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THE INFLUENCE OF PERCEIVED SCARCITY AND ATTITUDE TOWARD NEGATIVE E-WOM ON PANIC BUYING COVID-19 PREVENTION PRODUCTS IN JABODETABEK WITH CONSUMER ANXIETY AS MEDIATION

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Abstract:

This study aims to determine the effect of perceived scarcity, attitude toward negative e-WOM, and consumer anxiety on panic buying and the effect of perceived scarcity on panic buying with consumer anxiety as mediation in COVID-19 prevention products in Jabodetabek. The research data collection used a research instrument in the form of a questionnaire. The sampling technique used purposive sampling. The research sample was 202 respondents with the criteria that they live in Jabodetabek, are at least 17 years old, and have purchased COVID-19 prevention products. The results showed that perceived scarcity, attitudes towards negative e-WOM, and consumer anxiety have a positive and significant effect on panic buying. Perceived scarcity has a significant effect on consumer anxiety. In the mediation variable, consumer anxiety mediates the effect of perceived scarcity on panic buying. Further research can be developed with coverage of different types of panic buying products and coverage of different variables such as price variables, social contagion, government intervention, media exposure, and other aspects of psychological variables such as uncertainty variables, and perceived threats.

Keywords:

Panic Buying, Perceived Scarcity, Attitude toward Negative e-WOM, Consumer Anxiety, COVID-19

Background

The global crisis of the COVID-19 pandemic has caused changes in various aspects of life including in the health and medical fields, economy, education, and other fields. According to CNN Indonesia (2021), the pandemic began at the end of 2019, when the first case caused by the SARS-Cov-2 virus was found in a market in the city of Wuhan, China. Furthermore, the Chinese government announced a pneumonia outbreak and reported it to the World Health Organisation (WHO), then in 2020 WHO announced that the Coronavirus was the cause of the pneumonia cluster in Wuhan. Furthermore, COVID-19 cases spread to several other countries including Indonesia.

During the COVID-19 pandemic, a social phenomenon emerged, namely panic buying. The panic buying phenomenon also occurs in Indonesia. This resulted in an increase in sales in retail by 10% to 15% from usual during panic buying (Liputan 6, 2020). The existence of panic buying has been utilised by irresponsible parties to commit fraud with the practice of hoarding goods, online fraud, and sudden and uncontrolled price increases (Azanella, 2022).

Panic buying attacks several commodities, especially COVID-19 preventive products. These products include masks, vitamin C and vitamin D supplements, air purifiers, disinfectants, and hand sanitisers (Ramadani, 2022). Panic buying of COVID-19 preventive products resulted in shortages of masks, hand sanitisers, disinfectants, and vitamin supplements in supermarkets, pharmacies, and shops (Azanella, 2022). Based on research conducted by Sirclo and Katadata Insight Centre, there has been a 40.1% increase in sales of health products during the COVID-19 pandemic in 2020 (Jayani, 2021). Research conducted by the Indonesian Digital Marketing Association Team also informed that three marketplaces, namely Shopee, Tokopedia, and Bukalapak, also showed a high level of sales of health products with a total of 23.8 million products or 35.72% of the total 621 million products compared to 39 other product categories. Where the most purchased health products are masks, hand sanitisers, vitamins, and others (Karnadi, 2021). Meanwhile, Sirclo also reported that there was a significant increase in online shopping for the health and hygiene category, with hand sanitisers experiencing the highest purchase increase of 531% and vitamins increasing by 210% (Jawa Pos, 2020).

According to Liputan 6 (2020), panic buying in Indonesia occurred after the government announced the start of positive COVID-19 cases and imposed restrictions on activities outside the home. Several cities, including Jakarta, Surabaya, Bandung, Semarang, and Bali, implemented the policy of widespread social restrictions (PSBB). This policy caused public concern about access to health products and led to scarcity of some of these products. This perceived scarcity is thought to have led to panic buying. Data from the Indonesian Consumers Foundation (YLKI) shows that difficult access to health products was the main complaint during the COVID-19 pandemic (Syarif, 2020). People are worried about contracting the virus, which leads to panic buying in anticipation of the situation. The perceived scarcity of covid-19 preventive products also creates anxiety in consumers. In addition, the COVID-19 pandemic has also increased digital social interactions (Bestari, 2022; Prasetyani, 2021). In addition, during the COVID-19 pandemic, many people made negative comments. Negative eWOM spread through social media and was linked to the negative impact of the COVID-19 pandemic. Public attitude towards various issues regarding COVID-19 (attitude towards negative e-WOM) contributes to the occurrence of panic buying. The panic buying phenomenon occurs in many countries and has important implications for governments, businesses, and organisations on a global scale (Islam et al., 2021).

THEORETICAL FRAMEWORK
Panic Buying

Panic buying is defined as an act of buying products quickly and without prior consideration due to the fear that a person feels that certain circumstances are getting worse (Aydınlıoğlu & Gencer, 2020). (Yuen et al (2020) explain panic buying behaviour which is a change in behaviour that occurs when consumers buy an unusually large quantity of goods as a form of anticipation of food shortages when during a natural disaster occurs or afterwards.

Meanwhile, according to Chua et al. (2021) panic buying is a consumer behaviour that is considered effective in preventing oneself from running out of stock of essential products by ensuring the availability of personal supplies. It can be concluded that panic buying behaviour is an act of buying without consideration in large quantities due to the fear of a shortage of product supplies in the future.

Perceived Scarcity

Scarcity is a perceived threat to consumers' ability to fulfil their needs or wants due to lack of access to services, goods, or resources (Hamilton et al., 2019). This perceived threat has an impact on consumers. Kartika (2019) explains that scacrity can limit consumers' freedom to get the desired product, thus creating a greater desire to own the product. Meanwhile, perceived scarcity is related to the belief that at a certain time and in a certain place, there is a scarcity of a certain product (Gupta & Coskun, 2021). It can be concluded that perceived scarcity is the belief that consumers feel will be difficult to fulfil their needs in the form of goods or services at a certain time.

Attitude Toward Negative eWOM

Attitude is an individual's tendency to respond positively or negatively to an object, person, institution, or even something that discriminates aspects of an individual (Ajzen, 1989). Meanwhile, attitude towards e-WOM is defined as the overall influence in the form of positive or negative in e-WOM communication and is not specific to circumstances or satisfaction (Fu et al., 2015). According to (Ardyan et al., 2021), attitude towards negative e-WOM is a form of negative response to information obtained from other people through the Internet. It can be concluded that attitude towards negative eWOM is an individual's response to negative eWOM communication that affects the individual themselves.

Consumer Anxiety

Anxiety is an emotion that appears characterised by changes in feelings due to a response to something negative(Kumbara et al., 2018). Anxiety that arises is a form of anticipation of bad possibilities that will occur in the future. Meanwhile, according to (Putri et al., 2021) anxiety is an emotional condition that is present in the form of feelings of tension, fear, and discomfort due to something that is not certain to happen and is in the future. Consumer anxiety or consumer anxiety refers to the perceived fear of consequences that occur but is not known to be followed by purchases made and there is a lack of control over consumption outcomes (Dewi et al., 2020).

METHOD

This study uses a quantitative method with the object of research of people who live in Jabodetabek who have purchased health products during the pandemic for approximately the last three months during the COVID-19 pandemic with a minimum age of 17 years. The sampling technique used a purposive sample by distributing research questionnaires online. The research data analysis used IBM SPSS 25 which functions to process statistical analysis, validity tests, and reliability tests. Furthermore, AMOS 24 was used to test hypotheses and research models using Structural Equation Modeling (SEM) analysis techniques.

RESULT
Respondent Profile

Based on the results of the research questionnaire that has been distributed, 202 research respondents were obtained. The following data is the result of the respondent's profile in the form of gender, age, domicile, latest education, employment status, and average monthly income. Description of the results of data processing of respondent profiles can be described in the following table.

Table 1. Respondent Profile Descriptive Statistics

Criteria		Frequency	Percentage
Gender	Male	75	37.13%
	Female	127	62.87%
	Total	**202**	**100.00%**
Age	17-22 years	85	42.08%
	23-28 years	44	21.78%
	29-33 years	26	12.87%
	34-38 years	20	9.90%
	39-43 years	17	8.42%
	≥ 44 years	10	4.95%
	Total	**202**	**100.00%**
Domicile	Jakarta	98	48.51%
	Bogor	15	7.43%
	Depok	31	15.35%
	Tangerang	36	17.82%
	Bekasi	22	10.89%
	Total	**202**	**100.00%**
Education level	< Senior High School	23	11.39%
	Senior High School	86	42.57%
	Diploma	21	10.40%
	Bachelor	64	31.68%
	Master or more	8	3.96%
	Total	**202**	**100.00%**
Employment status	Not yet/not working	67	33.17%
	Working	94	46.53%
	Own Business	36	17.82%
	Retired	5	2.48%
	Total	**202**	**100.00%**
Monthly income	Rp 0 – 500.000	46	22.77%
	Rp 500.000 – 999.999	20	9.90%
	Rp 1.000.000 – 1.999.999	22	10.89%
	Rp 2.000.000 – 2.999.999	35	17.33%
	Rp 3.000.000 – 3.999.999	24	11.88%
	Rp 4.000.000 – 4.999.999	31	15.35%
	≥ Rp 5.000.000	24	11.88%
	Total	**202**	**100.00%**
Frequency of purchase of covid-19 preventive products in the last 3 months	1-3 kali	29	14.36%
	4-6 kali	73	36.14%
	7-9 kali	51	25.25%
	≥ 10 kali	49	24.26%

	Total	**202**	**100.00%**

Source: Data processed by researchers (2022)

Almost 50% of research respondents came from Jakarta because it has the most positive cases of COVID-19 and the occurrence of a wave of panic buying. 50% of respondents purchased covid-19 preventive products more than six times in the last three months.

Validity and Reliability Test

The validity test was carried out on the indicators of each variable using the Exploratory Factor Analysis (EFA) method and after that, a reliability test was conducted. Validity and reliability test using the SPSS 25 application.

Table 2. Validity and Reliability Test Results

Variables	Validity Test			Reliability test	
	Indicator	Factor Loading	Description	Cronbach's Alpha	Description
Panic Buying	PB1	0.636	Valid	0.802	Reliable
	PB2	0.888	Valid		
	PB3	0.883	Valid		
	PB4	0.745	Valid		
	PB5	0.602	Valid		
Perceived Scarcity	PS1	0.801	Valid	0.808	Reliable
	PS2	0.789	Valid		
	PS3	0.789	Valid		
	PS4	0.652	Valid		
	PS5	0.726	Valid		
Attitude toward Negative eWOM	ATNE1	0.667	Valid	0.829	Reliable
	ATNE2	0.788	Valid		
	ATNE3	0.793	Valid		
	ATNE4	0.838	Valid		
	ATNE5	0.781	Valid		
Consumer Anxiety	CA1	0.847	Valid	0.893	Reliable
	CA2	0.846	Valid		
	CA3	0.874	Valid		
	CA4	0.894	Valid		
	CA5	0.392	Invalid		

Source: Data processed by researchers (2022)

Table 4.2 shows the results of the validity test and reliability test of each variable. Referring to table the validity test results show that all indicators of each variable are valid because they have a factor loading value > 0.50 except the CA5 indicator of the consumer anxiety variable. The CA5 variable has a value of 0.392 which should be 0.50. Then the variable will be deleted and not used in the reliability test and hypothesis testing. Furthermore, the reliability test is said to be reliable if it has a Cronbach's alpha value> 0.70. The results of the reliability test show that the five variables have a value above 0.70 so that they are declared reliable.
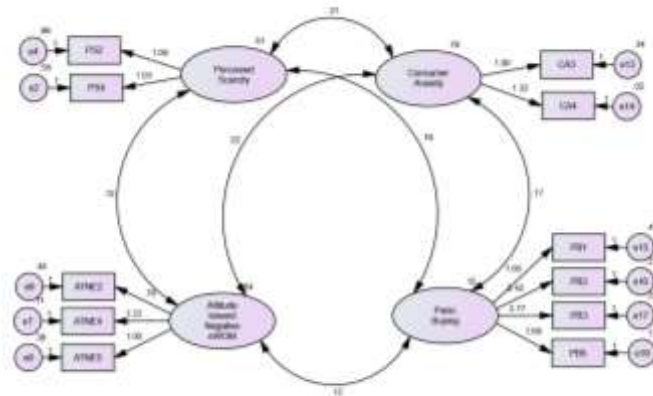
Model fit test

The model fit test is used to measure the suitability of the research model using structural equation (SEM) modelling with several fit size criteria or referred to as goodness of

fit.

Figure 1. Model Fit Test

Source: Data processed by researchers (2022)

Tabel 3. Model Fit Test Results

| Goodness of Fit	Cut Off Value	Nilai	Description
Chi Square	Expected small value	47,005	*Fit*
Probability	< 0.05	0,137	*Fit*
CMIN/DF	< 2.00	1,237	*Fit*
Goodness of Fit Index (GFI)	≥ 0.90	0,959	*Fit*
Adjusted Goodness of Fit Index (AGFI)	≥ 0.90	0,929	*Fit*
Root Mean Square Error Aproximation (RMSEA)	≤ 0.08	0,034	*Fit*
Normed Fit Index (NFI)	≥ 0.90	0,953	*Fit*
Tucker Lewis Index (TLI)	≥ 0.90	0,986	*Fit*
Comparative Fit Index (CFI)	≥ 0.90	0,991	*Fit*
Parsimonious normal fit index (PNFI)	> 0.60 - 0,90	0,688	*Fit*

Source: Data processed by researchers (2022)

Referring to table 4.15, the results of the fit model test show that there are 10 goodness of fit criteria that are a reference for obtaining a fit construct and the value obtained from the fit model test results. Then from the test results, the chi-square value is 47.005, the probability value is 0.137. Also, other goodnes of fit criteria fulfil the cut off value.

Hypothesis testing

The results of hypothesis testing were carried out by looking at the critical ratio (CR) value ≥1.96, so it was declared accepted. Then the probability value (P value) ≤0.05, the hypothesis is said to have a significant effect. Furthermore, hypothesis testing with mediating variables is carried out Sobel Test. Sobel test results ≥1.96 with a significant level ≤0.05, then the variable is said to mediate the relationship.

Figure 1. Model Fit Test
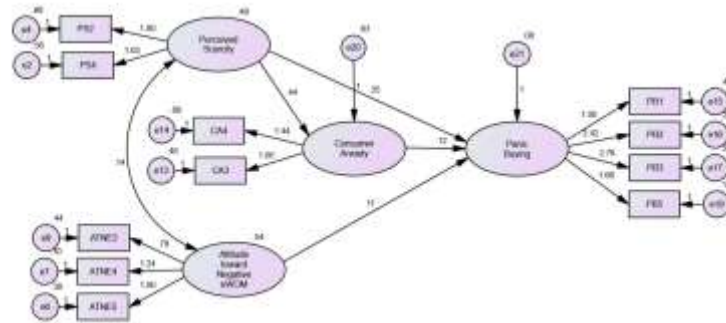
Source: Data processed by researchers (2022)

Tabel 4. Hypothesis Testing Results

	Hipotesis	C.R.	P	Result
H1	Perceied scarcity → panic buying	3.719	***	**Accepted**
H2	Attitude toward negative eWOM → panic buying	2.758	0.006	**Accepted**
H3	Consumer anxiety → panic buying	3.303	***	**Accepted**
H4	Perceied scarcity → consumer anxiety	3.478	***	**Accepted**
H5	Consumer anxiety mediates perceived scarcity and panic buying	2.396	0.008	**Accepted**

Source: Data processed by researchers (2022)

Referring to table 4. The results of hypothesis testing show that H1 to H5 have a CR value ≥1.96 and a probability value ≤0.05 value, so with this the five hypotheses are declared accepted and have a significant effect.

DISCUSSION

The test results show that perceived scarcity affects panic buying. Results of hypothesis testing between panic buying and perceived scarcity resulted in a CR value of 3.719 which is ≥1.96 and the *** value means <0.001 which indicates a positive and significant relationship. The more perceived scarcity will increase the urgency in panic buying. The significant and positive test results are supported by previous research conducted by Chua et al. (2021)which states that this is in accordance with scarcity theory. Where consumers consider the high scarcity of a good or service to have a higher probability of panic buying. Thus, rational consumers will tend to make panic purchases because higher utility is felt by them when a scarcity situation occurs.

Based on hypothesis H2 testing between attitude towards negative eWOM and panic buying have a CR value of 2.758 which is ≥1.96 and a p value of 0.006 which is ≤0.05. The more often consumers are exposed to negative eWOM, the more panic buying behavior will increase. The results of this study support previous research conducted by Ardyan et al. (2021)which explains that attitude toward negative eWOM has a strong effect on increasing panic buying behavior. Attitude toward negative eWOM occurs when consumers see various comments on various social media that explain the scarcity and panic during the COVID-19 pandemic. Consumers judge eWOM both positively and negatively. This attitude will increase the urgency for panic buying activities.

Referring to the results of hypothesis testing H3, relationship between consumer anxiety and panic buying have a CR value of 3.303 which is ≥1.96 with *** means <0.001.

Based on these results, it indicates that there is a positive and significant relationship. The results of this study support previous studies conducted by Omar et al. (2021) and Putri et al. (2021)which explains that consumer anxiety has a positive and significant effect on panic buying.

Then the results of hypothesis testing between perceived scarcity and consumer anxiety have a CR value of 3.478 and a p value of *** means <0.001 which indicates a positive and significant relationship. The results of hypothesis testing indicate that the consumer anxiety variable is an important variable in increasing consumer anxiety. The more consumers feel the scarcity of a commodity, the higher the anxiety felt. This is in accordance with the reactance theory, individuals who feel a threat to their freedom can cause the re-establishment of individual freedom with psychological reactions (Miron & Brehm, 2006).The results of this study support previous research conducted by Omar et al. (2021), explained in the results of their research that perceived scarcity is positively related to consumer anxiety.

Hypothesis testing of the relationship between perceived scarcity and panic buying through consumer anxiety as mediation using the sobel test results in a sobel test value of 2.396 which means it meets the minimum criteria for the sobel test value ≥1.96. The result of the significance level of hypothesis testing is 0.008. So based on these results, the consumer anxiety variable mediates the relationship between perceived scarcity and panic buying. The study results are also supported by previous research conducted by Omar et al. (2021). which suggests that when scarcity occurs it will positively increase the anxiety felt by consumers, and trigger panic buying.

RESEARCH IMPLICATION

Panic buying is a phenomenon that has implications for various parties from consumers, producers to the government. The existence of panic buying has been utilised by irresponsible parties to commit fraud with the practice of hoarding goods, online fraud, and sudden and uncontrolled price increases. Awareness and shared responsibility of various parties. Consumers need to raise awareness about the impact that perceived scarcity and consumption of negative eWOM can have on their shopping behaviour. By understanding these psychological influences, consumers are expected to make more rational purchasing decisions. Since attitudes towards negative EWOM can influence consumers, it is important for them to seek out reliable sources of information before making purchasing decisions based on negative information in circulation.

Manufacturers can act as a party that manages product availability by utilising information about product scarcity to optimise product production and distribution to be timelier and more efficient. This can reduce the risk of panic buying caused by product unavailability. Consumer anxiety can affect their perceptions of brands and products. Manufacturers can endeavour to improve product and service quality to reduce consumer concerns. Then, the government can be the party that supervises providing clear and firm regulations. The government can take a role in educating consumers about wise and sustainable shopping practices. This can help reduce panic buying and excessive consumer anxiety. The government can oversee business practices that may capitalise on perceived scarcity to unfairly increase demand and product prices. This can protect consumers from fraud and harmful business practices. As well as controlling emergency or crisis situations that

cause panic buying, the government can take measures to control excessive consumer behaviour, such as imposing limits on purchase amounts to prevent hoarding.

CONCLUSION

This study found that perceived scarcity, attitude towards negative eWOM, and consumer anxiety have a positive and significant effect on panic buying of COVID-19 preventive products in Jabodetabek. Consumer anxiety mediates the relationship between perceived scarcity and panic buying. The perceived scarcity that consumers feel creates anxiety during the COVID-19 pandemic, causing consumers to panic buy COVID-19 preventive products to be stored as stock.

This research also has limited references and limited research samples which are still dominated in Jakarta. Recommendations for future research to conduct research with different panic buying coverage, not only preventive products. As well as using different variable coverage such as price variables, social contagion, government intervention, media exposure and other aspects of psychological variables such as uncertainty variables, and perceived threats.

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