

## **FACTORS THAT AFFECT CUSTOMER SATISFACTION IN ONLINE SHOPPING FOR MULTIVITAMIN SUPPLEMENT DURING PANDEMIC OF COVID-19 IN INDONESIA**

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### **Abstract**

The online purchase of multivitamins during the COVID-19 pandemic has increased significantly because of not only the fact that until now there is no specific treatment for the infection but also the fear of being infected.

**Purpose** - This study aims to investigate the direct influence of determinant factors of customer satisfaction, and the mediating factors of customer satisfaction and fear of COVID-19 in increasing repurchase intentions during the pandemic on multivitamin and micronutrient.

**Design/Methodology/Approach** - This study used quantitative research and data collection was collected using questionnaire. The target population of this research were people that have purchased online multivitamin in e-commerce in Indonesia during pandemic COVID-19. The number of samples were determined to be which 235 samples. The sampling technique use was purposive sampling. Partial Least Square-Structural Equation modelling (SEM-PLS) is applied to this study.

**Findings** - The study result indicated that the repurchase intention was positively affected by customer satisfaction that effected by site design, product price, time saving, product information linked to customer satisfaction and directly influenced by the fear of COVID-19.

**Research Limitation/Implication** - This study only focuses on security, site design, product prices, product quality, product delivery, time, and product information. There are still many other variables that can affect consumer satisfaction in influencing repurchase intention.

**Practical implication** - This study suggests that to retain repurchase intention during this pandemic, practitioner of m-commerce should increase their customer satisfaction by improving the determinant factors of e-commerce and taking emotional factor into consideration.

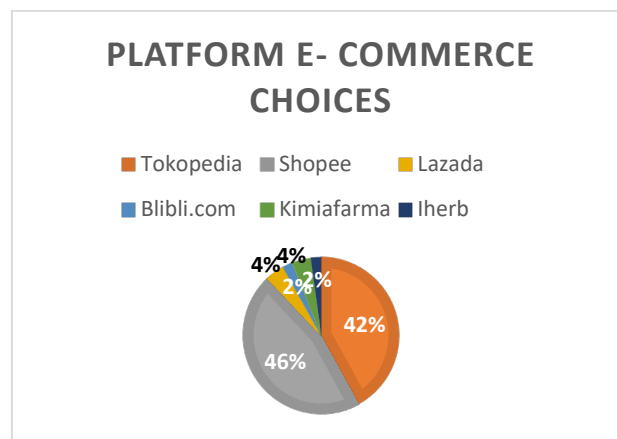
**Original/value** - This journal provides input for online shopping platform management to pay more attention to factors that are important to be maintained and improved in order to increase consumer satisfaction which will positively affect repurchase intention.

**Keywords:** Repurchase intention; Consumer satisfaction; Fear of COVID-19; Online shopping; Multivitamins; COVID-19

### **BACKGROUND**

Since 2019, the COVID-19 pandemic has been ongoing and has spread throughout the world, with confirmed cases almost reaching 433,619,116 world population in February 2022 (World Health Organization, 2022). In a health crisis situation like this, the government was required to act quickly not only to deal with increasing cases but also the impact of the crisis. Since the first case of COVID-19 in Indonesia was identified, the government immediately has issued and implemented several policies related to accelerating the handling of COVID-19. One of these policies was the Large-Scale Social Restriction Policy (PSBB) since March 2020 which limited human economic activities. This policy caused limitation on people's activities which disrupted the process of buying and selling goods, and later forced the business world to look for various alternatives to restore economic activity, one of which was the change in online sales to online media platforms (Fahrika & Roy, 2020).

The change from a traditional market to a digital-based market to develop a business by creating a new platform is a strategy that needs to be reviewed carefully, such as determining the factors that affect consumer satisfaction shopping online. The quality of e-service that affects customer satisfaction when shopping online has been carried out in previous studies, including security factors, availability of information, price, product quality, time, web design, and delivery procedures (Rita et al., 2019a; Udofot et al., 2020; Vasic et al., 2019). However, the influence of consumer satisfaction as a mediating factor in increasing repurchase intention during the pandemic which caused changes in consumer behavior has not been widely reviewed. In order to find out which platforms are usually visited by respondents to purchase multivitamins during the COVID-19 pandemic, this study conducted a preliminary test deployment by providing the following e-commerce platform options.



**Figure 1. Preferred Preliminary test platform e-commerce**  
Source: The results of data processing in research (2022)

The preliminary test that has been distributed has received 50 respondents. As many as 46% or 23 respondents chose Shopee and 42% or 21 respondents chose Tokopedia, followed by other platforms, namely Kimia Farma, Lazada as much as 4% or 2 respondents, Blibli as many as 1 respondent, and iHerb as many as 1 respondent. Based on the results of the preliminary test above, Shopee and Tokopedia were chosen to be the objects of this research.

Purchasing multivitamins and micronutrients based on research using Google Trend Tools (GTT) in the first and second waves of the COVID-19 pandemic shows an increase in the number of consumers who started using multivitamins from the first wave of COVID-19 by 9.3% to 25% after the second wave of COVID-19. The COVID-19 pandemic is impacting the stress and fear levels of individuals around the world. The resulting fear has social and psychological effects. Psychosocial impacts that arise can be in the form of stigmatization, discrimination, and loss. Previous research has shown a positive relationship between their level of fear of the pandemic and their intention to buy dietary supplements repeatedly (Wong et al., 2021). This research will be conducted based on the experience of consumers who have made transactions on an e-commerce platform that sells multivitamins and micronutrients. The purpose of this study was to determine the quality of e-service that has the most influence on e-commerce consumer satisfaction during the COVID-19 pandemic, as well as the relationship between consumer satisfaction and fear of being exposed to COVID-19 on repurchase intention of multivitamins and other micronutrients.

## **LITERATURE REVIEW**

### **Online Shopping Security Variables**

Security is defined as the website's ability to protect consumer's personal data from unauthorized use of information during electronic transactions. Security is considered as an important factor that is taken seriously by online purchasing consumers (Ingaldi & Brožova, 2020). According to Olufemi and Mercy (2020). The security that consumers feel is related to the security of the transaction as a whole, which includes the means of payment, the mechanisms for storing and transmitting all personal information. The perceived lack of security is the main reason for many potential consumers not to use digital trading platforms due to the general perception of the risks involved in transmitting sensitive information, such as credit card numbers on the Internet (Hsu & Minh Luan MBA, 2017).

### **Online Shopping Site Design Variables**

Site design is the first dimension of the quality of electronic services (e-service) (Rita et al., 2019). The previous decades did not consider that the quality of a site's design affects the overall buying process. Content on a website which includes text, images, graphics, layout, sound, motion, and others is a very important parameter for effective web design (Rita et al., 2019).

### **Online Shopping Product Delivery Process Variables**

On-time delivery and handling are a fairly important rating for predicting customer satisfaction compared to price, which is often emphasized by research on e-commerce (Vasic et al., 2019). Delivery is a link that directly affects and triggers customer satisfaction. In online shopping, reliable, safe, and timely delivery is the main thing that drives consumer satisfaction.

### **Online Shopping Product Quality Variables**

Perceived product quality is defined as the consumer's assessment of the overall superiority or reliability of the product. Handoko (2016) states that product quality (PQ) is a product or service feature that depends on its ability to meet actual or implied customer needs (Laras & Putri Handoko, 2016). Product quality is also defined as the actual functionality of the product, the consistency between the quality specifications of the online store, and the actual quality of the physical product (Fitryanti, 2021).

### **Variable Prices of Online Shopping Products**

According to some literatures, price is an important factor in customer satisfaction due to the fact that consumers always direct their attention to price when evaluating a product or service. From the consumer's point of view, price is what is sacrificed or risked obtaining a product (Novialeta & Slamet, 2021).

### **Online Shopping Time Variable**

Time saving is one of the most influential factors in online shopping. Time is the main resource that consumers spend when they buy online or in traditional stores (Novialeta & Slamet, 2021). Time savings when shopping online is defined as a comparison between the time available with the amount of activity and the duration of time that needs to be done (Richbell, 2007).

### **Online Shopping Product Information Variables**

Buyers expect e-commerce or online retailers to provide all relevant and accurate information about a product, because online shoppers rarely have the opportunity to touch and feel the product before making a purchase decision. Product information quality refers to

consumer perceptions of the accuracy, relevance, timeliness, completeness, consistency, and format of information presented on websites about products and transactions (DeLone & McLean, 2003).

### **Consumer Satisfaction Variable**

Customer satisfaction is the result of a consumer's experience during various stages of purchase. For consumers who make online transactions, as a result of limited physical contact with the products they want, all information provided by e-commerce providers or online stores can affect consumer satisfaction, both in the information search stage and during the purchase decision phase (Eid, 2011).

### **Variable Fear of Exposure to COVID-19**

Emotions in the form of fear of being exposed to COVID-19 play an important role in consumer behavior. Fear is defined as an unpleasant mental state evoked by a threat or stimulus (Kim et al., 2021). Fear is one of the primitive human emotions associated with instinctive responses that are essential for survival (Latour, M. S., & Zahra, S. A, 1988).

### **Variable Repurchase Intention**

Intention refers to the degree to which a conscious effort will be followed by an individual to consent to his behavior. Intention is also considered as one of the components of behavioral motivation (Ali & Bhasin, 2019). Purchase intention will occur when an individual plans to buy certain commodities or services in the future in an effort to meet their needs. In the context of e-commerce, online purchase intention can be defined as a situation when a person wishes to buy certain products or services through the website (Chen, Hsu & Lin, 2010).

## **Hypothesis Development**

### **Relationship between Safety and Customer Satisfaction**

Based on a study conducted by Udo (2001), it was reported that 70% of online shoppers will conduct online transactions when they feel protected in terms of privacy and security (Udo, 2001). The security of transactions in the online shopping system is an important factor to attract customers, considering the security of a retail site that will affect customer satisfaction. H1: Security is positively related to customer satisfaction.

### **Relationship between Site Design and Consumer Satisfaction**

A good website design must emphasize usability by providing design aesthetics, reflecting a strong character and associative image of the brand, and being able to increase consumer perceptions of a product and service. Perceptions of website design directly contribute to perceptions of overall service quality (Rita et al., 2019). Based on the above, the following research hypotheses were established. H2: Website design is positively related to customer satisfaction.

### **Relationship between Product Delivery Process and Consumer Satisfaction**

The delivery process is a matter that is directly related to the supply chain that affects and triggers customer satisfaction. Delivery is a crucial activity in online shopping (Laras & Putri Handoko, 2016). H3: Delivery has a positive effect on customer satisfaction.

### **Product Quality Relationship with Consumer Satisfaction**

Perceived product quality is the most powerful determinant related to satisfaction by minimizing product costs and maximizing product quality so that it is considered a major factor

in the success of e-commerce (Fitryanti, 2021). H4: Product quality has a positive effect on consumer satisfaction.

### **Product Price Relationship with Consumer Satisfaction**

A number of studies have concluded that pricing is significantly related to customer satisfaction and directly affects the perceived value and usefulness of the transaction being delivered, and results in customer satisfaction (Haq, 2019). H5: Product price has a positive effect on customer satisfaction.

### **Relationship of Time (Time Consuming) with Customer Satisfaction**

Online consumers pay attention to the benefits of buying, saving time, and choice. While offline consumers are more concerned about security, privacy, and on-time delivery. By purchasing online, consumers will avoid traffic jams, will not need to find a parking space, and will not have to queue or be part of the crowd at the store. H6: Time has a positive effect on customer satisfaction

### **Relationship between Product Availability Information and Consumer Satisfaction**

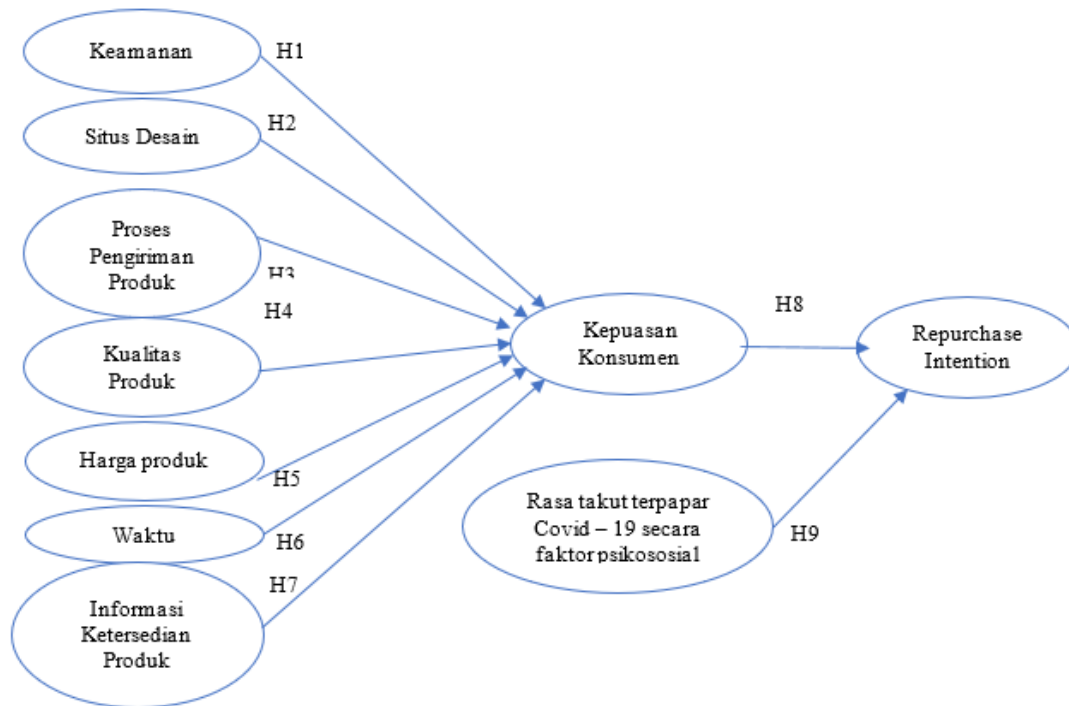
Al-Tit (2020) found that the quality of information provided in online stores represents the quality of e-commerce that contributes to developing consumer loyalty, as long as it is accurate, relevant, and so on. Based on the above, the following research hypotheses were established. H7: Availability of information has a positive effect on customer satisfaction.

### **Relationship between Customer Satisfaction and Repurchase Intention**

If consumers are satisfied, it will create good cooperation and relationships between consumers and companies (Holloway & Beatty, 2008). Repurchase intention is the process of purchasing individual goods or services from the same company (Boon Liat & Shi Wuan, 2014), and the reasons for repurchasing are mainly based on past purchase experiences. H8: Consumer satisfaction has a positive effect on consumer satisfaction.

### **The Relationship between Fear of Exposure to COVID-19 and Repurchase Intention**

An earlier study also showed that consumers are more likely to be attracted to products that will reduce the risk of infection when overwhelmed by pandemic fears. In addition, fear appeal can be positively associated with purchasing behavior towards certain personal protective equipment (Addo et al., 2020; Jeżewska-Zychowicz et al., 2020). Based on the above, the following research hypotheses were established. H9: Psychosocial fear of COVID-19 positively affects a person's repurchase intention towards dietary supplements.



**Figure 2. Conceptual Model**

Source: The results of data processing in research (2022)

## METHODOLOGY

This research uses quantitative study method with cross sectional approach. The method in this research is non-probability sampling with purposive sampling technique. The sample requirements are respondents who have made transactions on one of the e-commerce platforms at Tokopedia and Shopee to buy multivitamins and micronutrients during the COVID-19 pandemic and are 15–64 years old. Calculation of the number of samples in this study is based on a minimum of 5–10 times the total indicator. The indicators in this study amounted to 43 indicators so the number of samples should be between 215–430 respondents. In this study, the number of samples included in the inclusion criteria was 235 respondents (Hair, 2012). Other criteria according to Memon et al. (2020) recommends that the number of samples used for the multivariate statistical analysis technique (PLS-SEM) is between 160 and 300 valid samples. In this study, sampling was carried out by distributing online questionnaires in the period January to February 2022 to respondents who had used online platforms or e-commerce.

Primary data was obtained through a questionnaire distributed online. The questions given in the questionnaire related to variables in the form of statements and respondents were asked to fill in the level of agreement with the statement using a 5-point Likert scale. The questionnaire was also equipped with questions regarding the respondent's profile. In this study, secondary data is the source of data obtained from reading, books, and other written sources. Secondary data generally cannot be processed but can provide important information related to research (Bougie & Sekaran, 2020). The data analysis method used was Partial Least Squares - Structure Equation Modelling. Evaluation of the outer model measurement model is carried out by testing the convergent validity with the condition that the loading factor value is above 0.4, the average variance extract (AVE) value is above 0.5 and the composite reliability value must be greater than 0.7 (Hair et al., 2011). After that, an evaluation of the structural model (inner model) was carried out with the criteria that the research results were accepted if the t-statistic > 1.65. Overall there are forty-three indicators in the research variables, namely safety,

delivery process, product quality, product price, usage time, product information and customer satisfaction which consists of 26 indicators adopted by Vasic et al. (2019). The site design variable consists of six indicators adopted by Rita et al. (2019). The repurchase intention variable consists of three indicators and the Fear to covid variable consists of eight adopted indicators (Liu et al., 2021). Before distributing the questionnaires to 235 people, a pre-test was first conducted to determine the validity of the indicators used and the reliability of existing variables. The pretest was conducted on 50 people who had purchased multivitamins and micronutrients at Tokopedia or Shopee at least once during the COVID-19 pandemic. The results of the pre-test show that all indicators are valid, and all variables are reliable so that it is feasible to distribute the actual questionnaire.

## **FINDING AND DISCUSSION**

The results of this study are to see and to analyse the data obtained based on the respondent's profile, descriptive statistical analysis, and inferential analysis. This research was conducted with two measurement sub-models, namely the outer model and the inner model. The outer model was conducted to test the validity and reliability of the model. While the inner model was done to test the hypothesis through the path coefficient, R-square, and VIF.

**Table 1. Respondent Profiles**

<b>Demographic Variabele</b>	<b>Category</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Gender</b>	Male	47	20.1
	Female	188	79.9
<b>Age (years)</b>	15 - 17	1	0.5
	18 - 25	26	10.9
	26 - 35	150	63.8
	36 - 45	41	17.6
	46 - 55	8	3.5
	55 - 64	9	3.7
<b>Job/Professions</b>	Students	4	1.7
	Private Employee	24	10.2
	Civil Servant	40	17.2
	Entrepreneur	15	6.2
	Doctor	70	29.7
	Nurse	7	3.1
	Others	75	31.9
<b>Education</b>	High School	1	0.6
	Diploma (D1/D2/D3)	31	13.3
	Bachelor (S1)	127	53.9
	Magister/Doktoral (S2/S3)	22	9.5
	Specialist Doctor	35	14.8
	Others	19	7.9
<b>Domicile</b>	Jakarta	40	17.1
	Bogor, Tangerang, Bekasi	29	12.5

	Surabaya	36	15.4
	Bandung	35	14.7
	Riau Island	55	23.4
	Others	40	16.9
<b>Platform E-Commerce</b>	Shopee	152	64.7
	Tokopedia	83	35.3

Source: The results of data processing in research (2022)

Of the 254 questionnaires distributed, there were 235 appropriate questionnaires used in this study with a response rate of 94 percent. Table 1 presents the criteria for respondents, where based on gender, it can be seen that in this study there were more female respondents than men with a percentage of 79.7% and 20.1%, respectively. Based on respondents 15–18 years as many as 1 person (0.5 percent), 18–25 years as many as 27 people (10.9 percent), 26–35 years as many as 162 people (63.8 percent), 36–45 years as many as 45 (17.8 percent), 46–55 years as many as 9 people (3.4 percent), and for those aged over 55 years as many as 10 people (3.7 percent). The background of the respondents obtained by students as many as 4 respondents (1.7 percent), private employees 26 respondents (10.2 percent), government employees 43 respondents (17.2 percent), entrepreneurs 15 respondents (6.2 percent), doctors 76 respondents (31.1 percent), nurses 7 respondents (3% percent), and other professions 81 respondents (32.9 percent). Respondents of educators consist of high school students 2 respondents (0.7 percent), diploma 34 respondents (13.2 percent), bachelor degrees 137 respondents (53.9 percent), masters/doctors respondents 24 respondents (9.5 percent), specialist doctors 37 respondents (14.8 percent and other education 20 respondents (7.9%) In this study 43 people live in Jakarta (17.1 percent), Jabotabek 32 people (12.5 percent), Surabaya 40 people (15.5 percent), Bandung 37 people (14.5 percent), Riau Islands Province 59 people (23.4 percent), and others live 43 people (17 percent). The platforms chosen by respondents to shop for multivitamins include Shopee 147 people (57.7 percent), Tokopedia 75 people (29.3 percent), Lazada 6 people (2.8 percent), Blibli 15 people (5.6 percent), Bukalapak 1 person (0.4 percent), and other e-commerce people as many as 10 people (3.7 percent).

**Table 2. Result of Validity and Reliability Measurement**

<b>Indicator</b>	<b>Loading Factor</b>
<b>Safety (SA) (CR=0.795/AVE=0.566)</b>	
[SA1]: When buying multivitamins or micronutrients online through Tokopedia or Shopee websites, I trust to provide my credit/debit card number.	0.669
[SA2]: When buying multivitamins or micronutrients online, there is no risk of loss of privacy.	0.807
[SA3]: When buying multivitamins or micronutrients online, there is no risk of identity theft.	0.774
<b>Site Design (SD) (CR=0.847/AVE=0.540)</b>	
[SD1]: Tokopedia or Shopee website, visually pleasing to choose multivitamin or micronutrient.	0.665
[SD2]: Tokopedia or Shopee websites, no difficulty in making online payments.	0.734
[SD3]: Tokopedia or Shopee sites, display content that is easy to read visually.	0.810
[SD4]: Tokopedia or Shopee sites, these have effective product information.	0.837
[SD5]: I can interact with the Tokopedia or Shopee websites to get information tailored to my specific needs.	0.761
[SD6]: When I use the Tokopedia or Shopee websites, there is little waiting time	0.571



between my actions and the website's response.

<b>Product Delivery (PD) (CR=0.837/AVE=0.537)</b>	
[PD1]: Tokopedia or Shopee's free shipping options in online shopping increase sales of multivitamins or micronutrients.	0.681
[PD2]: After online shopping for Tokopedia or Shopee, I'm sure the multivitamin or micronutrient ordered will be delivered.	0.762
[PD3]: Online purchases of Tokopedia or Shopee make consumers feel confident about the correct delivery of multivitamins or micronutrients.	0.783
[PD4]: After shopping online at Tokopedia or Shopee, I'm sure the multivitamin or micronutrient ordered will match the description.	0.828
[PD5]: After making an online purchase, the consumer is confident of the authenticity of the delivered multivitamin or micronutrient.	0.750
[PD6]: Online shopping Tokopedia or Shopee offer the option of shipping multivitamins or micronutrients on weekends too.	0.561
<b>Product Quality (PQ) (CR=0.912/AVE=0.776)</b>	
[PQ1]: Multivitamins or micronutrients ordered online at Tokopedia or Shopee are of the same authentic quality as products purchased in stores.	0.884
[PQ2]: Online purchases at Tokopedia or Shopee provide the same multivitamin or micronutrient purchase conditions as traditional shopping.	0.841
[PQ3]: Products ordered online at Tokopedia or Shopee match the products purchased at the store.	0.916
<b>Product Price (PP) (CR=0.949/AVE=0.861)</b>	
[PP1]: Online shopping at Tokopedia or Shopee saves money compared to traditional shopping.	0.918
[PP2]: Online shopping at Tokopedia or Shopee is cheaper than traditional shopping.	0.934
[PP3]: Online shopping at Tokopedia or Shopee significantly reduces costs when compared to traditional shopping.	0.932
<b>Time Saving (TS) (CR=0.766/AVE=0.747)</b>	
[TS1]: Online shopping at Tokopedia or Shopee saves time.	0.870
[TS2]: Online shopping at Tokopedia or Shopee offers the possibility of shopping 24/7.	0.865
[TS3]: Shopping online at Tokopedia or Shopee is a smart way to spend time.	0.858
<b>Product Information (PI) (CR=0.904/AVE=0.759)</b>	
[PI1]: Multivitamin or micronutrient information online at Tokopedia or Shopee is identical to product information in stores.	0.886
[PI2]: Information about multivitamins or micronutrients online at Tokopedia or Shopee is appropriate.	0.858
[PI3]: Information about multivitamins or micronutrients online at Tokopedia or Shopee is up to date.	0.870
<b>Consumer Satisfaction (CS) (CR=0.923/AVE=0.705)</b>	
[CS1]: I am satisfied that the websites on Tokopedia or Shopee offer the option of online purchases.	0.873
[CS2]: Internet shopping on Tokopedia or Shopee makes the buying process interesting.	0.853
[CS3]: I would recommend online shopping at Tokopedia or Shopee to other consumers.	0.847
[CS4]: I enjoy shopping online at Tokopedia or Shopee.	0.806
[CS5]: In my opinion, online shopping at Tokopedia or Shopee is good.	0.819
<b>Fear of COVID-19 (FCPS) (CR=0.895/AVE=0.518)</b>	
[FCPS1]: During the Corona virus pandemic, I felt very anxious when I saw people coughing.	0.641
[FCPS2]: During the Corona virus pandemic, I actively avoided people I saw sneezing.	0.804
[FCPS3]: During the Corona virus pandemic, I realized that I spent a lot of time cleaning my hands.	0.75
[FCPS4]: The fear of catching the Corona virus has seriously hampered my social relationships.	0.663

[FCPS5]: The fear of catching the Corona virus makes me very anxious.	0.576
[FCPS6]: I am very afraid that a member of my family will be infected with the Corona virus.	0.757
[FCPS7]: The news of a Corona virus-related death makes me very anxious.	0.767
[FCPS8]: The speed with which the Corona virus is spreading makes me really panicked.	0.770

\* CR = Composite Reliability; AVE = Average Variance Extracted

Based on the results of the analysis above, it can be concluded that the variables of safety, site design, product delivery, product quality, price, time, product information, consumer satisfaction, fear of exposure to COVID-19, and repurchase intention are valid and can be used in this study.

**Table 3. Discriminant Validity HT/MT Criteria**

	CS	FCPS	PD	PI	PP	PQ	RP	SA	SD	TS
CS										
FCPS	0.332									
PD	0.708	0.321								
PI	0.697	0.287	0.768							
PP	0.623	0.192	0.514	0.496						
PQ	0.638	0.296	0.810	0.681	0.486					
RPI	0.854	0.493	0.669	0.586	0.533	0.633				
SA	0.287	0.100	0.410	0.338	0.090	0.178	0.264			
SD	0.800	0.304	0.838	0.787	0.549	0.646	0.668	0.410		
TS	0.776	0.293	0.633	0.565	0.498	0.499	0.542	0.144	0.646	

Source: (Result of SEM-PLS data processing, 2022)

Notes: CS: consumer satisfaction; FCPS: Fear to COVID-19 Psychosocial factor; PD: Product delivery; PI product Information; PP: Product price; PQ: Product quality; RP: Repurchase Intention; SA: Safety; SD: Site Design; TS: Time saving

The value of the HT/MT ratio must be below 0.9 in order to confirm that the construct has discriminated indicators specifically to measure its own construct (Henseler et al., 2015). In table 4.15 it can be seen that all constructs have HT/MT ratio values below 0.9 when correlated with other constructs. Thus, it can be concluded that all construct indicators in this study have been discriminated against properly so that they can measure their respective constructs specifically.

Based on the results of the bootstrapping output below, it can be shown that the research model has one dependent variable, one mediating variable, and eight independent variables. In the inner model image below, the p-value of the nine paths in the research model can be seen. This value describes the significance of the relationship between variables with a p-value smaller than 0.05. A more detailed explanation regarding the inner model according to the stages and quality of the model suggested by Hair et al. (2019), as the equivalent of measuring goodness of fit can be described as table follows.

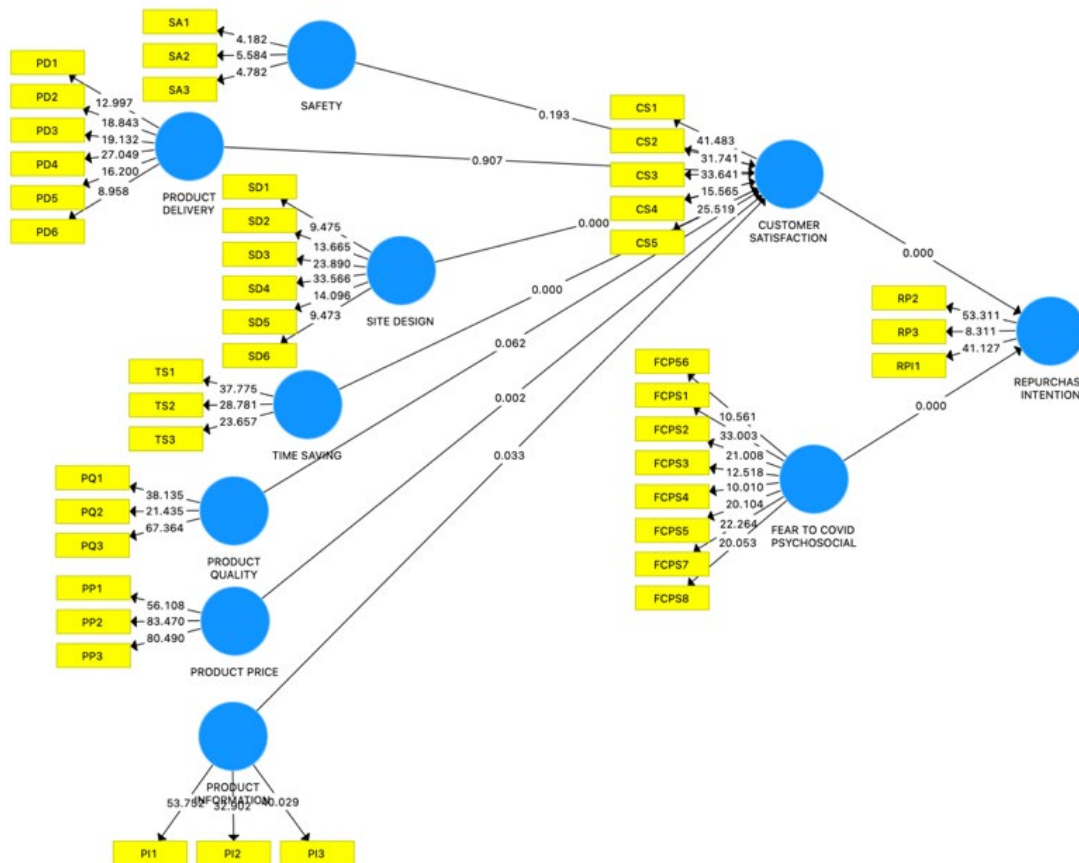


Figure 3. Result of structural model (inner model)  
Source: Result of SEM-PLS data processing, 2022

Table 4. Variance Inflation Factor (VIF) Value

	CS	FCP	PD	PI	PP	PQ	RP	SA	SD	TS
CS							1.100			
FCP							1.100			
PD	2.889									
PI	2.142									
PP	1.455									
PQ	2.066									
RP										
SA	1.142									
SD	2.539									

Source: Result of SEM-PLS data processing (2022)

In table above the Variance Inflation Factor (VIF) value of all research variables has met the recommended requirements, namely < 3, but the value of 3–5 can still be calculated and accepted, so that all variables in the research model have met the criteria and there are no multicollinearity problems.

Table 5. R Square Value

Variable Testing	R Square	R Square Adjusted
Customer Satisfaction	0.665	0.655
Repurchase Intention	0.528	0.524

Source: (Result of SEM-PLS data processing, 2022)

The results of the R-square test in the study can be seen in table 4.17 which can be seen that the consumer satisfaction variable has an R-square value of 0.665 (65.5%). The R-square value for consumer satisfaction shows that the model has moderate, which means that customer satisfaction can be explained by the variables of security, site design, product delivery, product quality, price, time, product information, amounting to 65.5% and the remaining 34.5% can be explained by other variables that do not exist in this study. In addition, the repurchase intention variable has an R-square value of 0.528 (52.8%) and it can be said that repurchase intention has moderate model strength. Repurchase intention can be explained by the repurchase intention variable of 52.8% and the remaining 47.2% can be explained by other variables that do not exist in this study.

**Table 6. Result of Hypotheses Testing**

	Hypotheses	Original Sampel	T-Statistic	P-Values	Significance	Result
H1	Safety is positively related to customer satisfaction	0.051	1.294	0.196	Not significant	Rejected
H2	Site Design is positively related to customer satisfaction	0.277	4.461	0.000	Significant	Accepted
H3	Product delivery has a positive effect on customer satisfaction	-0.008	0.114	0.909	Not significant	Rejected
H4	Product quality has a positive effect on customer satisfaction	0.126	1.605	0.057	Not significant	Rejected
H5	Product price has a positive effect on customer satisfaction	0.185	3.062	0.002	Significant	Accepted
H6	Time saving has a positive effect on customer satisfaction	0.329	4.899	0.000	Significant	Accepted
H7	Availability of product information has a positive effect on customer satisfaction	0.114	2.128	0.034	Significant	Accepted
H8	Customer satisfaction has a positive effect on repurchase intention	0.632	13.076	0.000	Significant	Accepted
H9	Social fear of COVID-19 is positively related to repurchase intention	0.216	4.435	0.000	Significant	Accepted

Source: Result of SEM-PLS data processing (2022)

## DISCUSSION

This study aims to provide input to managers and businesspeople engaged in e-commerce regarding the quality factors of e-service that affect customer satisfaction in online shopping for multivitamins and micronutrients during the COVID-19 pandemic and the mediating effect of customer satisfaction on repurchase intention. This study also succeeded in showing that the psychosocial emotional influence, namely the fear of COVID-19, affects customer behavior towards repurchase intention. This study has proven that site design (hypothesis 2), product price (hypothesis 5), time saving (hypothesis 6), and product information (hypothesis 7) have a positive effect on customer satisfaction. Other previous studies also support that site design, product prices, availability of product information, time savings have a significant effect on customer satisfaction (Laras & Putri Handoko, 2016; Lee et al., 2018; Rama & Barusman, 2019;

Rita et al., 2019; Vasic et al., 2019). Meanwhile, the factors of e-service quality, security, product delivery, and product quality did not significantly affect customer satisfaction during the COVID-19 pandemic in terms of online shopping for multivitamin and micronutrient products.

Common payment methods in Indonesian e-commerce, including Tokopedia and Shopee, are also much more popular than credit or debit cards, such as transfers, cash on delivery, virtual accounts, prepaid accounts, and so on. However, the choice of payment methods using debit cards in the form of transfers and cash on delivery in making online transaction payments is the most popular method, which is quite high among buyers, this is closely related to personal integrity payments. The security of consumer personal data is currently protected by the use of the one-time password (OTP) method of messaging via private cell phones (Eka Putri et al., 2019).

Hypothesis 3 in this study states that product delivery has no positive effect on customer satisfaction with a value of  $t = 0.195$ ;  $p\text{-value} = 0.846$ . In contrast to previous research which stated that delivery services have a major influence on online customer satisfaction (Vasic et al., 2019). Product delivery is an important factor in this study, it can be seen from the data on the questionnaire statement of respondents' answers which are positive, namely the mean value is categorized as "agree and strongly agree" but in inferential analysis there is no significant value to be generalized as a population. Meanwhile in Indonesia, where the delivery process information has been well regulated by the e-commerce platforms Tokopedia and Shopee, which allows the customer's online system to check the delivery status. Customers can very quickly and easily with just one click, find and buy products, and they can also check when the goods will arrive. Therefore, product delivery is no longer a big problem because customers already know when the product will arrive at home (Laras & Putri Handoko, 2016). On the Shopee and Tokopedia e-commerce platforms, there is a confirmation system if the goods have been received in accordance with consumer expectations.

Hypothesis 4 which states that product quality has no positive effect on customer satisfaction with a value of  $t = 1.937$ ;  $p\text{-value} = 0.053$  different from previous research which concluded that as a determinant of online shopping, product quality also has a positive effect on customer satisfaction. The results obtained from this study are not in accordance with previous research which states that product and service quality can affect customer satisfaction (Ali & Bhasin, 2019; Novialeta & Slamet, 2021). The product quality factor is certainly a very important thing in consumer satisfaction, as evidenced in this study the average respondent answered agree on the statement of the questionnaire used in this study, but in inferential statistical analysis, the product quality factor was not proven to be significant, and the results of this study could not generalize to the population.

Many psychological factors that influence consumer behavior so far. During dramatic situations such as pandemics or natural disasters, changes in consumer behavior can occur (Liu et al., 2021). Epidemics such as the COVID-19 situation can cause negative emotions that affect individual health such as lack of control and instability which are directly related to stress levels in an emergency. Researchers have found that stress is the most influential factor in consumer behavior (Cannito et al., 2020). A study states that how uncertainty changes consumption patterns and decision making (Loxton et al., 2020). Thus, it can be assumed that product quality is not the main e-service quality factor for consumer satisfaction in this study. Availability of products with accurate product information is much more important in this kind of situation. On the Tokopedia platform, it provides free facilities if the quality of the goods received does not match consumer expectations, so that product quality is not an issue that consumers worry about.

Hypothesis 8 customer satisfaction is positively related to repurchase intention with a value of  $t = 13.449$ ;  $p\text{-value} = 0.000$ . This strengthens the results obtained from previous

research, namely consumers will grow a strong intention to repurchase if they perceive the expected value (utilization and hedonic) and get satisfaction with their previous purchases from the same seller (Ali & Bhasin, 2019; Bauer et al., 2006; Novioleta & Slamet, 2021; Rita et al., 2019).

Hypothesis 9 in this study states that social and psychological fear of COVID-19 has a positive relationship with repurchase intention for dietary supplements with a value of  $t = 2,050$ ;  $p$ -value = 0.041; value of  $t = 2.059$ ;  $p$ -value = 0.040 each. This supports previous research, namely fear of COVID-19 has a positive effect on purchase intention (Liu et al., 2021). During a pandemic, emotional feelings of fear of something encourage someone to take preventive actions that can change consumer behavior in considering buying an item that can help relieve emotions (Gu et al., 2021; Kim et al., 2022).

Previous studies have suggested disseminating information about the efficacy of certain dietary supplements (e.g., vitamins C and D) through advertising, health education, or other marketing approaches to strengthen consumer trust and confidence in the benefits of these products (Subedi L, et al, 2021; Malaguamera R, 2020). These steps can encourage consumers to make better health decisions with advertising methods that focus on the benefits of products for consumers (Krishen AS & Bui M, 2015). In addition, a previous study has shown that emphasizing a high susceptibility to a disease and its severity is an important deterrent to the success of a fear-based product promotion strategy (Smerenonim CM, 2015). Previous research has demonstrated the significant positive impact of arousing fear of the physical condition associated with a product in promoting behavioral intention, such as showing warnings or illustrations on cigarette packages (e.g., aging skin and discolored lungs from smoking (Krishen). & Bui, 2015).

## **CONCLUSION**

The purpose of this study was to examine and analyze the positive influence of factors that influence consumer satisfaction in online shopping for multivitamins and micronutrients during the COVID-19 pandemic, which can be described as safety factors, site design, product delivery, price, product quality, time, and product information on consumer satisfaction mediating repurchase intention.

The model in this study has been empirically tested using 235 respondent data. Respondent data was obtained from a questionnaire distributed online with the criteria that the respondent can fill in the respondent if the respondent has made an online transaction to purchase multivitamins or micronutrients during the COVID-19 pandemic. Data analysis using the SEM-PLS method with the help of Smart PLS software version 3.3. The results of the analysis of the outer model with SEM-PLS show that all indicators used in this study are reliable and valid to measure their respective constructs. Then proceed with the analysis of the inner model and conclusions are obtained to answer the 9 research questions as follows. The factors of e-service quality, security, product quality and delivery do not have a positive influence on consumer satisfaction, security is not a factor that plays a role in determining consumer satisfaction in respondents in this study, meanwhile, e-service quality factors for site design, product prices, time, product information has a positive influence on consumer satisfaction, the better the site design on an e-commerce platform, the higher consumer satisfaction. Consumer satisfaction has a positive influence on repurchase intention.

## **Managerial Implications**

Based on the analysis of the results of data processing and discussions that have been carried out, the managerial implications that can be recommended to the management of Tokopedia and Shopee, especially in the marketing division, are as follows.

**The first suggestion**, based on this research, is that the site design e-service quality factor has a positive influence on consumer satisfaction, so it is important for Shopee and Tokopedia management to pay attention to the site design that is displayed because the site design gives the first impression when browsing the website, whether the e-commerce platform provides site design with an attractive appearance, easy to use with features that facilitate the shopping process. However, there are several things that should be improved, namely the consumer complaint feature offered in the form of a live chat or call center at Shopee that often provides a response that is not fast enough, and for Tokopedia, filing a complaint is only an automatic feature for continuing complaints to the seller and responding to complaints takes a long time. The design of the Tokopedia site does not facilitate the sending of photos between sellers and buyers to confirm the products to be purchased, furthermore this platform does not have a feature to block or complaints from dishonest sellers or consumers and other things regarding stock management also often become consumer complaints, because the number of stocks not updating.

**The second suggestion** is that the management of the e-commerce platform must innovate continuously to create an integrated information system and continue to develop capable front-end and back-end server capabilities at any time to serve online transaction traffic conditions, the burden of which will increase as time goes on. the number of users so that applications used by users or consumers will be free from disturbances such as error notifications, applications that run slowly, transactions that are not connected, and so on.

**The third suggestion**, the quality factor of e-service, the prices of products offered by this platform, although they tend to be cheaper than conventional stores accompanied by attractive discount offers, but there are several things that should be improved, such as discounted products not being fully filled with products of poor quality or the system increasing price before discount by seller. Product prices are also influenced by various shipping costs, the free shipping program offered is a program that consumers often complain about because the use of the word "free shipping" makes consumers have expectations that match the term used, but in reality Shopee only offers subsidies for product shipping costs.

## **RESEARCH LIMITATION AND RECOMMENDATION**

The first limitation, this study has limitations that can be used as input and suggestions for further research. The analysis in this study only focuses on case studies on the e-commerce platforms Shopee and Tokopedia, so the results of this study cannot be widely applied and generalized to all e-commerce platforms in Indonesia. Therefore, it is recommended for further research to be able to test the model in this study on other platforms such as Blibli, Lazada, Zalora, Bukalapak, and other e-commerce platforms so that the results of research analysis can be generalized.

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