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Impact of The COVID-19 Pandemic Crisis on Stocking Behavior and Impulsive Purchase of Consumers in Tasikmalaya

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ABSTRACT

At the beginning of 2020, there was a pandemic that shocked the world community, namely COVID-19, which had an impact on all aspects of people's lives, including consumer behavior patterns. This study aims to analyze the impact of consumer fear due to the COVID-19 pandemic on consumer behavior, especially on stocking behavior and consumer impulse buying behavior in the city of Tasikmalaya. The objects of this study were grouped using a non-probability sampling method with a convenience sampling technique. The object of the research itself is the people who live in the city of Tasikmalaya, West Java. The research sample obtained in this study was 261 respondents. The techniques and data processing applied in this study used quantitative methods with the structural equation model (SEM) using AMOS 24 software. consumer hoarding and also has the same effect on consumer impulse buying behavior.

Keywords: consumer behavior, stocking, impulsive buying, COVID-19

INTRODUCTION

In 2019 there was an epidemic that had made almost all people in the world anxious, but unfortunately in early 2020 the epidemic began to spread widely quickly so that its status became a pandemic, thus causing a global health emergency and this has changed the world's economy. Overall, the pandemic is Coronavirus disease 2019 (COVID-19) (Hall et al. 2020). When the COVID-19 pandemic occurred in the early years, many things were affected from various sectors, ranging from people's daily activities, activities within a country such as the entertainment industry, tourism, to global economic activities were drastically and significantly affected. This is due to the global panic over the rapid spread of the COVID-19 virus, therefore many efforts have been made by the government and policy makers to break the chain of spread, such as doing social distancing, and closing many shops to avoid crowds. In one study it was stated that COVID-19 brought many substantial psychological, social and professional changes, such as job loss, low savings, fear and stress during overseas

visits, an uncertain future and physical and mental health problems (Bradbury-Jones and Isham, 2020). In addition, a comprehensive study showed that the coronavirus disease 2019 (COVID-19) is associated with worldwide psychological distress such as anxiety and panic (Xiong *et al.*, 2020), leading to impulse buying (Deng *et al.*, 2020). That way, COVID-19 has a serious impact on various things, including the behavior of people in consuming a need. This pandemic affects not only economic volatility but also consumer purchasing decisions worldwide (Addo *et al.*, 2020).

Given this, of the many impacts caused by COVID-19, especially those related to consumer behavior habits in the market, the variables that will be discussed in this study are related to impulsive buying and stocking consumers in consuming a need during this COVID-19 pandemic crisis. Rook (1987) explains that impulse buying is as an unplanned purchase characterized by complicated, intolerable, sudden hedonic behavior with inadequate consideration, no strings attached and contemplation of alternatives. A study conducted by Parsad (2020) shows results which state that when consumers have an anticipatory, intense, and persistent desire to buy an item as soon as possible, then the activity is a consumer's impulsive buying activity. This could have happened because given the global panic that has affected the psychology and mindset of individuals, so many people make purchases suddenly in order to meet their needs during an uncertain crisis.

The next variable is consumer behavior related to stocking during the COVID-19 pandemic. If you look at the current problems due to the pandemic, it is not surprising that people consume different consumption patterns, one of which is by hoarding or stocking an item, because considering the government enforces a health protocol that requires closing existing shops, therefore it is not surprising that people buy and stockpile their needs in order to survive in these times of crisis. In addition, there is a study conducted related to consumer stocking behavior variables, namely research conducted by Naeem (2020) showing that the COVID-19 pandemic crisis has a felt impact on the community so that it can increase stocking behavior on the consumption of a necessity.

LITERATURE REVIEW AND HYPOTHESIS

Consumers Fear Due to The COVID-19 Crisis

According to Ohman and Mineka (2001) fear is a primitive emotion that is strong and natural, and it can influence decision making. In addition, fear can remind us of the threat of danger which can be either psychological or physical (Ohman and Mineka, 2001). Meanwhile, according to another explanation, it is stated that fear itself is a complex thing. There are several factors that can trigger the emergence of anxiety and a sense of threat, these factors usually come from the external environment (Tuan, 1979).

If you look at and examine the definition of fear, consumer fear due to the COVID-19 crisis in the context of this study means that the fear raised by consumers is a natural response caused by existing threats, where people begin to focus more on survival. and necessities of life, with these fears people are worried about living clean and afraid of being infected with disease, as well as the demand for hygiene products soaring significantly (Gupta et al., 2021b). In addition, fear can affect the way individuals perceive the world around them, leading to physical responses such as avoidance behavior (Frijda, 1986). It can be clearly seen that COVID-19 has contributed to increased fear and uncertainty among consumers. The intensity of the outbreak of these disturbing events may cause consumers to adopt protective

behaviors to avoid fear or risk. During such crises, arousal or fear appeal is primarily used to motivate appropriate behavior (Hassan and Soliman, 2021).

Consumer Stocking Behavior

Consumer behavior is a learning related to how individuals and groups carry out activities ranging from buying to evaluating a product or goods in fulfilling their desires (Kotler and Keller, 2006). If you look at the context of this study, according to Yuen *et al.* (2020) consumer stocking behavior is a form of direct response to consumer behavior, namely by doing panic buying and hoarding necessities on a large or small scale triggered by the COVID-19 pandemic crisis. The outbreak of COVID-19 has brought about changes to social, professional and psychological routines, such as financial difficulties, self-isolation and stress, job loss and physical and psychological health problems (Bradbury-Jones and Isham, 2020). As a result, people feel more uncertainty, anxiety, stress and fear, which causes some people to stock up on themselves and their families. So in short, consumer stocking behavior is hoarding behavior carried out by an individual and caused by a certain event.

Consumer Impulse Purchase Behavior

Impulse buying occurs when consumers lose control because of emotions that have been influenced by several factors and then make purchases that are not previously planned. When viewed from the definition, Amos *et al.* (2014) provide the opinion that impulse buying is an activity carried out by consumers in buying an item but not planned at all, and driven by motivation that appears suddenly. This is an instant and quick response from a consumer and there are factors that can "tempt" consumers because of lack of consideration in taking or buying something and lack of consideration for getting substitutes (Rook, 1987). The definition emphasizes that the buyer does not intend to purchase the goods before entering the shopping area with the planned intention. Another expert opinion says that in making decisions, there are cognitive and affective problems in a person's personality that can affect impulse buying activities (Coley and Brigitte, 2003).

Hypothesis Formulation

The fear and anxiety caused by the implementation of the related health protocols to break the chain of the spread of COVID-19, has a big impact because it causes uncertainty in the situation and threats, both nationally and globally, so that it leads to changes in consumer behavior towards increased purchases. a need even though no advertising is used or price changes (Naeem, 2020). The results of research conducted by Hobbs (2020) show that anxiety due to the pandemic is seen in consumer hoarding behavior. Because consumers respond to crises in the same way because of their innate behavior. Referring to the research conducted by Gupta *et al.* (2021), showing that people's fear of the COVID-19 pandemic has an influence on consumer stocking behavior, especially in India. If it is seen from the research where consumer fear of the COVID-19 pandemic has an influence and impact on consumer stocking behavior, therefore in the context of this research, during the COVID-19 pandemic crisis it can affect consumer stocking behavior. This is due to the emergence of a fear of health matters and to maintain a clean and hygienic life and needs. Therefore, the authors make the following hypothesis:

H_1: Consumer fear due to the COVID-19 crisis has a significant and positive influence on consumer stocking behavior.

Zafar *et al.* (2019) found that impulse buying involves an investment made because of a certain motivation where the decision to buy something does not depend on a deep thought process. In other words, impulse buying is a decision-making activity to buy something without considering it, or suddenly due to several motivating factors. In addition, Addo et al. (2020) argues that an internal stimulus related to personal motivation or emotion, has the same important portion as an external stimulus, where it leads to impulsive buying behavior. If we look at the United States, it is found that this time of the COVID-19 crisis has had a major impact on the individuals who were there, more specifically, the Americans involved in making impulse purchases during this crisis situation. Garrett (2020). In addition, referring to the research conducted by Gupta *et al.* (2021) using a similar variable, shows that consumer anxiety due to the COVID-19 pandemic has an influence on consumer impulse buying behavior in India.

This is in line with a finding that in times of uncertainty like this, customer behavior theory shows how people try to achieve a sense of control by acquiring products and by engaging in panic buying, one of which is by making lots of unplanned purchases, namely impulse buying (K. Yuen *et al.*, 2020). Looking at the results of previous studies where it was stated that the uncertainty situation created by the COVID-19 crisis had an influence on impulse buying. So in the context of this research, given the panic caused by the pandemic crisis situation, consumers tend to make unplanned purchases in order to protect their loved ones. Therefore, the authors make the following hypothesis:

H_2: Consumer fear due to the COVID-19 crisis has a significant and positive influence on consumer impulse buying behavior.

METHODOLOGY

Researchers used a non-probability sampling method with convenience sampling technique with primary data collection and the number of respondents was 261 people. Respondents in this study were respondents who bought daily necessities during the pandemic, especially people who were in Tasikmalaya. Data was obtained by distributing Google Form questionnaires online. The analysis used in this study is structural equation modeling (SEM) and was carried out using AMOS software. To prove the hypothesis, a SEM test was proposed, namely statistical analysis. This study uses the AMOS version 24 application program.

RESULT AND DISCUSSION

Normality Test

Table 1. Normality Test

Variable	Min	Max	Skew	C.R.	Kurtosis	C.R.
PSK3	1,000	7,000	-,118	-,662	-,360	-1,013
KK4	1,000	7,000	-,158	-,889	-,541	-1,523
PIK3	1,000	7,000	-,187	-1,050	-,328	-,922
PSK2	1,000	7,000	,397	2,235	-,555	-1,561
KK3	1,000	7,000	-,740	-4,163	-,033	-,094

Variable	Min	Max	Skew	C.R.	Kurtosis	C.R.
KK2	1,000	7,000	,256	1,441	-,726	-2,041
PSK1	1,000	7,000	,509	2,866	-,604	-1,700
PIK2	1,000	7,000	-,128	-,721	-,305	-,859
PIK1	1,000	7,000	-,113	-,637	-,437	-1,231
KK1	1,000	7,000	-,420	-2,366	-,477	-1,342
Multivariate					4,797	2,134

Source: Data Processing (2022)

In carrying out normality assumptions, data assumptions must be met so that existing data can be processed further. The way of testing carried out at this stage of normality is by observing the value of the critical ratio (CR) of the data used, if the multivariate data value is in the range of ± 2,58 then, the research data can be said to be normal. The table above shows that the multivariate CR value is 2,134 which means it is between + 2,58 and – 2,58. So that the data in this study can be said to be normally distributed.

Outliers

Table 2. Outliers Test

Observation number	Mahalanobis d-squared	p1	p2
2	21,383	,019	,972
34	21,380	,019	,870
86	20,374	,026	,872
7	20,229	,027	,761
149	19,466	,035	,792
76	19,174	,038	,734
103	18,704	,044	,738
105	18,611	,045	,638
36	18,504	,047	,539
136	18,143	,053	,544
132	18,143	,053	,416
175	18,072	,054	,325
85	18,065	,054	,226
54	17,873	,057	,200

Source: Data Processing (2022)

A data observation that has characteristics that tend to be unique, by showing extreme values is called outliers. In addition, outliers can also be evaluated, namely by analyzing multivariate outliers, it can be seen from the Mahalanobis Distance value. The Mahalanobis Distance test itself can be calculated using the chi-square value on the degree of freedom of 10 indicators at the level of $p < 0.01$ with reference to the chi-square table, it is found that the chi-square value is 23.21. In the table above, it can be seen that the highest value of mahalanobis d Square is 21.383 so it does not exceed the c-square value of 23.21. From these results, it can be concluded that there are no outliers in the data.

Validity and Reliability Test

The implementation of confirmatory testing is needed to test the developed concept using measurable indicators. The first thing to look at is the loading factor value of the existing indicators. This value can be used to measure construct validity, where a questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that is measured by the questionnaire. It is stated that the minimum number of factor loading ideally is more than equal to 0,7. And if the value shows below 0,5 it will be eliminated from the analysis (Hair *et al.*, 2010).

Furthermore, in the confirmatory test, a reliability test was also carried out. The reliability coefficient ranges from 0-1 so the higher the coefficient (closer to number 1), the more reliable the measuring instrument is. Construct reliability is good if the construct reliability value is > 0,7 and the variance extracted value is > 0,5 (Sofyan and Kurniawan, 2009).

Table 3. Loading Factor

			Loading Factor Result
KK1	<---	KK	0,528
KK2	<---	KK	0,557
KK3	<---	KK	0,640
KK4	<---	KK	0,677
PSK1	<---	PSK	0,952
PSK2	<---	PSK	0,846
PSK3	<---	PSK	-0,029
PIK1	<---	PIK	0,882
PIK2	<---	PIK	0,945
PIK3	<---	PIK	0,844

Source: Data Processing (2022)

The table above shows that there is 1 invalid indicator, namely PSK3 with a loading factor value of -0,029 so it must be excluded from the analysis of this study. After the invalid indicators are dropped, the loading factor value is as shown in the next table.

Table 4. Validity and Reliability Test

Variable	Indicator	Loading Factor	Construct Reliability	Variance Extracted
Consumers' fears due to the COVID-19 crisis	KK1	0,566	0,8	0,5
	KK2	0,631		
	KK3	0,781		
	KK4	0,704		
Consumers Impulsive Buying Behavior	PIK1	0,946	0,9	0,8
	PIK2	0,883		
	PIK3	0,913		
Consumer Stocking Behavior	PSK1	0,972	0,9	0,8
	PSK2	0,846		

Source: Data Processing (2022)

From the table above, it is known that all indicators in this study already have a loading factor value of more than 0.5, so it can be concluded that all indicators in this study are valid. From Table 4.12. it can also be seen that the construct reliability of all variables has shown the number 0.7. The value of variance extracted in this study, already has a value of 0.5. So it can be concluded that the questionnaire used for this study is declared reliable.

Goodness of Fit

According to Hair *et al.* (1998) in testing GOFI there are 3 criteria, including absolute fit indices, incremental fit indices and parsimony fit indices. Of the three types of GOFI, if analyzed as a whole there are 25 criteria, but according to Hair *et al.* (2010) in the SEM-AMOS analysis it does not require that all criteria be met, it is stated that 4 to 5 criteria are sufficient but with a note that there are criteria that represent the three types GOFI criteria. In this study, several criteria were taken from each type of GOFI, namely Chi square, Probability, CMINDF, RMSEA and GFI representing absolute fit indices, CFI and TLI representing incremental fit indices then PNFI representing parsimony fit indices.

Table 5. Goodness of Fit Test Results Confirmatory Analysis

Fit Index	Goodness of Fit	Criteria	Cut-off Value	Description
Absolute Fit	Chi Square	Low	124,080	Doesn't Fit
	Probability	≤ 0,05	0,000	Doesn't Fit
	CMINDF	≤ 2,00	4,963	Doesn't Fit
	GFI	≥ 0.90	0,901	Fit
Incremental Fit	CFI	≥ 0.90	0,922	Fit
	TLI	≥ 0.90	0,888	Doesn't Fit
Parsimony Fit	PNFI	≥ 0.60	0,628	Fit

Source: Data Processing (2022)

From the results of the goodness of fit test in the table above, it can be seen that there are still 3 criteria that are not fit. Therefore, to increase the GOF value, it is necessary to modify the model that refers to the modification index table by providing a covariance relationship or eliminating indicators that have a high MI (Modification Index) value.

Model Modification and Complete Model GOF Test

This section is part of the research model that has made some adjustments. The adjustment is done by referring to the modification index table by providing a covariance relationship or eliminating indicators that have a high MI (modification index) value.

Table 6. Goodness of Fit Value after Modification

Fit Index	Goodness of Fit	Criteria	Cut-off Value	Description
Absolute Fit	Chi Square	Low	79,686	Marginal Fit
	Probability	≤ 0,05	0,000	Marginal Fit
	CMINDF	≤ 2,00	3,465	Marginal Fit
	GFI	≥ 0.90	0,933	Fit
Incremental Fit	CFI	≥ 0.90	0,955	Fit
	TLI	≥ 0.90	0,930	Fit
Parsimony Fit	PNFI	≥ 0.60	0,600	Fit

Source: Data Processing (2022)

The value shown in the table shows and proves that there are 4 criteria for the Goodness of Fit value that have met and there are 3 criteria that are still marginal fit. However, when referring to the opinion Hair *et al.* (2010) the marginal fit value can still be tolerated so that the model in this study can be said to be fit.

Hypothesis Testing

The next analysis in the SEM method is to test the hypotheses that have been made in this study. In addition, below, the results of the regression weight test in this study are presented as shown in the table below.

Table 7. Regression Weight Result

			Estimate	S.E.	C.R.	P	Description
PSK	<---	KK	2,324	0,400	5,805	0,000	Significant Positive
PIK	<---	KK	1,960	0,339	5,779	0,000	Significant Positive

Source: Data Processing (2022)

It can be seen that from the results of testing the hypothesis by looking at the value of the critical ratio (CR) and the probability value (P). The direction relationship on a variable can be seen from the estimate value, if the estimate value is positive then the relationship between the variables is positive, and vice versa. In addition, if the test results show a CR value above 1,96 and a probability value (P) below 0,05/5%, the relationship between exogenous and endogenous variables is significant. In detail, the research hypothesis testing will be discussed in stages according to the proposed hypothesis. Therefore, the results that can be drawn from testing the hypothesis.

Consumer fear has a positive and significant effect on consumer stocking behavior. These results can be proven by looking at the positive estimate value, namely 2,324 t-statistic values above 1,96 that is 5,805 and p-value is below 0,05 and the number is 0,000. So that H1 in this study is supported. Consumer fear has a positive and significant effect on consumer impulsive behavior. These results can be proven by looking at the positive estimate value, that is 1,960 and the t-statistic value is above 1,96 that is 5,779 and the p-value is below 0,05, which is 0,000. So that H2 in this study is supported.

CONCLUSION

This study aims to analyze the effect of the COVID-19 pandemic on stocking behavior and consumer impulse buying in the city of Tasikmalaya. There are several conclusions that can be drawn in conducting this research, where the conclusions are based on the formulation of the problem that has been described in Introduction. The author concludes as follows:

1. That consumer fear due to the COVID-19 crisis has an impact on consumer hoarding behavior in the city of Tasikmalaya.
2. That consumer fear due to the COVID-19 crisis has an impact on consumer impulse buying behavior in the city of Tasikmalaya.

LIMITATION

In the research that has been done, there are perceived limitations. Respondents in this study were conducted in the city of Tasikmalaya which is indeed not a big city, considering this, the results of the research will not have a broad impact, both theoretically and economically

if applied by business people. In addition, in distributing the questionnaires, several obstacles occurred because the distribution of the questionnaires had a very limited time and place, considering the situation was still not very conducive due to the COVID-19 pandemic.

RECCOMENDATION

Therefore, the advice that can be given for further research is that in determining respondents it can be done in a wider area and in carrying out its distribution it will be more efficient if it is done not in a pandemic situation. In addition, in future research, researchers can add moderators such as cultural differences. Thus, for further research, the data and theory used will be richer.

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