. In this research, Western and East Asian participants valuation on certain good were compared. This research conducted two

experiments on endowment effect. The first experiment applied two factors experiment on thirty-two undergraduate students of University of Bristol. The participants were asked to value eight common items without any ownership context. The result initially showed no difference in value between the samples. When the experimenters started to add ownership context on the items, the result showed different thing. Participants who were told that owned the item, valued it more than the others who did not owned it. The second experiment was tested on two groups of samples with different cultural background (UK and Japan). Based on paired-sample t-test the result suggested that UK samples showed strong endowment effect while on the other hand Japanese participant indicated no significant endowment effect.

2.2 Hypothesis Development

There are many researches and approaches on how to detect the endowment effect. This topic no longer an exclusive issue on psychology studies but opens to various studies and fields. In this article, author tries to replicate Kahneman puzzle (Kahneman, Knetsch, & Thaler, Fairness as a Constraint on Profit Seeking: Entitlements in the Market, 1986) on how university students perceived the fairness of medical mask price under COVID-19 crisis. Perhaps during the crisis, the fairness of medical mask price could be adjusted to the importance of the items during this pandemic. This article offers a novelty on behavioral economics study in Indonesia as the first attempt to bring endowment effect empirical study during COVID-19 outbreak. Research problem that would like to be answered in this article is does endowment effect exist when the crisis occurred (COVID-19 outbreak)? People should answer fair for the price increase of medical mask during this pandemic as compensation for the mask usefulness, so there is no endowment effect exist when an extraordinary event occur. Therefore, research hypothesis that would like to be tested is:

H0: There is no difference between two group of university student's perception on medical mask price increase during COVID-19 (No Endowment Effect)

Ha: There is a difference between two group of university student's perception on medical mask price increase during COVID-19 (Endowment Effect Exist)

3. RESEARCH METHODOLOGY

This research conducts an online survey on two groups of university students in Indonesia. There are two groups of students, one is from retail management department and the other is hospitality department. Currently, both student groups are enrolling at author class and before survey is conducted, all of them are asked about their willingness to participate in this research. All respondents remain anonymous and only gender and age are asked as their demographic data. Respondents also are told briefly about research topic and purpose. After that the respondents only need to fill online questionnaire without further guidance. Some questions are designed to ask respondents perception on certain economic action (in this case, the increase in medical mask price). This research uses convenient sampling method to gather necessary data regarding to research objective, so the registered students from researcher class is choosen. Author designs two different research questionnaires with different framing question based on (Kahneman, Knetsch, & Thaler, Fairness as a Constraint on Profit Seeking: Entitlements in the Market, 1986) with a little modification. Based on previous research, the structure for both questionnaires supposed to be the same, only at final question, one group will be asked with PQ1 and the other group will be asked with PQ2. The idea behind this method was people are expected to be logic and rational. Therefore, whatever the framing is given, both groups should response similarly at the final question. To set the mask price range, some observations on e-commerce website such as Shoppee and Tokopedia are

conducted. Prior to COVID-19 outbreak, some sellers set the price really higher than it should be and based on researcher experience on buying medical mask, the normal price supposes to be around Rp 1,000 (around USD 0.07). Further detail about questionnaire could be found in this table below:

Table 1. List of Questions

Question		Possible Answer:
D1	What is your gender?	Male	Female
D2	What is your age?	Not Specific
D3	Do you own a medical mask?	Yes	No
For those who answer Yes on D3		
Q1a	How many medical masks do you have?	Not Specific
Q2a	If I want to buy your mask, how much the prices do you willing to sell?	1,000 per pcs 2,000 per pcs 4,000 per pcs 8,000 per pcs 16,000 per pcs 32,000 per pcs
For those who answer No on D3		
D4	Do you have a plan to buy a medical mask?	Yes	No
	For those who answer Yes on D4	
Q1b	How many masks do you need?	Not Specific
Q2b	If I want to sell a mask, how much the prices do you willing to buy?	1,000 per pcs 2,000 per pcs 4,000 per pcs 8,000 per pcs 16,000 per pcs 32,000 per pcs
For those who answer No on D4		
Q1c	In your opinion, how much the prices should be charged by the seller during this COVID-19 outbreak?	1,000 per pcs 2,000 per pcs 4,000 per pcs 8,000 per pcs 16,000 per pcs 32,000 per pcs
Final question for all respondents		
PQ1	During this COVID-19 outbreak, some medical masks have been scarce in various stores and pharmacies. When you visit A store, luckily the store still has these masks stock. **Usually A store sells this medical mask for normal price but now it sells the mask above the normal price**. In your opinion, does the action of A store is fair?	Fair	Unfair For Group 1
PQ2	During this COVID-19 outbreak, some medical masks have been scarce in various stores and pharmacies. When you visit A store, luckily the store still has these masks stock. **Usually A store sells this medical mask for discounted price but now it sells the mask at the normal price**. In your opinion, does the action of A store is fair?	Fair	Unfair For Group 2

For further explanation on how the flow of question, the respondents would answer the research questionnaire according to this flow chart:
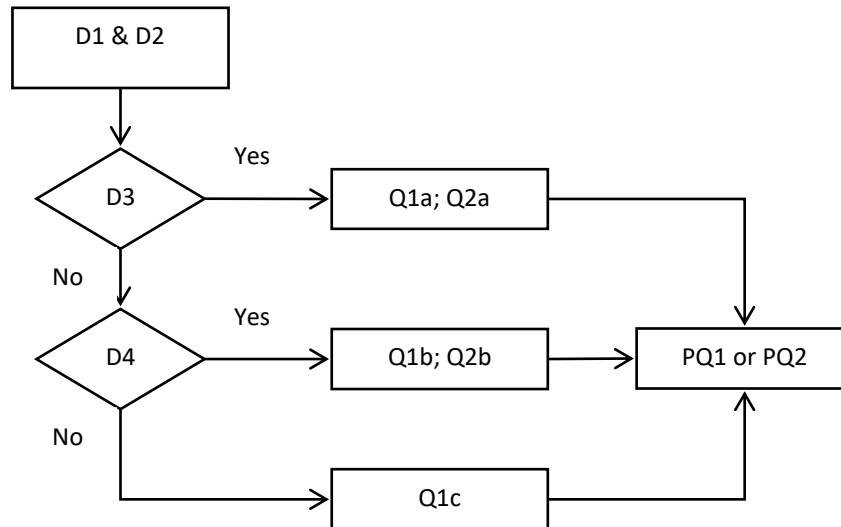
Figure 2. Flow Chart on How Research Questionnaire would be answered

Firstly, Group 1 (Retail Management Department) received a link for online questionnaire with PQ1 as the final question while Group 2 (Hospitality Department) received a link for a questionnaire with PQ2 as the final question. Both groups are asked with question D1, D2 and D3. Then, the response from D3 question would be led respondent to different section of survey. For instance, the respondent who answered D3 with Yes, will be taken to Q1a and Q2a question while the other will be taken to D4 question. The purpose of this action is to split the respondents who owned the medical mask and who did not. These respondents will act as seller and asked about their willingness to sell their current mask (because currently they owned the medical mask). To capture the willingness to buy, author proceeds with the other respondents. The respondents who answer D4 question YES will be taken to Q1b and Q2b question and the rest will be taken to Q1c. On this section, the questionnaire will ask their willingness to buy for medical mask (because they did not own any medical mask now). Both groups will follow this procedure to find who will be the seller and the buyer. With this method respondents were assigned to be a seller or buyer based on the ownership of medical mask. The final question served as framing question. In essence, these final questions (PQ1 and PQ2) are the same (at least in mathematical way), but it has different framing at the beginning. Group 1 would be asked with PQ1 and Group 2 would be asked with PQ2. The result from PQ1 and PQ2 supposed to be the same if there is no endowment effect. Currently, there is no reference on endowment effect based on Indonesia cases. This research method replicated the approach from (Kahneman, Knetsch, & Thaler, Experimental Tests of the Endowment Effect and the Coase Theorem, 1990) on the framing effect.

The response from final question (PQ1 and PQ2) would be analyzed and compared using independent t-test on SPSS. Before that, the response will be inputted as dummy value (0 for Unfair and 1 for Fair) in SPSS. Independent t-test is chosen as statistic tool to compare the means from two independent groups (in this case Group 1 from retail management students and Group 2 from hospitality students).

4. RESULT AND DISCUSSION
4.1 Descriptive Result

In summary, this research obtained 61 respondents, which consist of 34 respondents for first group and 27 respondents for second group. Demographic information from two groups is summarized in this table below.

Table 2 Demographic Description from the Samples

Gender / Age	10 - 20 Years Old	21 - 30 Years Old	Total Gender Group
Men	24	1	25
Women	34	2	36
Total Age Group	58	3	61

There are 25 men and 36 women who participate in this research. Most of them are in the age group of 10-20 years old (about 58 respondents). Prior to this finding, most of respondents have similar demographic (age) background so the way their thinking also should be the same.

Table 3 Results from Question Q1a and Q2a for Respondents Willingness to Sell

Prices	Group 1	Group 2
1,000	1	5
2,000	3	5
4,000	10	5
8,000	6	1
32,000	5	1
n	25	17

Question Q1a and Q2a are used to detect willingness to sell from the respondents who owned medical mask. Most of respondents agree that they could sell their medical mask for Rp 4,000 (USD 0.27) per item. If the normal price of medical mask is Rp 1,000 (USD 0.07) per item (which mean Rp 50,000 [USD 3.40] per box), then respondents actually ask about 4 times more than the price before COVID-19. Further discussion would be elaborated in chapter 4.2.

Table 4 Results from Question Q1b, Q2b, and Q1c for Respondents Willingness to Sell

Prices	Group 1	Group 2
1,000	2	3
2,000	2	2
4,000	5	4
8,000	0	1
32,000	0	0
n	9	10

For question Q1b, Q2b, and Q1c, the result shows willingness to sell from the respondents who did not own medical mask. From the buyer perspective most them agree to buy medical mask for Rp 4,000 (USD 0.27) per item. Interestingly, this price match with asked price from the sellers (the other respondents from seller perspective). It seems that during COVID-19 the equilibrium price of medical mask adjusts up to Rp 4,000 (USD 0.27) per piece. Further analysis would be needed from this finding and could be found in chapter 4.2.

The main question in this research is about respondent's perception on price increase of medical mask. For the first group, the final question in survey (please refer to PQ1) ask about their opinion regarding to the fairness of price increase if the store initially sells the mask for normal price. In contrast, the other group also was asked the same question (please refer to PQ2) with different frame, the store initially sells the mask at discounted price. The result could be found in table 4 below.
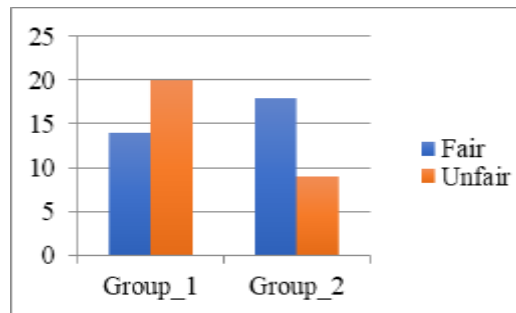

Figure 3. Bar Chart for Respondent's Fairness Perception Between Group 1 and Group 2

Table 5 Results for Statistical Test

Statistical Test	F or t test	sig
Levene's Test for Equality of Variance	(F) 1.538	0.220
Independent t-test for **equal variance**	(t) -2.013	0.049*

To ensure statistical validity from this finding, independent t-test is applied for the student's response on the final question and compared between the two groups. At the first step, author applies Levene's test to check variance equality, and the result confirms variance of the data are equal. The value for F statistic is 1.538 with p-value 0.220. After that, author proceeds to independent t-test with equal variance assumption, then t statistic shows -2.013 with p-value 0.049. This result implies that there is a difference between group's responses on the fairness of the action.

4.2 Discussion
Interestingly, the result from descriptive part contradicts the statistical test for respondent's opinion. On the first part of the result, it shows most of medical mask owners and non-owner (sellers and buyers) agree the price should be at Rp 4,000 per mask (or USD 0.27). If this price compares with the initial price before COVID-19, it is clear that it increases almost 4 times more than the normal price. To put this into perspective, normally a box of medical mask would be sold for Rp 50,000 (or USD 3.40) per box (with 50 medical masks in single box), then during COVID-19, the price for single box increases to Rp 200,000 (or USD 13.58). Based on this initial finding, author concludes that price of the medical mask should be acceptable (or fair enough) if it is around Rp 4,000 (USD 0.27). So, on the final question, despite any framing would be given, all the respondents should be agreed that any action that lead to price increase should be fair. Unfortunately, not all of them agree on this. To prove this little experiment under valid statistical testing, the response from both groups compare using independent t-test. And again, independent t-test validate author hypothesis that there is indeed a difference between group's responses on the fairness of the action. This finding leads to several questions and discussion on how people valuing the item and why there is an inconsistency in their behavior.

Firstly, author addresses a tendency to underestimate the small number. People tend to miscalculate the real number if they are presented with small number. In the real world, credit card transaction could serve as good example for this phenomenon. The price of new smartphone is Rp 24,000,000 (USD 1,630) and consumers could buy it with 12 times installment. Consumers just need to pay 2,000,000 (USD 136) per month while their salary actually Rp 5,000,000 (USD 340) per month. This installment trick helps customers feel that this new smartphone seems affordable for them. It is even worse if customers could buy with 24 times installment, it only cost Rp 500,000 (USD 34) per month. In this research, the increase of Rp 3,000 (USD 0.20) for a medical mask looks very small and not significant in nominal but if the students calculate it with the percentage then the result would be 400%. Another interesting phenomenon that still relevant with this is "illusion number". Aside from credit installment, another thing that could make people spend their money on "irrelevant item" is promotional price with a tag "Rp 3,999" (USD 0.27). People usually fail to recognize that the real cost is Rp 4,000 less 1 rupiah. What people see in this "illusion" is the price Rp 3,000 (USD 0.20). The failure on small number or illusion number could be caused by human's mind system. In the book (Kahneman, Thinking, Fast and Slow, 2013), psychologically people embedded with fast system, which work unconsciously and help human to solve the problem faster without any mental effort. But sometimes this system leads to an error in human decision-making. This error is caused by bounded rationality, which explains people judgment and decision are limited to their own knowledge and cognitive limitation of their mind. Another extensive research from (Ariely, Behavioural Economics Save My Dog, 2015) and (Ariely & Kreisler, Dollars and Sense, 2017) adding further finding about this error and even expand the scope of research on how people spend their money and fail to identify the real value of the goods. Therefore, consumers should be very careful to determine the real value of the items.

Secondly, how to help people or consumers make better decision, especially on valuing a good? This research found that endowment effect does exist regardless of outbreak condition. In simple final question, two groups of students with the same background behave differently. Some suggestions actually have been offered by (Ariely & Kreisler, Dollars and Sense, 2017) and (Thaler, 2016; Kahneman, Knetsch, & Thaler, Experimental Tests of the Endowment Effect and the Coase Theorem, 1990). People could start to value a good based on the opportunity cost rather than the nominal value. By doing this, people would evaluate the item as an exchange with the other item. For example, a person with Rp 50,000 (USD 3.40) could buy 5 plates of value meal (@ Rp 10,000 [USD 0.68] per plate) or 1 plate of "KFC Super Besar 2" meal set or another alternative. These options help people to understand every choice weight compare with another one so they could select the best option based on the highest utility value. Obviously, in economic this utility value is very subjective matter for each person so discussing about it would be another scope of research. In extreme case, back to salary man with Rp 5,000,000 (USD 340) wage per month, he would be very careless if he buys Rp 24,000,000 (USD 1,630) newest smartphone because the actual cost for installment is 40% of his income (for 12 times installment). This money could be used to buy other essential need for his living, such as meal or other living cost. In other word, it is very expensive to buy a lifestyle and makes somebody starving with the latest phone in his pocket. Finally, the final remark from behavioral economist is self-control. Practice self-control helps people to avoid unnecessary consumption in their life. Some research also notes that there is a possibility to escape from habit loop (Wendel, 2014). Behavioral research summarized that usually people trap with repetitive action (or habit) because of habit loop mechanism. At first, there is a cue, then it proceeds with action and finally people feel rewarded. So, people need

to practice self-control when the "cue" is occurred. In summary, this research suggests when some cues happen ("Illusion Number", "Small Number", or "Endowment Effect") then people could start to evaluate the value based on opportunity cost. This action helps people to exercise self-control and evade them from unnecessary action.

Thirdly, on managerial perspective, the study of behavioral economic, especially endowment effect become very relevant topic to be observed, especially in developing price strategy. People still can be influenced by "framing" that purposively embeded by marketers regardless the condition that is faced by consumers. As it is said above, it can be for good or it can be for evil (induce more consumptive behavior). Although people can agree that value of the mask is high during the pandemic, the fairness of the economic action (price increase) depends on initial frame that exposed to consumers.

Finally, this research is the first attempt to explisitly bring behavioral economic issue to Indonesia. Previously, financial study focuses on investor anomaly in capital market (Kiky, 2020). It seems that the scope of behavior economic is far greater than capital market anomaly. Perhaps this research could bring more inspiration for other behavioral economic researchers to explore further another interesting issue that is not yet to be found. Author realizes that this research is far from complete or perfect, so it would be nice if this article is criticized with valuable input to improve the future research. It is clear that endowment effect still exists and people (or students) should be cautious with their mind error. This early finding could benefit or does some harm. On the benefit side, it helps people to detect the possible 'cue" when the error is occurred and people could exercise preventive action. On the opposite side, some marketers could utilize this "cue" and lead to more irrational buying so it could improve their selling. Nevertheless, both positive and negative side of behavioral economics, it improves our understanding of our decision-making process.

5. CONCLUSION, LIMITATION AND SUGGESTION
5.1 Conclusion
In summary, there are several points that highlighted in this research:
1. For respondents (university students), price increase for medical mask during COVID-19 outbreak is still acceptable at maximum Rp 4,000 (USD 0.27). Unfortunately, although their willingness to buy and pay meet at this price point, this price increase still considers unfair by certain group when different framing of question is applied. From this point, it confirms the existence of endowment effect and validated by independent t-test.
2. The cause of this inconsistency perhaps is stimulated by our mind system (system 1 – fast thinking system) (Kahneman, Thinking, Fast and Slow, 2013), which sometimes could be found when people encounter with "small number" or "illusion number" and it directs to an error or unnecessary purchase.
3. The implication from this finding aids people to detect a cue when an error about to be happened. According to habit loop, repetitive action could be emerged as the cue trigger an action and then people feel rewarded for their action. To overcome this, people just need to be aware with every cue and protect themselves with "opportunity cost" assessment and self-control.
4. In the end, behavioral economic is like two edge knives, it could benefit either side. On one side, people could use this method to avoid and protect themselves from irrational decision or behavior but on the other side, marketers could use this to boast

up their selling by employ many cues to cause further irrational buying decision. Therefore, the good or bad consequence from this subject is still debatable and need further exploration in future research.

5.2 Limitation

This research has very limited sample size and limited resource. Drawing conclusion based on this small number of respondents still can be debated and the next research could try to expand it further not only on single cluster. This result serves as intial diagnosis of people misjudgment, especially in valuing economic action.

5.2 Suggestion

The application of behavioral economic is not only limited to capital market anomaly, but also on people decision making. By understading this phenomenon, management can draft strategy based on "loop hole" or "possible bug" in people decision. Further improvisation of this reseach would be very interesting if can be conducted with best practice in real life industry.

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