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Consumer Behavior on Buying Decision Sanitation Product in Jakarta, Tembagapura, and Bandar Lampung After the End of PPKM

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ABSTRACT

As governments impose movement restrictions to reduce COVID-19 infections, many people experienced changes in daily lives. The utilization of hand sanitizers in public spaces has increased due to the COVID-19 pandemic. Eventually, On December 30, 2022, the Indonesian government ended PPKM – the Indonesian-specific COVID-19 restrictions. Through this paper, researchers determined changes in consumer behavior towards sanitation products, how they impacted consumption, and which product categories were affected after the end of PPKM in Jakarta, Tembagapura, and Bandar Lampung. Research participants were located in three cities with total survey participants were 406. Data was collected using the convenience sampling method and a questionnaire adopting the statement of Liu et al. (2021). In analyzing the collected data, several statistical techniques were used and SEM analysis used AMOS with a two-step process. The results of this study prove that there is no change in consumer behavior in buying sanitation products (M: and SD:) and from the beginning of the COVID-19 pandemic to the end of PPKM, cleanliness has become the most important need for comfort and health (M: and SD:). This research can be used to help hand sanitizer manufacturers to rescale their production capacities and will be useful for hand sanitizer and sanitation product manufacturers to prepare their long-term marketing strategy. However, this study only focuses on hand sanitizers, while tons of sanitation products can be covered. Furthermore, this research can be conducted in more than three cities in Indonesia so that the result will be more represent the general Indonesian population.

Keywords: *Consumer Behavior, Purchase Decisions, Sanitation, The End of PPKM*

INTRODUCTION

The years 2019 to 2022 were tough years for countries in the world, especially Indonesia, and this was caused by the coronavirus pandemic that hit the world. In Indonesia, the COVID-19 pandemic was first discovered on March 2, 2020. From October 22, 2022, to October 22, 2020, Indonesia recorded 6,496,276 positive cases (Ulya-Kompas, 2022). In terms of deaths, until March 2022, Indonesia ranks second in Asia with 150,000 deaths (BBC, 2022). Though the enforcement of lockdown policies in many countries and cities can be an effective preventive measure against the spread of the virus, it has had a detrimental effect on people's daily lives as well as their physical and mental health (Bae and Chang, 2021). One of the most distinctive features of infectious diseases (such as COVID-19) in comparison to others is the appearance of fear (Pappas et al., 2009). Fear during COVID-19 is typically linked to psychological stress and emotional strain (Arpaci et al., 2020). For instance, the

general atmosphere of fear is contributed by rapid spread, uncertain transmission medium, along with high infection and death rates (Lipsitch et al., 2020). In fact, the fear of contracting the disease from others who are afflicted has developed into a persistent, unyielding psychological burden (Al Maroof et al., 2020). From a public health perspective, the World Health Organization (WHO) recommends preventive measures against the spread of viruses such as washing hands, wearing masks, and maintaining social distancing (Olapegba et al., 2021). Additionally, to stop the pandemic from spreading, the governments of numerous nations have implemented lockdowns, curfews, isolation, and home quarantine (WHO, 2019).

During the pandemic, the Indonesian government enforced PPKM, a COVID-19 activity restriction in public. On December 30, 2022, the Indonesian government ended PPKM – the Indonesian-specific COVID-19 restrictions. Hence, the research on multivitamin product buying decisions after PPKM has yet to be studied.

In addition to these government precautions, the use of hand sanitizers among the public has also become a trend since the entry of the COVID-19 pandemic. This is because several studies conducted state that hand sanitizers product such as masks and hand sanitizer can help reduce the spread of disease or the transmission of disease (Calder et al., 2020; Subedi et al., 2021; Malaguarnera et al., 2020). It was discovered in multiple studies that wearing a mask helps reduce respiratory symptoms brought on by viral infections (Gorton et al., 1999). Its high tolerance and lack of notable side effects make it the first choice as a hand sanitizer during a pandemic (Patterson et al., 2021).

The buying trend of hand sanitizers shows that consumer behavior is dynamic and contextual. Individual consumption habits change over time and are influenced by many factors, both internal and external. Consumption habits themselves reflect what, where, when, why, and how to choose, buy, consume, and stop consuming goods and services (Setyawan et al., 2022). Consumer behavior refers to the procedures used when people or groups choose, acquire, or discard goods, services, concepts, or experiences to fulfill needs and desires (Solomon, 2018). Research that was conducted by Vikovi C et al. (2022) involved 257 respondents using food supplements. Where the study results show that the main motivation for buying food supplements during the COVID-19 pandemic is the emotion of fear, because consumers perceive this new disease as a threat to their health and life. With people panicking, the activity of buying types of drugs and vitamins to maintain immunity against the COVID-19 virus is increasing, this has made stocks of vitamin medicines scarce, and prices have increased at pharmacy outlets in Indonesian territory (Nasution, 2022). A study by Liu et al. (2021) stated that people's behavior influenced their intention to purchase hand sanitizers during the COVID-19 pandemic. This is the first purchase made by consumers, and the procurement made by producers to produce hand sanitizers has increased compared to before the COVID-19 pandemic. As previous studies stated that consumer behavior could influence the intention to buy a product, this research will discuss the relationship between consumer behavior and interest in buying hand sanitizers in the current era. This research will use the Theory of Planned Behavior (TPB), which is one of the most important models in predicting individual behavior, which has served as a tool to investigate attitudes and intentions to consume functional foods (Patch et al., 2005; Nystrand et al., 2020). TPB sparked behavioral control as a variable that has the potential to influence one's purchase intention. On the other hand, the emotional turmoil triggered by the COVID-19 pandemic plays a role in influencing people's attitudes and intentions to buy food supplements (Labrague et al., 2021).

Tu and Hu (2018) stated that behavior control is important in TPB. This is because behavioral control describes the ability of an individual to make decisions amidst various influences that arise from a subjective norm. Behavioral control is seen as important as an independent variable as a predictor of the formation of behavioral intention, which is contained in many types of behavior, such as purchase intention, visit intention, and various other behavioral intentions (Tu and Hu, 2018). In this case, today's society is feeling the influence of changes in attitudes toward fear of the COVID-19 virus in the past. But nowadays, the COVID-19 virus is considered to be commonplace, and most people already know how to anticipate and treat it so that they are calmer in dealing with the COVID-19 virus, so some people decide to consume healthy food or traditional medicine such as herbs instead of having to take hand sanitizers. However, the influence of subjective norms arising from several circles of health practitioners can lead to conflict with this assumption because health practitioners such as doctors or pharmacists will still recommend the use of hand sanitizers as a guard for the body's immunity. Therefore, in the end, the decision is in the hands of the individual consumer himself, so this reflects the importance of behavior control.

Azjen (2012) explains that the first component of TPB is an attitude or belief that refers to the level of goodness or badness of behavior and an individual's evaluation of the behavior that is the focus of his attention. Amed et al. (2020) explained that attitude is a person's view of an object. Attitude can also be interpreted as a person's belief in being able to achieve the expected results with the behavior and values that are placed. Attitudes towards behavior reflect individual perceptions about the desire to behave and are a function of cognitive beliefs, which consist of two subcomponents, namely a strong belief that behavior leads to specific results and evaluation of these results.

The second component of TPB is subjective norms as external factors related to perceived social pressure and whether the individual should perform the behavior or not (Wahyuni et al., 2019). Subjective norm refers to a person's perception of whether other people think that a person should perform the behavior or not. This perception is a function of one's perceived expectations that one or more references think that individuals should or should not perform the behavior, and one's motivation to comply (Tu and Hu, 2018).

The third component of TPB refers to the level of ease in carrying out this behavior (Wahyuni et al., 2018). Muzakir et al. (2019) explained that behavioral control consists of ownership of the resources, abilities, opportunities, and time needed to engage in certain behaviors. Behavioral control also influences a person's intention towards an individual's motivation to behave obediently.

In conditions of changes in consumer behavior because of the COVID-19 pandemic, fear of infection is also another factor (Liu et al., 2021). So, the fear of infection becomes the main variable that will influence the intention to purchase hand sanitizer products. Fear of infection is the only independent variable in this study, while attitudes, subjective norms, and behavioral controls are intervening variables on the effect of fear of infection on the purchase intention of hand sanitizers.

Although there have been several studies related to the effect of purchasing sanitation products during the Covid-19 pandemic in general, the novelty of this research will discuss the effect of purchasing sanitation products during the Covid-19 pandemic in 3 (three) cities that have different sizes, namely Jakarta, Lampung and Tembagapura.

PPKM was officially revoked on Friday, 30 December 2022. Joko Widodo as the President of the Republic of Indonesia officially revoked the Enforcement of Restrictions on Community Activities (PPKM) in all regions of Indonesia. The

reason for the revocation of the PPKM policy is because Indonesia is a country that has managed to control the Covid-19 pandemic well, while at the same time being able to maintain economic stability.

In addition, Indonesia's Covid-19 development data has also shown improvement in recent months. However, because the Covid-19 pandemic is still not over, it is hoped that the Indonesian people will continue to implement health protocols, such as wearing masks and continuing to increase body immunity by always adopting healthy lifestyle behaviors.

After the PPKM was repealed, it was necessary to re-examine the level of consumer buying behavior towards sanitation products in the three cities of Jakarta, Palembang, and Tembagapura where previously the research was centered on PPKM.

Hence, this study will explore the impact of attitudes, subjective norms, and behavioral control on the intention to buy hand sanitizers. The study is determined to see if behavioral control, subjective norms, and attitudes in the post-covid-19 period have a positive and substantial impact on buying interest in hand sanitizers.

Based on several previous studies that served as the foundation for this research, the research topic will revolve around the subject of office employees following the repeal of PPKM, specifically as follows:

1) How has the socioeconomic background of consumers influenced their way of life, including affordability, changes in lifestyle, and consciousness of health and hygiene because of COVID-19?
2) To what magnitude has the changing way of life of consumers because of COVID-19 influenced Adaptation in their purchasing behavior?
3) In what ways has socioeconomic class influenced the adaptation in consumer purchasing behavior because of COVID-19?

LITERATURE REVIEW

COVID-19 Pandemic

The World Health Organization (WHO) on March 11, 2020, declared the outbreak of the novel coronavirus (COVID-19) a global pandemic. On March 2, 2020, Indonesian President Joko Widodo announced the first case in the country: a dance instructor and his mother in Depok, West Java. The Latest Global and Indonesian Pandemic COVID-19. The Latest Global and Indonesian Pandemic COVID-19. While the COVID-19 pandemic is still considered ongoing by the World Health Organization, WHO's Ghebreyesus stated on September 14, 2022, that "[The world] has never been in a better position to end the pandemic", citing its lowest weekly number of reported deaths since March 2020. He continued, "We're not there yet. But the end is in sight - we can see the finish line". On May 18, 2022, the Governor of Bali, Wayan Koster, requested that Bali have a COVID-19 endemic status to "accelerate the recovery of Bali's tourism and economy". On September 20, 2022, it was reported that Indonesia "…will reach the endemic stage of COVID-19".

Fear of Infection

Emotions or in this case fear or dread are known to play an important role in consumer behavior when facing the threat of COVID-19 (Kim et al., 2021). Fear of COVID-19 refers to anxiety, depression and other negative emotional impacts triggered by COVID-19 (Ahorsu et. Al., 2020). Fear, defined as an unpleasant mental state elicited by a threat or stimulus (Pakpour and Griffiths, 2020).

It has been demonstrated that fear, in the form of perceived vulnerability to threat and perceived threat severity, increases behavioral intention. During the COVID-19 pandemic, a crucial predictor of observed customer behavior connected to their restaurant visits was the concern coming from people's cognitive assessments of hazards and their capacity to participate in risk-prevention actions (Kim et al., 2021).

The COVID-19 Phobia Scale (C19P-S) was adopted to measure fear of infection that covered the examination of impacts from four primary categories of factors, including psychological factors, social factors, psychosomatic factors, and economic factors (Arparci, 2020). Out of the four categories, economic factors analyze people's fear of resources and food scarcity, while psychosomatic factors examine if individuals feel different psychosomatic problems, such as stomachaches. Nevertheless, taking into consideration that the shortage of resources and food were already alleviated at the time of this survey compared to that at the beginning of the pandemic as well as the fact that COVID-19-related symptoms were notably relieved after effective control of the disease transmission, the current study deleted the categories of economic and psychosomatic factors from its original design and focused on the evaluation of the impacts of psychological and social factors.

Consumer Behavior

Consumer behavior is defined by The American Marketing Association (AMA) as the dynamic interaction between influence and cognition, behavior, and the environment within people's way of doing exchanges (Peter and Olson, 2008). In other words, consumer behavior involves thoughts and actions in the consumption process. Consumer behavior is dynamic because the thoughts, feelings, and actions of consumers, consumers in general, are constantly changing. Kotler defines it as "Consumer behavior is the study of how people buy, what they buy when they buy and why they buy" (Kotler, 1994), and Schiffman sees the definition of consumer behavior as "the behavior that consumers display in searching for, buying, using, evaluate, and dispose of products and services that they expect will satisfy their needs" (Schiffman, 2007).

Theory of Planned Behavior (TPB)

Theory of planned behavior refers to the formation of a person's purchase interest in a product which is mainly influenced by the person's attitude or view of the product or brand (attitude), subjective norms, and behavioral control (Garcia et al., 2020). Widyarini and Gunawan (2017) describe that a person's attitude or view of a product or brand reflects the psychological image that the individual has of the product or brand.

Theory of Planned Behavior (TPB) states that there are 3 main components in influencing consumer behavior in purchase interest, including Attitudes, Subjective Norms, and Behavioral Control (Ajzen, 1991).

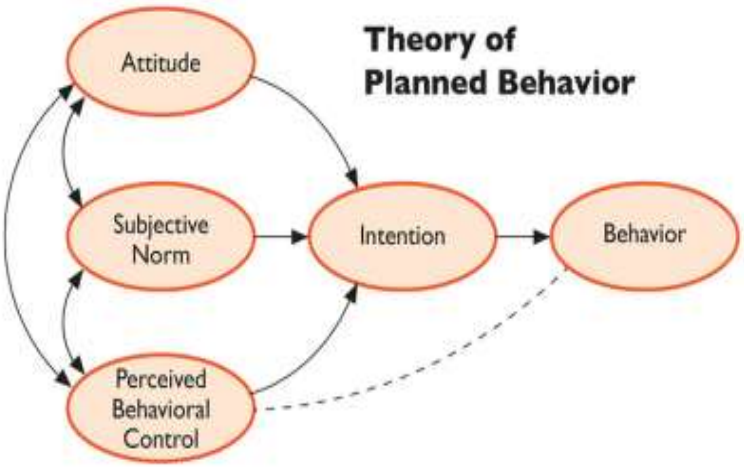

Figure I. Theory of Planned Behavior

Purchase Interest

Purchase intention is the stage of the purchase decision where at a point in the buying process, consumers must stop evaluating, consumers begin to lead to interest and desire to buy with a tendency to buy certain brands (Morissan, 2010). Purchase intention refers to consumers' response to a product/service they want to consume or obtain by evaluating the quality of the item/service. According to (Kotler, Bowen, and Makens, 2014), purchasing interest is the stage that follows a different assessment process, with the person making several decisions about the product to be purchased based on brand or interest.

The individual's intention to purchase is affected by four psychological factors, which are motivation (the urge to act to meet one's needs to relieve tension), perception (the process of choosing, organizing, and interpreting inputs to create a meaningful picture), knowledge (learning, which includes behavior changes resulting from experience), along with beliefs and convictions attained from acting and learning (Kotler and Armstrong, 2008).

Behavior Attitude

Attitude describes how a person behaves towards an object or action, whether he likes it or not. A two-pole evaluation scale helps to measure a person's attitude on accepting or rejecting an object or behavior, such as good or bad, agree or reject, and others which are termed attitudes (Ajzen and Fishbein, 1991).

Lada et al. (2009) explain attitude as how much a person evaluates or assesses an action as favorable or unfavorable. Someone to do something that he thinks has a big advantage for him will be more likely to have more intentions. So that attitudes are private and situational depending on how consumers evaluate the concepts and environmental situations around consumers that make encouragement an attitude.

In general, there are several important aspects of attitude, including (Baron et al., 2013), the attitude origin or source of an attitude is defined as a factor that influences how attitudes are formed. Attitudes are often formed based on direct experience, which has a stronger influence than indirect experience. This can increase the impact on behavior, for example, easy to remember. Attitude strength states that getting stronger in attitude will improve performance and have a better impact on behavior. The degree to which a person can concentrate on a certain object than on other general things is known as attitude specificity.

Fishbein and Ajzen (1991), there are two main components in the formation of attitudes, namely behavioral belief, which is a person's belief in behavior to encourage the formation of attitudes. Second, evaluation of behavioral beliefs, namely a positive or negative evaluation of an individual based on the beliefs they have. So that attitudes play a major role in shaping behavior (Latief, 2011) in deciding what they want in terms of individual needs and desires. The tendency of consumers to evaluate all things, including brands, subscription stores, and convenience, is considered more profitable. Attitudes are relatively difficult to change/will remain consistent with an object.

Subjective Norms

Ajzen (2005) defines a subjective norm as a person's feelings or assumptions about the expectations of people in their lives about whether certain behaviors are performed. According to subjective norms, one's social environment has an impact on their behavioral intentions, and each person's views are based on how important a certain quality is to them. Here it shows how people will make perspectives on groups and organizations very influential in forming the perceptions of Muslims themselves.

According to Miller (2005), subjective norms is people's interpretations of social pressure or the in-question behavior. According to subjective norms, people's beliefs, which are weighted according to how important a certain quality is to each of their viewpoints, impact one's behavioral

intentions. Subjective norms consist of two components; first component is Normative Beliefs, which are described as views or beliefs about what other people expect of the individual to use as a standard for certain behavior. Opinions of important and influential figures (role figures) to individuals are usually a source or related to behaving or not. Second, Motivation to comply, subjective norms are seen as dynamics or impulses that are perceived by individuals from other people around them. This is done as an effort to follow the views in doing or not doing the behavior.

Subjective norms are used as a function of normative beliefs representing behavioral preferences in an obligation to act. This model quantifies beliefs by diverting one's subjective possibilities through acts of relevance, thinking whether to follow what is being done (motivation to comply), one must perform behavior with the motivations of others.

Perceived Behavior Control

Perceived behavior control is the individual's experience and perception of difficult or simple. According to Ajzen (1991), perceived behavioral control refers to how a person believes he can influence the behavior. Perceived Behavior Control has two aspects, namely how much a person has control over the behavior and how confident a person feels capable of doing or not doing the behavior. This is determined by the individual's beliefs about the power of situational and internal factors to facilitate the behavior.

Behavioral control is expected to influence the intention of the individual's behavior, so a strong intention will result in behavior only if the individual's behavioral control is also strong. A person's behavior depends on the interaction between attitudes, beliefs, and behavioral intentions. Meanwhile, behavioral intention is influenced by perceived behavioral control, which is a condition of the belief that an action is easy or difficult to do. Besides that, it can be influenced by past experiences and obstacles that need to be considered (Tjahyono, 2005).

Direct influence is possible if there is actual control that affects an individual's behavior. A greater perception control is caused by having a more positive attitude toward conduct and subjective norms. The result will be a person's greater intention to bring up certain behaviors, one of which is buying interest. Then there is actual behavioral control in the field, if an opportunity arises, this intention will be realized. Conversely, if the field conditions do not allow the intended behavior to emerge so that it will affect the individual's perceived behavioral control, the behavior that appears is contrary to the intention (Ernawati, 2010).

Furthermore, this paper aims to determine changes in consumer behavior towards sanitation products and hand sanitizers, how they impact consumption, and which product categories are affected. The following is the aim of the research:

1) Find the impact of fear of COVID-19 on purchase interest of hand sanitizers product.
2) Find the impact of change behavior (TPB, such as behavioral attitude, subjective norms, perceived behavioral control) on purchase interest in hand sanitizer products.
3) Find the impact of fear of COVID-19 on purchase interest of hand sanitizers product towards change behavior (TPB such as behavioral attitude, subjective norms, perceived behavioral control)
4) Examined differences in buying and consuming behavior of hand sanitizers using three sample cities (Jakarta, Tembagapura, Bandar Lampung) after the PPKM situation.

The following hypotheses were developed in line with the research objectives:

1) Hypothesis 1 (H1): The fear of COVID-19 is positively associated with behavioral attitude.
2) Hypothesis 2 (H2): The fear of COVID-19 is positively associated with subjective norms.

3) Hypothesis 3 (H3): The fear of COVID-19 is positively associated with perceived behavioral control.
4) Hypothesis 4 (H4): The behavioral attitude is positively associated with purchase interest in hand sanitizer products.
5) Hypothesis 5 (H5): The subjective norms are positively associated with purchase interest in hand sanitizer products.
6) Hypothesis 6 (H6): The perceived behavioral control is positively associated with purchase interest in hand sanitizer products.

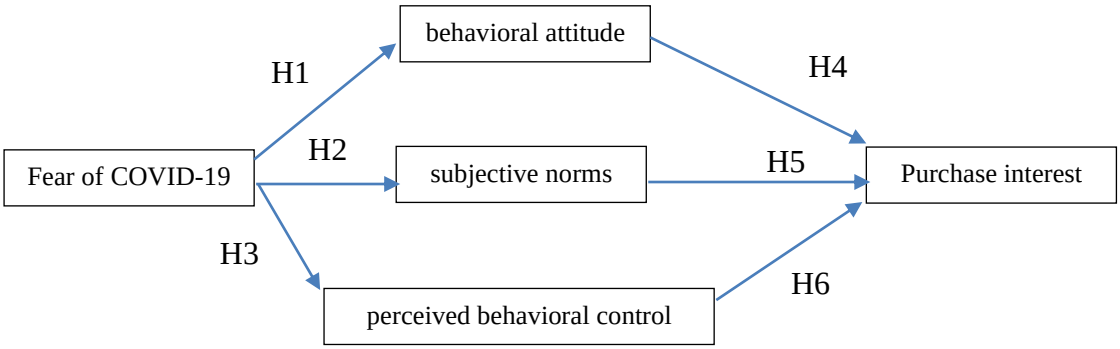

Figure II. Research Model

MATERIALS & METHODS

With a deductive theory that there is a change in the current consumption behavior of hand sanitizers, we conducted research in one city, namely Jakarta, to examine the impact of fear of infection on buying intention of hand sanitizers as mediated by attitudes, subjective norms, and behavioral control. We took a sample of 300 respondents from the city. In collecting data, this study used a quantitative method where we conducted a survey via a web survey & google form with a target of 300 respondents from Jakarta, divided by gender, age, education level, marital status, monthly income, and hand sanitizer buying experiences.

Using the convenience sampling approach, the current cross-sectional structured questionnaire-based study collected information from literate adults regardless of gender over the age of 20. A total of 300 respondents participated in the survey. The research instrument consisted of a set of statements that respondents responded to by agreeing/disagreeing, using a five-point Likert scale (1 = strongly agree; 5 = strongly disagree). The claims used in this study were taken from the literature (the research instrument consisted of a set of statements to which the respondents responded by agreeing/disagreeing, using a five-point Likert scale (1 = strongly agree; 5 = strongly disagree). Statements from the literature that were used in this study are referenced in the research instrument, which asks respondents to agree or disagree using a five-point Likert scale (1 = strongly agree; 5 = strongly disagree). The questionnaire consists of three sections. The first section involved a TPB assessment, while the second and third sections focused on the evaluation of the fear of COVID-19 and demographic data (age, gender, marital status, education level, and monthly salary), respectively. The whole questionnaire was completed by the participant.

There are 40 questions in the survey. The first question, an elimination question, is whether or not the respondent purchases hand sanitizers, whereby respondents must answer "yes" to proceed with the survey. For research purposes, a questionnaire was made consisting of three parts: general data such as identity, demographic questions for the second to sixth question. After socio-

demographic questions, and the elimination question whether they use or buy hand sanitizers, 17 questions are used to determine the impact of fear of COVID-19 and consumer behavior during a pandemic.

For assessing behavioral attitude, subjective norms, perceived behavioral control, and fear of COVID-19, we will adopt a questionnaire statement from Liu et al. (2021), whereas purchase intention will adopt the Liu et al. questionnaire statement. (2021) by developing statements. Participants were shown the statements to gauge their behavioral attitude regarding whether they had a positive or negative attitude about dietary supplements: (1) Sanitations are helpful to me; (2) The purchase of hand sanitizers is mandatory for me; (3) Buying hand sanitizers is a very sensible choice for me. Also, there are three subjective normative statements to assess the support level for using hand sanitizers from someone important to the participant: (1) My family supports my purchase of hand sanitizers; (2) My friends support my purchase of hand sanitizers; (3) People important to me support my purchase of hand sanitizers. The three statements for perceived behavioral control to assess the sufficiency of information and resources, along with the level of self-control in using hand sanitizers: (1) The decision to purchase hand sanitizers was solely on me; (2) I have the resources, time, and opportunity to purchase hand sanitizers; (3) I will buy hand sanitizers if I feel I have the need. Furthermore, four statements were used to evaluate the purchase interest in dietary supplements: (1) I am looking for information about hand sanitizers products; (2) I am more interested in buying hand sanitizers products than other products; (3) I would advise other individuals to buy a hand sanitizer product; (4) I want to buy hand sanitizers products. Four statements were used to evaluate the psychological fear of COVID-19, (1) I felt anxious about contracting COVID-19; (2) I'm worried that my family may get COVID-19; (3) I feel worried when I see people coughing since the COVID-19 outbreak; (4) I try my best to avoid seeing people sneezing during the pandemic.

Literature was adopted to support the claim of this study (Sproles and Kendall 1986). In analyzing the collected data, several statistical techniques were used, and SEM analysis was done using AMOS with a two-step process. By guaranteeing reliability and convergent and divergent validity in the initial stage, we established the quality and sufficiency of measurement by CFA. In the subsequent stage, SEM is used to examine the causal correlation between the latent variables. A maximum likelihood estimate technique was used at each stage. Several metrics were used to evaluate goodness-of-fit, including chi-square, chi-square to the degree of freedom ratio, CFI (comparative fit index), GFI (goodness-of-fit index), TLI (Tucker-Lewis index), and RMSEA (root mean square error of approximation). For sample sizing, the paper uses the Slovin formula to determine sample size.

RESULT

Demographic Characteristics

The 411 survey participants were mostly located in our three focus cities. 58% (240) of the participants are located in Jakarta, 27% (112) are located in Bandar Lampung, 14% (54) are located in Tembagapura, and 1% (5) are located in other cities. As stated earlier, the research will only focus on three cities: Jakarta, Bandar Lampung & Tembagapura. Hence, respondents from other cities will be excluded from the sample population. 36% (148) of respondents have ages ranging from 20 – 30 years old, 31% (128) are 30 – 40 years old, 22% (92) are 40 – 50 years old and only 10% (43) are 50 to 60 years old. On the other hand, males and females share a similar portion of all respondents, 51% for males and 49% for females. Almost half (48%) of the sample respondents earn more than Rp. 7.500.000 on a monthly basis.

Table I. Respondent Location

Location	No of Respondent	% of Respondent
Jakarta	240	58%
Bandar Lampung	112	27%
Tembagapura	54	13%
Others	5	1%
Total	411	100%

Table II. Respondent Age

Age Tier	No of Respondent	% of Respondent
20-30 Years Old	148	36%
30-40 Years Old	128	31%
40-50 Years Old	92	22%
50-60 Years Old	43	10%
Total	411	100%

Table III. Respondent Gender

Gender	No of Respondent	% of Respondent
Male	210	51%
Female	201	49%
Total	411	100%

Findings

All variables of the research model are generally correlated with each other, showing moderate correlations. Figure III shows the survey's results of multiple linear regression analysis. The multiple correlations of behavioral attitude, subjective norms, and perceived behavioral control moderately correlated with measures of behavioral intention (R = 0.422). The linear combination of attitude, subjective norms, and perceived behavioral control together accounted for 49.7% (adjusted R square) of the variance in behavioral intention (F[3, 92] = 32.29, P\.001). Attitude had the greatest influence (b = .42, P\.0001), followed by perceived behavioral control (b = .279, P\.001), and subjective norms (b = .166, P\.091).

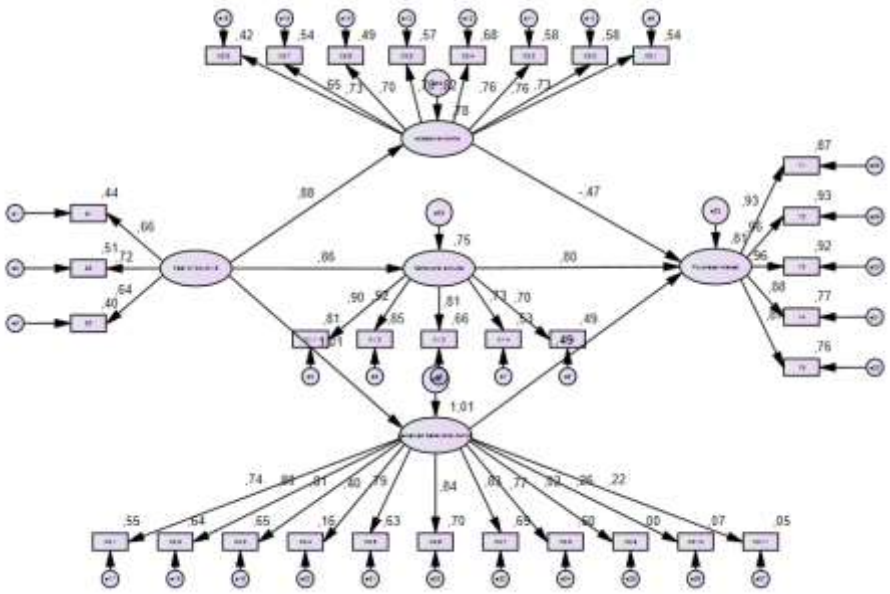

Figure III. Variable Correlation Figure

To determine whether fear of COVID-19 infection affected the scores of behavioral intentions, a one-way analysis of variance was used. For male and female respondents, there were no significant differences in the behavioral intention mean scores (F[1, 94] = .276, P\.601), with twenty-six, have used hand sanitizer. To ascertain if there was a difference in the mean behavioral intention scores between those who used hand sanitizer and those who did not, a one-way analysis of variance was carried out. There was a significant difference in the mean scores of behavioral intention between these two groups (F[1,74] = 50.54, P\.000). Only the subjects who did not use hand sanitizer were included in a separate multiple regression analysis. For this sub-sample, the

multiple correlations of attitude, subjective norms, and perceived behavioral control significantly correlated with measures of behavioral intention (R = .497).

The linear combination of attitude, subjective norms, and perceived behavioral control together accounted for 35.6% of the variance in behavioral intention (F[3,46] = 6.28, P\.011). Attitude was the only significant predictor of intention (b = .364, P\0.02). Beta coefficients for subjective norms and perceived behavioral control were .142, P\.332, and .169, P\.218, respectively. There were no significant departures from the normality, linearity, and homoscedasticity assumptions for either multiple regression analysis. No multi-collinearity, outliers, or influential cases were detected. Figure III displays the logistic regression results. The initial stage of the study included concurrently entering behavioral intention and perceived behavioral control. Then followed by entering attitude and subjective norms, and the third step involved entering behavioral, normative, and control beliefs.

Both the presumptions of the Theory of Planned Behavior and the information given in various earlier works are compatible with the sequence in which these variables are included in the regression analysis. Overall, 99% of subjects were identified as hand sanitizer users in the last 6 months. The Hosmer and Lemeshow test of model fit showed that the model adequately fits the data (Hosmer and Lemeshow Chi-square = 10.68 (df = 8) P\0.33). The odds of using hand sanitizer more than tripled for every increase of one unit of behavioral intention. The model accounted for 53.4% of the variance in the use of hand sanitizer (Nagelkerke R-square = 0.315).

Data Legal Test

Validity test

A validity test is used to evaluate a questionnaire's reliability or validity (Ghozali, 2006:45). The instrument is considered valid if it can measure the expected outcome. The instrument validity level reflects how well the gathered data adheres to the desired validity picture. By validity testing utilizing the SPSS Windows Version 23 program on a questionnaire with 32 items through a sample of 410 instrument validity trials, the degree of validity of this research instrument was determined. The Rtable value for N=310 with a 5% confidence level is 0.0966.

The validity of the instrument is determined by consulting the results of correlation calculations with r at the 5% level of confidence. If Rcount is greater than Rtable, then the instrument is declared valid and suitable for use (Ghozali, 2018). The following conclusions were drawn from the questionnaire responses of 410 respondents:

Table IV. Validity Test Results

No.	Rcount	Rtable	Criteria
1	0,600	0,0966	Valid
2	0,643	0,0966	Valid
3	0,564	0,0966	Valid
4	0,321	0,0966	Valid
5	0,340	0,0966	Valid
6	0,416	0,0966	Valid
7	0,129	0,0966	Valid
8	0,219	0,0966	Valid
9	0,156	0,0966	Valid
10	0,235	0,0966	Valid
11	0,211	0,0966	Valid
12	0,395	0,0966	Valid
13	0,261	0,0966	Valid
14	0,292	0,0966	Valid
15	0,397	0,0966	Valid
16	0,234	0,0966	Valid
17	0,392	0,0966	Valid
18	0,417	0,0966	Valid
19	0,329	0,0966	Valid
20	0,363	0,0966	Valid
21	0,431	0,0966	Valid
22	0,410	0,0966	Valid
23	0,546	0,0966	Valid
24	0,459	0,0966	Valid
25	0,405	0,0966	Valid
26	0,196	0,0966	Valid
27	0,127	0,0966	Valid
28	0,405	0,0966	Valid
29	0,418	0,0966	Valid
30	0,400	0,0966	Valid
31	0,334	0,0966	Valid
32	0,313	0,0966	Valid

Source: Data processed in 2023

As shown in Table IV, the calculated rvalue of all variable indicators is greater than the rtable value (0.0966). Therefore, all indicators used in this study are valid.

Reliability test

A questionnaire is said to be reliable or reliable if one's answers to the questions are consistent or stable from time to time. The reliability test determines how stable a measuring tool is when taking measurements of a phenomenon or occurrence. If a construct has a Cronbach Alpha value of >0.7, it is considered reliable. Table V lists the results of the reliability test:

Table V. Reliability Test Results

Variable	Value of Cronbach's Alpha	Minimal Cronbach's Alpha	Conclusion
Fear of Covid	0,864	0,700	Reliable
Behavioral Attitude	0,919	0,700	Reliable
Subjective Norms	0,947	0,700	Reliable
Perceived Behavioral Control	0,902	0,700	Reliable
Purchase Interest	0,930	0,700	Reliable

Source: Processed primary data, 2023

Table V above states that all variables have a Cronbach Alpha value larger than 0.700. Thus, all the variables are reliable.

Criteria of Goodness of Fit (GOF)

Table VI. Criteria of Goodness of Fit (GoF)

Criteria Index	Reference Value	Result
Chi-Square (χ^2)	Probability (P) > 0,05	13104,528
CMIN/df	∑ 2,00	48,028
Root mean square error of approximation (RMSEA)	< 0,08	0,000
Comparative fit index (CFI)	> 0,9 (almost 1)	1,000
Parsimonious comparative fit index (PCFI)	< 0,6	0,423
Akaike information criteria (AIC)	AIC>AIC *saturated model & independence model*	23885,851 > 1056

Table VI shows that this study fulfills the criteria of goodness of fit.

Normality test

Table VII. Normality Test Results
Assessment of Normality (Group Number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
Z1	1,000	5,000	,085	,702	-,684	-2,828
Z2	1,000	5,000	,075	,621	-,884	-3,654
Z3	1,000	5,000	,131	1,084	-,126	-,519
X2.1	1,000	5,000	,823	6,801	,832	3,437
X2.2	1,000	5,000	,159	1,316	-,891	-3,681
X2.3	1,000	5,000	,299	2,474	,034	,139
X3.1	1,000	5,000	-,094	-,779	,189	,782
X3.2	1,000	5,000	,107	,884	,266	1,098
X3.3	1,000	5,000	,355	2,934	,369	1,526
X3.4	1,000	5,000	1,034	8,546	1,401	5,789
X3.5	1,000	5,000	,165	1,360	,304	1,258
X3.6	1,000	5,000	,377	3,117	-,170	-,701
Y5	1,000	5,000	,284	2,350	-,180	-,743
Y4	1,000	5,000	,397	3,281	,112	,461
Y3	1,000	5,000	,247	2,043	-,840	-3,473
Y2	1,000	5,000	,282	2,328	-,718	-2,969
Y1	1,000	5,000	,409	3,384	-,674	-2,785
X3.7	1,000	5,000	-,070	-,583	-,815	-3,370
X3.8	1,000	5,000	,180	1,489	-,932	-3,852
X3.9	1,000	5,000	,129	1,064	-,362	-1,495
X3.10	1,000	5,000	-,221	-1,828	-,685	-2,830
X3.11	1,000	5,000	-,677	-5,599	-,447	-1,848
X1.1	1,000	5,000	,418	3,453	,206	,852
X1.2	1,000	5,000	,373	3,085	,151	,625
X1.3	1,000	5,000	,031	,257	-,381	-1,573
X1.4	1,000	5,000	,624	5,162	,134	,555
X1.5	1,000	5,000	,376	3,106	,032	,133
X2.4	1,000	5,000	,053	,440	,304	1,257
X2.5	1,000	5,000	,384	3,176	,097	,399
X2.6	1,000	5,000	,443	3,664	,432	1,787
X2.7	1,000	5,000	,001	,011	,048	,197
X2.8	1,000	5,000	,972	8,036	1,503	6,213
Multivariate					1066,312	231,428

Based on testing on the normality test table, it is known that there are variables having skewness and kurtosis values ranging from 1.0 to 1.5, or the critical ratio value (c.r) must meet the requirements of -2.58 < c.r < 2.58. So, the researchers deleted 100 data from observations that were below 0.05 and carried out a normality test again.

Assessment of Normality (Group Number 1)						
Variable	**min**	**max**	**skew**	**c.r.**	**kurtosis**	**c.r.**
Z1	1	5	-0,037	-0,266	0,024	0,084
Z2	1	5	-0,53	-3,808	0,125	0,451
Z3	1	5	-0,373	-2,678	-0,576	-2,07
X2.1	1	5	0,03	0,215	0,001	0,003
X2.2	1	5	-0,059	-0,423	-0,073	-0,262
X2.3	1	5	-0,043	-0,309	-0,001	-0,003
X3.1	1	5	-0,565	-4,062	0,126	0,454
X3.2	1	5	-0,414	-2,979	0,06	0,217
X3.3	1	5	-0,099	-0,708	-0,181	-0,65
X3.4	1	5	-0,426	-3,065	0,023	0,082
X3.5	1	5	-0,243	-1,743	0,256	0,918
X3.6	1	5	0,02	0,143	-0,403	-1,448
Y5	1	5	0,101	0,725	-0,049	-0,175
Y4	1	5	0,051	0,365	0,018	0,064
Y3	1	5	-0,565	-4,062	0,126	0,454
Y2	1	5	-0,038	-0,275	-0,02	-0,073
Y1	1	5	-0,412	-2,959	0,039	0,141
X3.7	1	5	-0,364	-2,616	0,03	0,108
X3.8	1	5	-0,35	-2,514	0,019	0,068
X3.9	1	5	0,15	1,076	-0,231	-0,83
X3.10	1	5	-0,148	-1,061	-0,592	-2,127
X3.11	1	5	-0,666	-4,785	-0,241	-0,865
X1.1	1	5	0,051	0,365	0,018	0,064
X1.2	1	5	0,024	0,173	0,019	0,07
X1.3	1	5	0,082	0,589	-0,105	-0,377
X1.4	1	5	0,547	3,933	0,679	2,44
X1.5	1	5	0,366	2,631	0,711	2,554
X2.4	1	5	-0,571	-4,106	-0,01	-0,037
X2.5	1	5	0,05	0,359	-0,093	-0,335
X2.6	1	5	0,01	0,07	0,026	0,094
X2.7	1	5	-0,396	-2,85	0,056	0,201
X2.8	1	5	-0,043	-0,309	-0,001	-0,003
Multivariate					2008,097	378,971

Based on the second test with n = 310 in the normality test table, it is known that there are variables that have skewness and kurtosis values ranging from 1.0 to 1.5 or the critical ratio value (c.r) must meet the requirements of -2.58 < c.r < 2,58. Therefore, the variables are shown to be normal.

Model structural test

Table VIII. Model Structural Test Results

Influence between variables	**Estimation**	**Probability**	**R Square**
Fear of Covid -- > BA	0,857	0,000	0,810
Fear of Covid -- > SN	0,969	0,000	
Fear of Covid -- >PBC	0,463	0,000	
BA -- > PI	0,379	0,000	
SN -- > PI	0,887	0,000	
PBC -- > PI	-0,293	0,011	

The magnitude of the number R Square (R2) is 0.810. This figure is seen to see the magnitude of the influence of the variables Fear of covid, BA, SN, and PBC combined on PI (Purchase Interest) by calculating the coefficient of determination (KD) using the following formula:

KD = r2 X 100%
KD = 0,810 X 100%
KD = 81,0 %

This figure means that the effect of the

variables Fear of covid, BA, SN, and PBC on PI simultaneously is 81%, while the remaining 19% (100% -81%) is influenced by other factors. To see the magnitude of the variables Fear of covid, BA, SN, and PBC to PI partially, the estimation column is used in the table above, while the probability column is used to see the significance.

1) The effect of the Fear of Covid variable on the perception of Behavioral Attitude (BA)

To see whether there is a linear relationship between FoC and BA, you can perform the following analysis steps:
Hypothesis Conditions:
Ho: There is no linear relationship between FoC and BA
Ha: There is no linear relationship between FoC and BA

With the following criteria:

a. If the research probability <0.05, then Ho is rejected, and Ha is accepted.
b. If the research probability > 0.05, then Ho is accepted, and Ha is rejected.

The calculation results show the number 0.000 <0.05, meaning that there is a linear relationship between FoC and BA. The magnitude of the influence of FoC with BA is 0.857 or 85.7%. FoC has a significant and positive effect on BA. That is, if the FoC increases, the amount of BA will increase, and vice versa.

1) The influence of the variable Fear of Covid (Foc) and Subjective Norms (SN)
   The calculation results show the number 0.000 > 0.05, meaning a linear relationship exists between FoC and SN. The magnitude of the influence of FoC with SN is 0.969 or 96.9%. FoC has a significant and positive effect on SN. That is, if the FoC increases, the number of SN will increase, and vice versa.
2) The influence of the Fear of Covid (Foc) variable on Perceived Behavioral Control (PBC)
   The calculation results show the number 0.000 <0.05, meaning that there is a linear relationship between FoC and PBC. The magnitude of the influence of FoC with PBC is 0.463 or 46.3%. FoC has a significant and positive influence on PBC. If the FoC increases, then the number of PBC will increase, and vice versa.
3) The influence of the Behavior Attitude (BA) variable on Purchase Interest (PI)
   The calculation results show the number 0.000 <0.05, meaning that there is a linear relationship between BA and PI. The magnitude of the influence of BA with PI is 0.379 or 37.9%. BA has a significant and positive influence on PI. If BA increases, the number of PI will increase, and vice versa.
4) The influence of the Subjective Norms (SN) variable on Purchase Interest (PI)
   The calculation results show the number 0.000 > 0.05, meaning that there is no linear relationship between SN and PI. The magnitude of the influence of SN with PI is 0.887 or 88.7%. SN has a significant and positive influence on PI. If SN increases, then the number of PI will increase, and vice versa.
5) The influence of the Perceived Behavioral Control (PBC) variable on Purchase Interest (PI)
   The calculation results show the number 0.011 <0.05, meaning that there is a linear relationship between PBC and PI. The magnitude of the influence of PBC with a PI of 0.293 or 29.3%. PBC has a significant and negative effect on PI. If the PBC increases, the number of PI will decrease, and vice versa.

DISCUSSION

This is another application of the Theory of Planned Behavior to the use of hand sanitizer in a population of Indonesian citizens. The findings extend previous applications of the Theory of Planned Behavior in Indonesia for different cases. As stated previously, attitude, subjective norms, and perceived behavioral control predicted behavioral intention to use hand sanitizer, yet only attitude and perceived

behavioral control had a statistically significant impact. These results support the application of the Theory of Planned Behavior to predict behavioral intention and the use of hand sanitizer. Attitude, subjective norms, and perceived behavioral control together significantly predicted behavioral intention. Thus, a stronger behavioral intention to use hand sanitizer was substantially positively correlated with having a greater attitude and having more perceived control over using hand sanitizer. Additionally, the younger population may choose to purchase hand sanitizer if there is greater perceived social pressure to do so. These findings contradict the earlier results among Indonesian respondents.

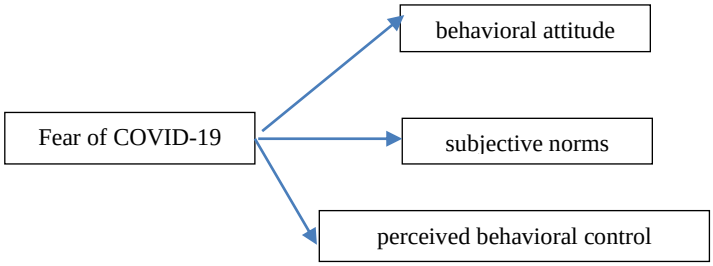

Figure IV. Beta coefficients and correlations between fear of COVID-19 infection and behavioral attitude, subjective norms, and perceived behavioral control based on results of multiple linear regression analysis.

The study shows that behavioral attitude of respondents from Jakarta, Tembagapura, and Bandar Lampung influenced their behavioral intention to use hand sanitizer. However, attitude had the least effect. According to the Theory of Planned Behavior, the only predictor of behavior is behavioral intention (using hand sanitizer). The odds of taking hand sanitizer more than tripled for every increase of one unit of behavioral intention. Analysis of beta coefficients of behavioral and control beliefs that are the underlying constructs of attitude and perceived behavioral control, respectively. The two behavioral beliefs are; taking a multivitamin supplement each day next week would help me look, and feel better, and taking a multivitamin supplement each day next week would help me to get nutrients I do not get in my diet, whereas one control belief is I can afford to buy multivitamin supplements, had a statistically significant impact on behavioral intention. The strongest influence was that using hand sanitizer will improve respondents' appearance and feelings (b = 0.112, P\.019). The prevention of COVID-19 information using folic acid was initially limited to women who can get pregnant, including the good source of food for folic acid, what folic acid is, and the importance of using hand sanitizers. Interestingly, not one of the eight respondents who completed the preliminary open-ended questionnaire listed prevention of COVID-19 as a reason to take hand sanitizer. Instead, they perceived factors such as increase in energy, feeling well, and looking good. Health care professionals would unlikely think of these factors as benefits of using hand sanitizer.

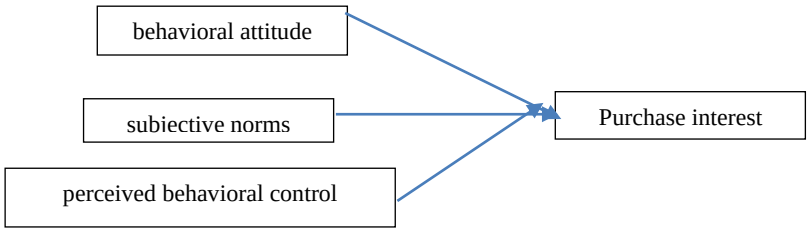

Figure V. Beta coefficients and correlations between behavioral attitude, subjective norms, perceived behavioral control and purchase interest based on multiple linear regression analysis results.

Despite years of educating capable-pregnancy women on the importance of hand sanitizers in preventing COVID-19, this does not apply to college-aged individuals. This corroborates that educational campaigns were unsuccessful The results of our research, and the results of at least one other study based on a sample of college aged adults, consistently showed that prevention of COVID-19 is not a reason why females in this age group use hand sanitizer. Rather, intention to use hand sanitizer is influenced by factors not related to prevention of COVID-19. For instance, the largest influence on behavioral intention comes from the conviction that using hand sanitizer would make individuals feel and look nice. Hence, including messaging like "hand sanitizer will help you feel and look good" and "hand sanitizer will help you to receive nutrients you may not get in your diet" in educational efforts aimed towards Caucasian female adults may have a significant influence on COVID-19 prevention. Health care professionals may be willing to convey a message that taking a daily hand sanitizer will help to obtain nutrients people may not be getting enough from a diet.

However, more than likely, many health care professionals will consider a belief that taking hand sanitizer will help people to feel and look better to be a misconception. Thus, it may be very difficult to convince those who market the use of hand sanitizer for the primary prevention of COVID-19 to use such messages in educational campaigns. The fact that college-aged individuals believe using hand sanitizer will make them feel and look good, regardless of how accurate the claim may be, should be considered by medical experts. Our findings are consistent with those of Dorfman (2004) who reported the findings of focus groups conducted by a social marketing committee of the North Carolina Chapter of the March of Dimes. In that study, body image and a concern for good looks were among the most important factors identified by young adults age 20–30 from Jakarta who were asked about what health issues mattered most for women of their age. Young adults place a high value on appearance, size, and body image, resulting in a lack of confidence. Many people attempt to enhance their appearance through various ways, such as diets, exercise, and cosmetic surgery (Miller et al. 1980). Compared to other ways, using hand sanitizer is the easiest and most affordable way to improve looks and image. Hence, the results of this study might have practical effects on hand sanitizer marketing and, eventually, COVID-19 prevention.

CONCLUSION

When the government places limitations on movement as part of efforts to reduce the number of people infected with COVID-19, more and more of us are radically changing our everyday routines. Working from home, being temporarily jobless, homeschooling children, and not being in direct contact with other family members, friends, or coworkers are all new realities that require some getting used to. All of us may find it challenging to adapt to these lifestyle adjustments, control our fear of getting sick, and worry about people in our lives who might be more vulnerable.

The COVID-19 pandemic has already improved the public's ability to transact business. Consumption habits and context-specific factors such as social, technical, regulatory, and environmental disasters influence or interfere with consumption behavior (Sheth, 2020). In Jakarta, Tembagapura and Bandar Lampung, the COVID-19 outbreak has had a direct and long-term impact on consumer behavior in purchasing sanitation.

Understanding consumer behavior in buying sanitation products after PPKM in three cities, namely Jakarta, Tembagapura, and Bandar Lampung, by offering some crucial insights to always maintain health, where the results of this study show that there is no change in behavior in buying sanitation for white-collar workers. From the beginning of the COVID -19 pandemic till the conclusion

of PPKM, cleanliness has been their essential need for comfort and health. Sanitation items that are easy to transport, highly beneficial to preserving health, and effective in preventing COVID -19.

Fear of Covid has a significant and positive influence on Behavioral Attitude, Subjective Norms, and Perceived Behavioral Control; Behavioral Attitude has a significant and positive influence on Purchase Interest; Subjective Norms have a significant and positive influence on Purchase Interest; Perceived Behavioral Control has a significant and negative influence on Purchase Interest. In conclusion, although PPKM has ended, a particular sanitation item, such as hand sanitizers, is still important to minimize fear of COVID-19 infection among the population in Jakarta, Bandar Lampung & Tembagapura.

The finding of this research can be used to help hand sanitizer manufacturers for the purpose of rescaling their production capacities. Also, this research will be useful for hand sanitizer and sanitation product manufacturers to prepare their long-term marketing strategy. However, there are some gaps that should have been covered by this research. First, the research only focuses on hand sanitizers, while there are tons of sanitation products that can be covered. Second, the research was only conducted in three cities in Indonesia, while Indonesia has more than 100 cities. Hence, this research does not represent the general Indonesian population.

Declaration by Authors

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