

# Online Consumer Review in Building Willingness to Buy for Consumers of Food Products in Marketplaces during the Covid-19 Pandemic

B. Widjajanta<sup>1,\*</sup>, Lisnawati Lisnawati<sup>2</sup>, Agus Rahayu<sup>3</sup>, Lili Adi Wibowo<sup>4</sup>

Cindy Maharani Hartono<sup>5</sup>

<sup>1</sup> Universitas Pendidikan Indonesia

<sup>2</sup> Universitas Pendidikan Indonesia

<sup>3</sup> Universitas Pendidikan Indonesia

<sup>4</sup> Universitas Pendidikan Indonesia

<sup>5</sup> Universitas Pendidikan Indonesia

\*Corresponding author. Email: [bambangwidjajanta@upi.edu](mailto:bambangwidjajanta@upi.edu)

## ABSTRACT

Online shopping is one of the alternatives that people do during the COVID-19 pandemic. Food and health equipment are products that are experiencing an increase in online transactions. Willingness to buy when consumers have confidence in the product, and when they want to shop online, consumers usually consider online consumer reviews and online consumer ratings available in the marketplace, which provide information about the product and recommendations from the consumer's perspective. That is, willingness to buy can be made through online consumer reviews and online consumer ratings. This study aims to obtain (1) an overview of online consumer reviews (2) online consumer ratings (3) a description of willingness to buy (4) the magnitude of the influence of online consumer reviews on willingness to buy (5) the magnitude of the influence of online consumer reviews on availability. Based on the objectives, this research is classified into descriptive and verification types. The sample in this study was 200 respondents who were collected using purposive sampling method. The analysis technique used is the Structure Equation Model (SEM). The results showed that the description of online consumer reviews was in the fairly good category, online consumer ratings were in the fairly good category, and availability was in the fairly good category.

**Keywords:** *Online Review, Online Rating, Willingness to Buy.*

## 1. INTRODUCTION

The outbreak of the coronavirus (Covid-19) has spread to more than 160 countries in the world, including Indonesia. Based on the latest data dated July 14, 2020, there have been 76,891 cases of COVID-19 in Indonesia. China officially reported the presence of the coronavirus to the World Health Organization (WHO). An appeal to prevent the chain of spreading this virus requires people to stay at home, and the Indonesian government's policy issued PP No. 21 of 2020 on December 31, 2019, concerning Large-Scale Social Restrictions to limit movement of people and goods that requires the public if there is no urgent need to stay at home.

The Ministry of Commerce appealed to the public to take advantage of online shopping to break the chain of the spread of Covid-19. It also implements the Large-

Scale Social Restriction (PSBB) policy, as stated by the Minister of Trade. Agus Supramantio stated that the implementation of Work from Home (WFH) during the Coronavirus (Covid-19) pandemic has an impact on increasing online shopping for several products, especially health products. This was revealed by the online trade industry association, the Indonesia E-Commerce Association (IdEA). One of them uses a marketplace, namely a system of selling, purchasing, and marketing products by utilizing online electronic media [1]. This causes changes in consumer behavior with an increase in sales of various products supporting activities and household needs on the marketplace platform [2].

Behavior is closely related to objects whose studies are directed at human problems. A good understanding of the consumer decision process in buying will have an impact on the formulation of a better marketing strategy

for the company (Saputra, in [3]), The concept of consumer behavior in marketing continuously has developed for decades. Consumer behavior is an action that is directly involved in getting, consuming, and spending a product or service (Nugroho J. Setiadi., in [3]).

Willingness to buy (WTB) is a consumer's desire to buy a product as a fulfillment of expectations for a product [4]. Consumers expect a lot from the product that they will buy through the packaging that is presented and the information available so that consumers have confidence in the product which then WTB appears [5]. A strong WTB can stimulate a movement including the act of buying a product. The intention to make a purchase is a form of satisfaction that studies why consumers buy a brand [6]. WTB of consumers on a product does not just happen but is influenced by many things, including subjective attitudes and norms [7].

Trust in the product is considered to have a positive effect on the WTB of the product as it fulfills expectations for a product because it is felt that the product has more value and produces a positive impact on WTB [4], [8], [9]. Trust is an important factor in stimulating WTB through the internet [10]. Several studies have also shown that customer perceived product value as an important factor influencing WTB and online service repurchase in the context of electronic/mobile commerce. WTB was first introduced by Chades W. Lamb, Jr. and Crawford in 1982 in the foreign product industry [11]. WTB is often researched by academics and business people, so there are many researchers about WTB [12] [13] [14].

In a survey conducted by Circlo, the increase in new marketplace users during this pandemic was around 12 million which has been running for almost 9 months, including 58% female users and 42% male users, then from 12 million new users, almost 40% have made online shopping a new habit (www.sirclo.com) The stay-at-home advice has led to an increase in demand for basic commodities. According to one Indonesian retailer, the average increase during social distancing is 50%. Online shopping services and home delivery have also become consumer demands. Table 1 shows an increase in marketplace sales during the pandemic, in which electricity purchases rose to 3%, food/beverage purchases rose to 8%, pulses/data packages rose to 14%, health rose to 20%, groceries rose to 51%. This shows that food products during this pandemic are the main interest of the Indonesian people with a fairly high increase, which is around 51% of sales before this pandemic.

**Table 1.** Increasing marketplace sales during pandemic.

No	Types of products	Enhancement
1	Electricity	3%
2	Food / Drink	8%
3	Credit/Data Packages	14%
4	Health	20%
5	Food product	51%

Marketplaces offer many potential advantages for businesses, the main advantages expressed by the extant marketplace literature are reduced costs, increased sales, increased productivity, reduced processing time, extended market reach, and increased customer loyalty [15]. Before Covid-19, the marketplace was just an option. While for now, it is very important for retail stores and manufacturers to sell products through the marketplace platform to be able to maintain their business. This will have a positive long-term impact because consumers will be more accustomed to shopping online [2]. Table 1 shows a marketplace that is often used during this pandemic with the highest number of users obtained by the shop is 85% usage.

Internet technology has become like a staple food for society in the era of the digital era. The internet changes the way people do business, socialize, share information, and even change behavior patterns and lives between individuals and groups [16]. The revolution in the economic field is marked by the development of internet-based businesses or buying and selling online. Technology and the internet have changed the way of marketing. In recent years, Nielsen Global Online has shown that online shopping consumer behavior in Indonesia is unique. People in developed countries tend to buy electronic goods or IT products online, but these goods are not selling well in Indonesia [17].

The internet has grown rapidly over the last decade and has changed consumer behavior in shopping patterns from conventional to digital markets as e-commerce. As internet usage has spread rapidly, consumers are shifting from passive consumers to active and informed consumers. Electronic media, such as online discussion forums, electronic bulletin board systems, and newsgroups, are important sources of information influence that facilitate the exchange of information among consumers. Web-based technology has created many opportunities for electronic word-of-mouth (eWOM) communication [18].

The development of social media in the world makes it easy for companies that have brands to be known by many people, one of which has been described previously is Twitter. Twitter is experiencing rapid growth every year. Twitter has become a marketing tool in business, a casual medium for communication, even a campaign tool in politics [19]. The right use of social media will attract consumers to buy products or use the services offered. Digital marketing in Indonesia is increasingly being used

as a way to promote sales. Business activities can be carried out with the help of social media [20].

Online shopping sites or e-commerce sites allow companies to offer customers a greater choice of products and higher efficiency than physical retail (Dedeke in [21]). The existence of the internet provides opportunities for individuals to use social media such as email, Twitter, and Facebook to communicate with others without having to meet face to face.

**Table 2.** Marketplace which is frequently used in pandemics.

No	Marketplace	Exercise
1	Shopee	85%
2	Tokopedia	66%
3	Lazada	49%
4	Bukalapak	41%
5	JD.id	27%
6	Blibli.com	27%

Competition in the marketplace is also increasing activities provide information about the company, the goods and services offered, take and place orders, receive payments, goods and services delivery, after-sales service or contact, suppliers identification, and purchase supplies non-sales services, inventory, communicating with internal and external parties, exchanging documents and designs with customers or suppliers, seeking information, advertising and recruitment activities, competing with each other to gain the trust of marketplace users [15].

One of the important factors that customers are interested in when deciding to buy a product or service is price. Consumers today are very sensitive to the price of a product. Price is the total value intended by consumers for the benefits obtained or used for products and services [1]. If the price set by the company is right and in accordance with the purchasing power of consumers, then the selection of a particular product will be imposed on the product. A product will be more easily accepted by consumers when the price of the product can be reached by consumers. Judging from the price factor, there are a lot of discounted online shops listed on their products, which is done to attract more consumers [22].

The competition includes all offers and substitute products offered by competitors, both actual and potential, that a consumer might consider (Kotler, 2012, in [23]). The advantage of the growth of e-commerce is that it has opened up business opportunities to establish an online startup company. 2016 was a profitable year for startup companies in Indonesia because the startup industry had a greater impact on society and began to attract global attention (Karimuddin, in [24]). If a company has a low value of customer-based brand equity, it will cause failure to achieve brand resonance, reduce consumer judgment, and feelings towards the

brand can even reduce company revenue (Keller, 2013, in [24])

Table 3 describes the price comparison of the cheapest food products from several online stores such as Shopee, Tokopedia, Lazada, BukaLapak Jd.id, blibli.com, and from several offline stores such as Alfamart, Indomaret, Yomart. With the total shopping of 20 food products purchased in offline stores and online stores, the total purchase in the online stores of Rp. 194,498 is cheaper than in the offline stores which are Rp. 213,940, in which 14 food products are cheaper at online stores and 6 food products are cheaper at offline stores.

The marketplace feature in Indonesia provides a place for consumers to share experiences, provide comments on products and feedback about the seller, and sellers can provide product descriptions as one strategy to give trust to consumers through online consumer reviews and online consumer ratings of products in the marketplace. This is to minimize the incidence of fraud and crime on the internet or cybercrime which also affects customer trust [25]. Reviews that are user-generated content are called online consumer reviews. Online consumer reviews (OCR) and online consumer ratings, as a type of electronic word-of-mouth (e-WOM), provide product information and recommendations from a consumer perspective requiring that consumers feel that the brand has the ability and willingness to continue to deliver what consumers want [26]; [27].

Consumers can see the truth through online consumer reviews in the consumer comments column after buying the product [28], and they can see the truth about the product through online consumer ratings [29]. Several studies have shown that online consumer reviews and online consumer ratings created from consumer trust in these products are still a problem for the emergence of consumer WTB [30]. The product will be obtained based on the level of service provided to consumers, which creates a good reputation with high-quality standards and exceeds other companies that sell similar products [31].

Every company must have the power and be reactive in paying attention to market needs in the context of a strategy in marketing competition and maintaining its products in market share to gain trust and brand loyalty from consumers.

The company cannot only attract new customers but the company must also be able to retain its customers and avoid switching intentions because many companies suffer losses due to losing customers. Loss of customers is a serious threat to the company and will affect the company's profits. Then, companies must keep their customers so that customers do not have the intention to switch [32].

Companies must provide marketing stimuli that can be controlled through product, price, place/location, and integrated promotion (marketing mix) to produce the desired response in the target market (Kotler & Armstrong, 2008, in [33]).

The purpose of this study was to obtain findings regarding the influence of online consumer reviews and online consumer ratings on willingness to buy on food product consumers in marketplaces during the Covid-19 pandemic.

## 2. METHODS

### 2.1. Object of Research

This research was conducted in less than one year, so the data collection technique used in this study was the cross-sectional method. The sampling technique used in this study was probability sampling with simple random sampling. The data sources used consist of primary data derived from respondents' responses to the dimensions of willingness to buy, online consumer ratings, and online consumer reviews on consumer food products in the marketplace, as well as secondary data from several kinds of literature. Data collection techniques used were questionnaire studies and field studies.

### 2.2. Population and Sample

The population in this study were Shopee, Tokopedia, Bukalapak, Lazada, and Blibli consumers totaling 341,243,200 people or accounts, and Beautynesia. id followers totaling 366,000 people on February 9, 2021. Samples were taken based on the minimum sample size reference for the SEM model that Kelloway revealed at least 200 respondents. The relationship between the number of variables and the minimum sample size in the SEM-PLS model, if using 3 variables, then the sample used is at least 200 respondents. Thus, the sample in this study amounted to 200 respondents.

## 3. RESULTS AND DISCUSSION

### 3.1. Data Normality

The distribution of data must be analyzed through a normality test to see if the assumption of normality is met so that the data can be further processed for modeling. If the data distribution can form a normal distribution, then the normality of the data is fulfilled.

The requirements for normally distributed data are stated by the criteria for the skewness critical ratio value (skew) that is generated, which must be less than ( $\leq$ ) 2.58, or in the range of  $\pm$  2.58. Reference [34] explained that the normality assumption must be met in a normal multivariate manner as a consequence of a large number of samples and the use of the ML estimation method,

provided that the multivariate critical ratio is below 2.58. The results of the data normality test are presented in Table 3.

**Table 3.** Data normality test results.

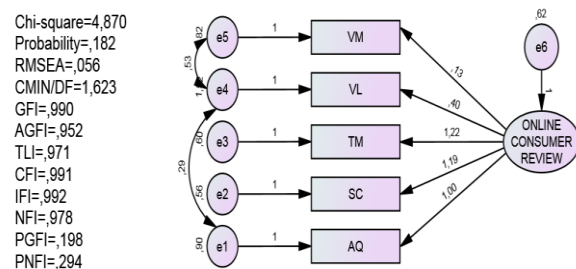
Variable	min	max	skew	c.r.	kurtosis	c.r.
PV	1,000	7,000	-,302	-1,742	-,535	-1,543
PRV	2,000	7,000	,012	,072	-,798	-2,303
PPQ	2,000	7,000	-,142	-,820	-,691	-1,993
PR	2,000	7,000	-,197	-1,138	-,535	-1,544
LK	2,000	7,000	-,121	-,700	-,889	-2,566
EX	1,000	7,000	-,212	-1,225	-,527	-1,521
CR	1,000	7,000	-,082	-,476	-,608	-1,756
VM	1,000	7,000	-,430	-2,484	-,076	-,219
VL	2,000	7,000	-,273	-1,578	-,762	-2,199
TM	2,000	7,000	-,016	-,090	-,402	-1,161
SC	2,000	7,000	,167	,961	-,623	-1,799
AQ	2,000	7,000	-,045	-,261	-,493	-1,422
Multivariate					6,491	2,504

Based on Table 3, the skewness critical ratio value of all indicators (univariate) shows a normal distribution because each value is between -2.58 to 2.58, or below 2.58. While the multivariate critical ratio value is 2.504, so it can be interpreted that the data of this are normally distributed.

### 3.2. Measurement Model Fit

#### 3.2.1. Construct Exogenous Online Consumer Review

Based on Figure 1, it can be seen that the exogenous construct measurement model as a whole can be said to be fit because it has a P-value = 0.182 > 0.05, CMIN/DF value = 1.623 < 2.00, RMSEA = 0.056 0.08, GFI=0.990  $\geq$  0.90, AGFI = 0.952 0.90, TLI = 0.971 0.90, CFI = 0.991 0.90, NFI = 0.978 0.90, IFI = 0.992 0.90, PNFI value = 0.294 (quite high), and PGFI value < GFI.



Information:

AQ = Argument Quality Dimension; SC = Source Credibility Dimension; TM = Timeless Dimension; VL = Dimension of Valence; VM = Volume Dimension; e = Error (Error)

**Figure 1.** Construction measurement model exogenous Online Consumer Review

The items or indicators of a latent construct must converge or share a high proportion of variance which is called convergent validity [34]. The measurement of the validity of the construct can be seen from the value of the loading factor. In cases where there is high construct validity, a high loading value on a factor (latent construct) indicates that the indicators converge at one point. One of the conditions that must be met is that the loading factor must be significant. Testing the validity and reliability of the exogenous model is presented in Table 4.

**Table 4.** Validity and reliability of measurement models of exogen construction Online Consumer Review.

	Estimate		S. E.	C.R.	P	Construct Reliability ( $\geq 0.70$ )	Average Variance Extract ( $\geq 0.50$ )
	RW	SRW					
AQ<---OCR	1	0,641				0,95	0,81
SC<---OCR	1,194	0,783	0,156	7,647	***		
TM<---OCR	1,221	0,78	0,159	7,655	***		
VL<---OCR	1,396	0,246	0,123	3,22	,001		
VM<---OCR	1,134	0,078	0,136	0,983	,325		

Reference [34] explained that several researchers used the criterion of convergent validity or standardized loading estimate 0.70 which is considered to have good validity for established research, while the loading factor value of 0.50 – 0.60 is still acceptable for initial research. Malhotra (2015) suggested that the loading factor value should be greater than 0.50 for the standard on the indicator. A high indicator loading factor value indicates that the indicators are clustered on the same variable and the indicator is valid and can form a variable.

Based on Table 4, it is known that all standardized loading factor values (SRW) for each indicator are more than 0.5 so it can be said that all indicators have good validity to measure the Online Consumer Review (OCR) variable.

The reliability of the model was measured by employing Construct Reliability (CR) and the average value of Variance Extract (AVE) where [34] stated that a construct has good reliability if the AVE value is 0.50, and the CR is 0.70, while reliability 0.60 – 0.70 is still acceptable on the condition that the validity of the indicators in the model is good. The construct reliability (CR) values and the average variance extract (AVE) listed in Table are obtained from the following calculations:

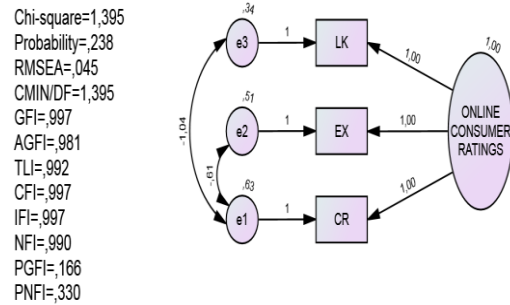
$$CR = \frac{(2,528)^2}{(2,528)^2 + 0,574} = \frac{6,391}{6,965} = 0,92 \quad (1)$$

$$AVE = \frac{2,528}{2,258 + 0,574} = 0,81 \quad (2)$$

Based on the calculation above, it can be seen that the CR value = 0.95 0.70 and the AVE value = 0.81 0.50 so it can be said that the exogenous Online Consumer Review construct has good reliability.

### 3.2.2. Construct of Exogenous Online Consumer Rating

Based on Figure 2, it can be seen that the exogenous construct measurement model as a whole can be said to be fit because it has a P-value = 0.238 > 0.05, CMIN/DF value = 1.395 < 2.00, RMSEA = 0.045 0.08, GFI = 0.997 0.90, AGFI = 0.981 0.90, TLI = 0.992 0.90, CFI = 0.997 0.90, NFI = 0.990 0.90, IFI = 0.997 0.90, PNFI value = 0.330 (quite high), and PGFI value < GFI



CR = Credible; EX = Expert; LK = Likable; e = Error

**Figure 2.** Measurement Model of Exogen Online Consumer Rating Construction.

Testing the validity and reliability of the exogenous model is presented in Table 5.

Based on Table 5, it is known that all standardized loading factor values (SRW) for each indicator are more than 0.5, so it can be said that all indicators have good validity in measuring the Online Consumer Rating variable.

**Table 5.** Validity and reliability of online consumer rating exogen construction measurement models.

	Estimate		S. E.	C.R.	P	Construct Reliability ( $\geq 0.70$ )	Average Variance Extract ( $\geq 0.50$ )
	RW	SRW					
CR<---OCR	0,085	0,784				0,97	0,94
EX<---OCR	1,000	0,815	0,106	4,259	***		
LK<---OCR	1,000	0,865	0,042	2,927	***		

The reliability of the model was measured using Construct Reliability (CR) and the average value of Variance Extract (AVE) where [34] stated that a construct has good reliability if the AVE value is 0.50, and the CR is 0.70 while reliability 0.60 – 0.70 is still acceptable on the condition that the validity of the indicators in the model is good. The construct reliability (CR) values and the average variance extract (AVE) contained in Table 6 are obtained from the following calculations:

$$CR = \frac{(2,464)^2}{(2,464)^2 + 0,148} = \frac{6,071}{6,219} = 0,97 \quad (1)$$

$$AVE = \frac{2,464}{2,464 + 0,148} = 0,94 \quad (2)$$

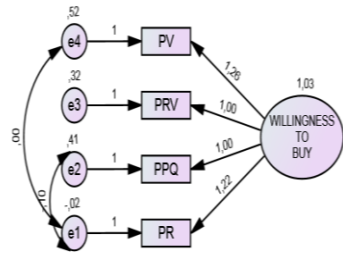


Based on the above calculation, it can be seen that the CR value = 0.97 0.70 and the AVE value = 0.94 0.50 so that it can be said that the exogenous Online Consumer Rating construct has good reliability.

3.2.3. Endogenous Willingness to Buy construct

In Figure 3, it can be seen that the overall endogenous construct measurement model can be said to be fit because it has a P-value = 0.568 > 0.05, CMIN/DF value = 0.325 < 2, RMSEA = 0.000 0 .08, GFI = 0.999 0.90, AGFI = 0.992 0.90, TLI = 1.005 0.90, CFI = 1.00 0.90, IFI = 1.001 > 0.9, NFI = 1.00 > 0.9, PNFI = 0.167 and PGFI < GFI.

Chi-square=.325  
Probability=.568  
RMSEA=.000  
CMIN/DF=.325  
GFI=.999  
AGFI=.992  
TLI=1.005  
CFI=1.000  
IFI=1.001  
NFI=1.000  
PGFI=.100  
PNFI=.167



PV = Perceived Value; PRV = Perceived Relative Price; PPQ = Perceived Product Quality; PR = Perceived Risk; e = Error

Figure 3. Measurement model of endogen Willingness to Buy.

The items or indicators of a latent construct must converge or share a high proportion of variance which is called convergent validity [34]. To measure the validity of the construct can be seen from the value of the loading factor. In cases where there is high construct validity, a high loading value on a factor (latent construct) indicates that the indicators converge at one point. One of the conditions that must be met is that the loading factor must be significant. Testing the validity and reliability of the exogenous model is presented in Table 6.

Table 6. Validity and reliability of Willingness to Buy endogen construction measurement models.

	Estimate		S.E.	C.R.	P	Construct Reliability (≥0.70)	Average Variance Extract (≥0.50)
	RW	SRW					
PR<---CE	1,000	1,005				0,98	0,95
PPQ<---CE	0,891	0,846	0,067	4,259	***		
PRV<---CE	0,716	0,873	0,057	2,927	***		
PV<---CE	0,866	0,866	0,051		***		

Based on Table 6, it is known that all standardized loading factor values (SRW) for each indicator are more than 0.5, so it can be said that all indicators have good validity in measuring the Willingness to Buy variable.

The reliability of the model was measured by employing Construct Reliability (CR) and the average value of Variance Extract (AVE) where [34] stated that a construct has good reliability if the AVE value is 0.50, and the CR is 0.70 while reliability 0.60 – 0.70 is still

acceptable on the condition that the validity of the indicators in the model is good. The values of construct reliability (CR) and average variance extract (AVE) are contained in Table 7.

3.2.4. Structural Model Fit

Evaluation or analysis of the structural model is related to testing the relationship between exogenous latent variables and endogenous latent variables, as well as testing the relationship between endogenous latent variables in accordance with the hypothesis that has been compiled in a study. Figure 4 shows an image of the standardized loading factor estimation parameter of the structural model after the goodness of fit test is carried out, which is presented as follows:

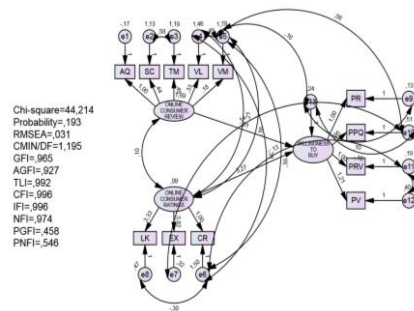


Figure 4. Structure of Online Consumer Review and Online Consumer Rating Models on Willingness to Buy

In Figure 4, it can be seen that the value of the parameter estimates of each variable as presented in Table 8. The results of the estimation of parameters of the online consumer review model and online consumer rating on willingness to buy are as follows:

Table 7. Results of Online Consumer Review and Online Consumer rating model estimation on Willingness to Buy.

Model	Estimate*		S.E	C.R	P	R <sup>2</sup>
	RW	SRW				
WTB<---OCR	0,007	0,080	0,035	0,197	***	0,064
WTB<---OCR	3,27	0,891	1,041	3,142	***	0,794
Average	1,6385	0,4855	1,6695	1,669		0,236

Table 7 shows that the test results for the estimated path coefficients in the model after trimming are all significant at an error rate of 5% or the P-value has a value <0.05.

3.2.5. Overall Model Fit

The overall fit test of the model is carried out to evaluate in general the degree of fit or goodness of fit. In the Goodness of fit test, the assessment criteria can be carried out according to the opinions of various experts. The goodness of fit test indicators and cut-off values are used in the suitability of this research model.

Table 8 The results of the Goodness of Fit Test provide information that the entire Goodness of Fit measure is in accordance with the recommendations and is greater than the cut-off value, so it can be said that the overall model is fit. Good results are shown by the three overall fit model criteria values, namely the RMSEA value of 0.031 0.08 (good fit), AGFI value of 0.927 0.90 (good fit), TLI value of 0.992 0.90 (good fit). So that this research model is declared feasible in a good fit to be used as a tool in confirming the theory that has been built based on existing observational data, in other words, the research model can be accepted.

**Table 8.** The Goodness of Fit Test Results

No	Goodness-of-Fit Measures	Cut-off value	Hasil	Evaluasi
<b>Absolute Fit Measures</b>				
1	Statistic Chi-square ( $X^2$ ) (df= 263)	$\chi^2_{hit} < \chi^2_{Tabel}$ (77,41858)	44,214	Good Fit
2	Goodness of Fit Index (GFI)	GFI $\geq$ 0.90 <i>good fit</i> , 0.80 $\leq$ GFI < 0.90 <i>marginal fit</i>	0,965	Good Fit
3	Root Mean Square Error of Approximation (RMSEA)	RMSEA < 0,05 <i>close fit</i> , 0,05 $\leq$ RMSEA < 0.08 <i>good fit</i>	0,031	Good Fit
<b>Incremental Fit Measures</b>				
1	Trucker-Lewis Index (TLI)	TLI $\geq$ 0.90 <i>good fit</i> 0.80 $\leq$ TLI < 0.90 <i>marginal fit</i>	0,992	Good Fit
2	Adjusted Goodness of Fit Indices (AGFI)	$\geq$ 0.90 <i>good fit</i>	0,927	Good Fit
3	Comparative Fit Index (CFI)	CFI $\geq$ 0.90 <i>good fit</i> 0.80 $\leq$ CFI < 0.90 <i>marginal fit</i>	0,996	Good Fit
<b>Parsimonious Fit Measures</b>				
1	Parsimonious Goodness of fit Index (PGFI)	PGFI < GFI	0,458	Good Fit
2	Parsimonious Normed Fit Index (PNFI)	The higher the better, compared to alternatives model	0,546	Good Fit

**3.2.6. Model Re-specification**

This stage is related to the re-specification of the model based on the results of the previous stage's suitability test. The implementation of the re-specification is highly dependent on the modeling strategy to be used. In the previous stage, the results of the model testing that were already in good fit were presented, so in this study, it is no longer necessary to have a further model re-specification stage.

**3.2.7. Hypothesis test**

Hypothesis testing is done by using an at-value with a significance level of 0.05 (5%) and a degree of freedom of n (sample). The t-value in the IBM SPSS AMOS

version 26.0 for Windows program is the Critical Ratio (C.R.) value (Siswono, 2012:316). If the value of Critical Ratio (C.R.) is 1.967 or probability value (P) is 0.05, then H0 is rejected (the research hypothesis is accepted). Table 9 presents the overall parameter estimation data as follows:

**Table 9.** Overall Model Parameter Estimation Results.

Model	Estimate*		S.E	C.R	P	R <sup>2</sup>
	RW	SRW				
AQ<---OCR	1,627	0,38	0,035	0,197	0,004	0,144
SC<---OCR	0,049	0,891	1,041	3,142	0,002	0,794
TM<---OCR	1,211	1,056				1,115
VL<---OCR	0,947	0,473	0,159	2,747	0,006	0,224
VM<---OCR	1,114	0,472	0,162	2,763	0,006	0,223
CR<---OCRT	1,059	0,336	0,133	2,485	0,013	0,113
EX<---OCRT	2,49	0,177	0,089	2,083	0,037	0,031
LK<---OCRT	2,445	0,236				0,056
PR<---OCRT	0,92	0,897	1,202	3,18	0,001	0,805
PPQ<---WTB	0,488	0,823	1,115	2,99	0,003	0,677
PRV<---WTB	1,482	0,887				0,787
PV<---WTB	1,173	0,878	0,064	14,848	***	0,771
Average	<b>1,250</b>	<b>0,626</b>	<b>0,444</b>	<b>3,826</b>		

The criteria for acceptance or rejection of the main hypothesis in this study can be written as follows:

Hypothesis:

H0 c.r 1.967 means that there is no influence of Online Consumer Review and Online Consumer Rating on Willingness to Buy

H1 c.r 1.967 means that there is an influence of Online Consumer Review and Online Consumer Rating on Willingness to Buy.

Based on Table 9, from the data processing of IBM SPSS AMOS version 26.0 for Windows, the CR value from the Online Consumer Review and Online Consumer Rating variables on Willingness to Buy was 3.826. 1.967 so that H0 is rejected, meaning that there is a positive influence of online consumer review and online consumer rating on willingness to buy. Based on the output probability value in Table 9, parameter estimation results of the online consumer review model and online consumer rating on willingness to buy overall shows a sign (\*\*\*), which means that the influence value obtained is at a significance level < 0.001, the value is P 0 0.05, thus supporting the statement H0 is rejected and the relationship is at a significant level.

Table 9 as a whole also shows the magnitude of the influence of online consumer reviews and online consumer ratings on willingness to buy which has a positive value of 1.250 as seen from the output of the unstandardized total effect, or equal to 0.626 when viewed from the standardized total effect output. Based on this value, it can be said that there is a positive and significant effect between online consumer review and

online consumer rating on willingness to buy of 1.250 or 0.626 one-unit value.

The magnitude of the coefficient of determination is shown by the value of the squared multiple correlations (R<sup>2</sup>), which shows the magnitude of the explanation of the Y variable by the X variable [34]. Based on Table 9, it can be seen that the R<sup>2</sup> value is 0.392 which means the willingness to buy variable which can be explained by the variability of online consumer review and online consumer rating of 39.2 %, while 60.8% are from other variables not examined.

In the data processing output of IBM SPSS AMOS version 26.0 for Windows, there are several matrix or estimation tables that show the relationship between the factors forming a latent variable and their relationship with the factors in other latent variables. Table 10 regarding the implied correlation of all variables shows the estimated value of correlation value of all variables contained in the research model (observed and unobserved) with standardized loading factor values that support the hypothesis that the research model in Table 10.

The values in Table 10 were obtained from the result of multiplying the standardized loading factor of the influence of online consumer review and online consumer rating on willingness to buy, multiplied by the value of the standardized loading factor of each dimension of the willingness to buy variable. This value can also be seen in the implied (for all variables) correlations matrix in the data processing output of IBM SPSS AMOS version 26.0 for Windows which is also listed in the appendix.

**Table 10.** Implied Correlation of All Variables.

	PV	PRV	PPQ	PR	LK	EX	CR	VM	VL	TM	SC	AQ
PV	1,000											
PRV	,767	1,000										
PPQ	,730	,738	1,000									
PR	,878	,881	,776	1,000								
LK	,626	,686	,632	,627	1,000							
EX	,710	,764	,806	,729	,742	1,000						
CR	,162	,279	,183	,180	-,011	,239	1,000					
VM	,412	,471	,475	,404	,313	,408	,343	1,000				
VL	,518	,576	,503	,539	,546	,537	-,055	,357	1,000			
TM	,167	,113	,133	,180	,099	,096	-,117	,026	,185	1,000		
SC	,192	,087	,111	,148	,122	,076	-,051	,039	,177	,613	1,000	
AQ	,285	,221	,183	,289	,275	,200	-,070	,157	,371	,498	,499	1,000

Based on Table 10, it can be seen that the influence value or loading factor of the online consumer review dimension that forms the largest willingness to buy is the valence dimension which is correlated with the perceived relative price dimension of willingness to buy of 0.576, while the online consumer variable dimension the biggest rating that forms willingness to buy is the expert dimension which is correlated with the perceived product quality dimension in willingness to buy of 0.806.

Table 10 also presents information that the loading factor value of the online consumer review dimension that forms the smallest willingness to buy is the source

credibility dimension which is correlated with the perceived product quality dimension in willingness to buy of 0.111, while the online consumer rating variable dimension is the credible dimension which is correlated with the perceived value dimension on the willingness to buy variable of 0.162.

#### 4. CONCLUSIONS

Online consumer reviews and online consumer ratings had a positive and significant influence on the willingness to buy of food products consumers in the marketplace. As it was proven by the t-statistic value with a value of 3.826 where the value was greater than 1.967 and significant in alpha (P-values < 0.005).

Online consumer reviews and online consumer ratings had a positive and significant influence on the willingness to buy of food products consumers in the marketplace. It can be seen that H<sub>0</sub> was rejected, which means that online consumer reviews and online consumer ratings had a significant influence on willingness to buy.

Online consumer reviews and online consumer ratings had a significant positive influence on the willingness to buy of food products consumers in the marketplace. This is proven by the value generated from the output of the unstandardized total effect of 1,250, or 0.626 when viewed from the output of the unstandardized total effect, it can be said that there was a significant positive influence of online consumer review and online consumer rating on willingness to buy.

The results of the study showed that online consumer reviews had a positive effect on willingness to buy, thus it is recommended for the marketplace to maintain consumer trust by paying attention to perceived risk, perceived product quality, perceived relative price, and perceived product value to maintain consumers trust to buy in the marketplace.

The results of the study revealed that online consumer ratings had a positive and significant effect on willingness to buy, thus it is recommended that marketplaces in Indonesia maintain consumer trust through credibility, expertise, and likability to build a high rating on the marketplace.

#### REFERENCES

- [1] P. Kotler and K. L. Keller, "Marketing Management, 15e édition," *New Jersey Pearson Educ.*, 2016.
- [2] P. C. Addo, F. Jiaming, N. B. Kulbo, and L. Liangqiang, "COVID-19: fear appeal favoring purchase behavior towards personal protective equipment," *Serv. Ind. J.*, 2020.
- [3] A. Aisyah, L. A. Wibowo, and B. Widjajanta, "Promotion Mix Solusi Untuk Meningkatkan



- Keputusan Pembelian,” *Strateg. J. Pendidik. Manaj. Bisnis*, 2019.
- [4] P. A. P. S. Kumara and K. Canhua, “Perceptions of country of origin: An approach to identifying expectations of foreign products,” *J. Brand Manag.*, 2010.
- [5] R. Rebollar, I. Lidón, A. Serrano, J. Martín, and M. J. Fernández, “Influence of chewing gum packaging design on consumer expectation and willingness to buy. An analysis of functional, sensory and experience attributes,” *Food Qual. Prefer.*, 2012.
- [6] B. Shahmoradi and S. Ghaimati, “Examine the Effects of Social Commerce on the Willingness of Customers to Buy,” *Int. J. Res. Bus. Stud. Manag.*, 2016.
- [7] F. Meskaran, Z. Ismail, and B. Shanmugam, “Online purchase intention: Effects of trust and security perception,” *Aust. J. Basic Appl. Sci.*, 2013.
- [8] Y. Koubaa, G. Ulvoas, and P. Chew, “The dual impact of traditional and national cultural values on expatriate ethnic groups’ attitudes and willingness to buy,” *Asia Pacific J. Mark. Logist.*, 2011.
- [9] J. Beneke, R. Flynn, T. Greig, and M. Mukaiwa, “The influence of perceived product quality, relative price and risk on customer value and willingness to buy: A study of private label merchandise,” *J. Prod. Brand Manag.*, 2013.
- [10] R. Chinomona, L. Okoumba, and D. Poee, “The impact of product quality on perceived value, trust and students’ intention to purchase electronic gadgets,” *Mediterr. J. Soc. Sci.*, 2013.
- [11] J. C. Crawford, “Effect Of Worldmwdedness Among Professional.,” pp. 859–862, 1982.
- [12] G. Guo and X. Zhou, “Consumer ethnocentrism on product judgment and willingness to buy: A meta-analysis,” *Soc. Behav. Pers.*, 2017.
- [13] A. Poushneh and A. Z. Vasquez-Parraga, “Discernible impact of augmented reality on retail customer’s experience, satisfaction and willingness to buy,” *J. Retail. Consum. Serv.*, 2017.
- [14] L. Roselli *et al.*, “Consumers’ willingness to buy innovative traditional food products: The case of extra-virgin olive oil extracted by ultrasound,” *Food Res. Int.*, 2018.
- [15] R. Rahayu and J. Day, “E-commerce adoption by SMEs in developing countries: evidence from Indonesia,” *Eurasian Bus. Rev.*, 2017.
- [16] A. Haekal and B. Widjajanta, “pengaruh kepercayaan dan persepsi risiko terhadap minat membeli secara online pada pengunjung website classifieds di Indonesia,” *J. Bus. Manag. Educ.*, 2016.
- [17] R. N. Muhammad, L. A. Wibowo, and L. Lisnawati, “Gambaran kualitas informasi ,shopping enjoyment dan keputusan pembelian pada followers Instagram Kamar Gadget,” *J. Bus. Manag. Educ.*, 2018.
- [18] R. Hurriyati, Lisnawati, and F. Rhamdani, “Online consumer reviews on using e-shopping service of e-commerce,” in *IOP Conference Series: Materials Science and Engineering*, 2017.
- [19] L. A. Wibowo, L. Lisnawati, and R. Adzimaturrahmah, “Social Media Customer Expectations: Brand Engagement in Maintaining Customer Loyalty,” *J. Pendidik. Bisnis dan Manaj.*, 2020.
- [20] A. Surachim, R. Hurriyati, L. Lisnawati, S. Sulastri, and H. Mulyadi, “Using social media to promote student entrepreneurship,” *Pertanika J. Soc. Sci. Humanit.*, 2018.
- [21] L. Lisnawati, R. Hurriyati, and A. W. Al Qorni, “Website Quality and Risk Perception as The Influence of Purchase Intention in E-Commerce Website in Indonesia,” *J. Pendidik. Manaj. Bisnis*, 2019.
- [22] S. Cardoso and L. F. Martinez, “Online payments strategy: how third-party internet seals of approval and payment provider reputation influence the Millennials’ online transactions,” *Electron. Commer. Res.*, 2019.
- [23] B. Widjajanta, A. Rahayu, and A. Salsabila, “Pengaruh Perceived Quality dan Brand Reputation terhadap Repurchase Intention pada Reviewers Sepatu Bata Aplikasi Shopee,” *J. Pendidik. Manaj. Bisnis*, 2020.
- [24] & W. Nurfitiriani, Widjajanta, “Gambaran brand experience dan customer-based brand equity pada situs wedding marketplace bride story di Indonesia. | Volume 3, Number 3, December 2018, page. 155-165.,” *J. Bus. Manag. Educ.*, no. 255–165, 20183.
- [25] H. Chen, “The influence of perceived value and trust on online buying intention,” *J. Comput.*, 2012.
- [26] C. S. Yang, C. P. Wei, and C. C. Yang, “Extracting customer knowledge from online consumer reviews: A collaborative-filtering-based opinion sentence identification approach,” in *ACM International Conference Proceeding Series*, 2009.
- [27] R. Lassoued and J. E. Hobbs, “Consumer confidence in credence attributes: The role of brand trust,” *Food Policy*, 2015.

- [28] B. Deng, P. Shao, and D. Zhao, "E-commerce reviews management system based on online customer reviews mining," in *CICC-ITOE 2010 - 2010 International Conference on Innovative Computing and Communication, 2010 Asia-Pacific Conference on Information Technology and Ocean Engineering*, 2010.
- [29] M. Rajarajeswari, "Customer ratings and reviews and their impact on the customers," vol. 21, no. 14, pp. 884–888, 2019.
- [30] J. Lee, D. H. Park, and I. Han, "The different effects of online consumer reviews on consumers' purchase intentions depending on trust in online shopping malls: An advertising perspective," *Internet Res.*, 2011.
- [31] J. W. Kang and Y. Namkung, "The information quality and source credibility matter in customers' evaluation toward food O2O commerce," *Int. J. Hosp. Manag.*, 2019.
- [32] S. Rahmalia, B. Widjajanta, and G. Razati, "The Effect Social Environment of the Switching Intention on Social Media Facebook," 2016.
- [33] P. D. Dirgantari, Y. M. Hidayat, and . Widjajanta, "Analysis of Purchasing Decisions as a Form of Consumer Brand Responses," 2020.
- [34] I. Ghozali, "Structural Equation Modeling Konsep dan Aplikasi dengan Program Amos 24," 2014. .