

## **EWOM CREDIBILITY, TRUST, PERCEIVED RISK, AND PURCHASE INTENTION IN THE CONTEXT OF E-COMMERCE: MODERATING ROLE OF ONLINE SHOPPING EXPERIENCE**

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### **ABSTRACT**

This study aimed to investigate the impact of eWOM credibility on trust and perceived risk and its effect on purchase intention with the online shopping experience as a moderator. The empirical data were collected from 247 e-commerce consumers in Indonesia through the distribution of online questionnaires. The PLS-SEM technique was applied to perform hypothesis testing. The results of this study showed that eWOM credibility has a positive and significant effect on consumer trust toward e-retailers and purchase intentions, but not on perceived risk. In addition, the results showed that consumer trust toward e-retailers has a positive and significant effect on purchase intention. Meanwhile, perceived risk has a negative and significant effect on purchase intention. Moreover, while online shopping experience positively moderated the relationship between perceived risk and purchase intention, online shopping experience did not moderate the relationship between consumer trust toward e-retailers and purchase intention. The findings of this study make a significant contribution both to business actors in e-commerce and to policymakers.

**JEL:** M31.

**Keywords:** *e-commerce, perceived eWOM credibility, trust toward e-retailers, perceived risk, online purchase behavior, online shopping experience.*

### **1. INTRODUCTION**

The coronavirus pandemic (Covid-19) today has caused many changes in aspects of human life, including consumer behavior patterns (Sheth, 2020). With the very high transmissibility of Covid-19, consumers are forced to create new shopping habits. Consumers who are initially accustomed to shopping directly must change this pattern by shopping online. One of the consequences of the change in habits is the increasing number of online shopping transactions in e-commerce which has occurred significantly since the outbreak of the Covid-19 pandemic (Bhatti, Akram, Basit, Khan, Mahwish, Naqvi & Bilal, 2020).

One of the countries that also had a significant impact was Indonesia. As one of the countries with the largest e-commerce users, wherein 2019, the reports recorded that 91% of internet users in Indonesia had purchased products online at e-retailers (Globalwebindex, 2020). In this regard, Indonesia has great potential for e-commerce to grow. In addition, e-commerce customer users in 2020 increased by 38.3% compared to 2019 (Tirto, 2020). Most recently, reports have shown that Indonesia has the most internet users, where 87.1% of internet users have made online purchases in e-commerce during the Covid-19 pandemic (Kemp, 2021). Meanwhile, Shopee was the e-commerce site with the most visitors, with an average monthly visit of 129.3 million in the fourth quarter of 2020. In the second, third, and fourth positions, Tokopedia, Bukalapak, and Lazada followed an average monthly visit of 114.62 million, 38.58 million, and 36.26 million, respectively (Katadata, 2021). Based on these reasons, the current study focused more on Shopee as the research object.

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Although the increasing transactions in e-commerce during the pandemic is a good signal for the development of e-commerce in Indonesia in the future, the purchase transaction process in e-commerce does not fully guarantee that consumers will be protected from fraud and things that harm consumers. In 2018, it was recorded that an average of 25% of Indonesian consumers experienced fraud by retailers in e-commerce (Experian, 2020). Furthermore, the Indonesian National Consumer Protection Agency (BPKN) reported a spike in public complaints related to e-commerce transactions. It was reported that there were only 18 complaints in 2019 but increased significantly to 70 cases of complaints in the first semester of 2020 (Cyberthreat, 2020). Based on these reasons, an effort to understand how consumers build trust toward e-retailers and overcome the high risks involved during purchasing transactions in e-commerce under the conditions described previously is very relevant. Furthermore, this effort can also be precious input from both a theoretical and practical point of view.

Trust and perceived risk are two essential things that cannot be separated in the online purchasing decision-making process (Xiao et al., 2019). Purchase transactions are considered a greater risk in e-commerce because consumers cannot predict with certainty that the results obtained will be perfect and in line with what consumers expect (Chiou, Hsiao & Chiu, 2018). Consumers will avoid the possibility of a loss by not making purchases at untrusted e-retailers because this is perceived as a big risk if consumers continue to make purchases (Zhao et al., 2019). One of the best ways that consumers can do to overcome this uncertainty is to consider eWOM from other consumers in the review section of e-commerce sites. eWOM is the communication medium most often used by consumers to determine which e-retailers can be trusted and which e-retailers cannot be trusted (Luo et al., 2019). Consumers who perceive that eWOM information in e-commerce is credible and can be trusted are more likely to have lower risk perceptions and more likely to trust e-retailers in e-commerce. Furthermore, the more credible eWOM is, the more confident consumers are to make purchase transactions (Mannan et al., 2019).

Regarding this, extensive research has been conducted on how consumer buying behavior is determined by trust toward e-retailers and risk perception (Farivar, Turel & Yuan, 2017; Pappas, 2016; Rahman & Soesilo, 2018; Zhu et al., 2020). Specifically, Irshad et al. (2020), Juniwati (2015), Hajli et al. (2017), Giampietri et al. (2018), and Konuk (2018) reported that trust has a positive and significant effect on consumer behavioral intentions. On the other hand, D'Alessandro, Girardi & Tiangsoongnern (2012), Lien et al. (2015), Aziz, Md Husin, Hussin & Afaq (2019), Carfora, Cavallo, Caso, del Giudice, de Devitiis, Viscecchia, Nardone & Cicia (2019), Zhu et al. (2020), and Watanabe et al. (2020) reported that there was no significant relationship between trust and consumer behavioral intentions. Furthermore, research conducted by Thakur s Srivastava (2015), Amaro & Duarte (2015), Sullivan & Kim (2018), Li et al. (2020), and Zhang et al. (2018) reported that perceived risk has a negative and significant relationship with consumer behavioral intentions.

On the other hand, Heikkilä et al. (2013), Suh et al. (2015), Chen, Tsai & Hsieh (2017), Benson, Ezingard & Hand (2019), Sembada & Koay (2021), and Al-Ansi, Olya & Han (2019) reported that there was no significant relationship between perceived risk and consumer behavioral intentions. Although there has been much literature investigating how the mechanisms of consumer trust and perceived risk drive purchasing behavior in e-commerce, these studies focus more of their attention on how the level of trust toward e-retailers and consumer risk perceptions drive purchasing behavior directly without considering the life experiences of consumers during

purchasing transactions, especially online purchases. Furthermore, there is still a lack of discussion regarding the other roles of the online shopping experience. Therefore, additional insight is needed regarding the mechanism of consumer behavior in e-commerce by considering the sequence of consumer shopping experiences in the past. Today's consumer buying behavior is highly dependent on the extent of the consumer's purchasing experience, especially in online purchase transactions that have high risk. Consumers with high online shopping experiences have adequate familiarity and knowledge about the e-commerce environment. In addition, there may be differences in the level of risk perception and trust in consumers with high and low online shopping experiences (Wu et al., 2018).

Therefore, this study is intended to fill these gaps by evaluating how eWOM credibility determines consumer trust toward e-retailers, the level of perception of risk, and consumer intentions to make purchases in e-commerce with the online shopping experience as a moderating in the Indonesian context. In this study, the Stimulus-Organism-Response (S-O-R) theory is used as the theoretical basis. The use of the S-O-R theory in this study is because this theory has been proven to explain consumer behavior. Specifically, the S-O-R theory is beneficial for explaining consumers' cognitive and affective responses to various characteristics in the environment and how the behavioral outcomes are generated (Chi, George, Huang & Wang, 2020).

This study contributes to several important aspects. This study provides a valuable guide for practitioners to understand how consumers maximize credible eWOM to strengthen trust toward e-retailers, minimize risk, and increase purchase intention. Also, this study can guide practitioners in comprehending how the online shopping experience generates different behaviors in the e-commerce environment. Finally, this research contributes to the literature, especially to the development of the S-O-R theory in the context of e-commerce.

## **2. LITERATURE REVIEW**

### **2.1. Stimulus-Organism-Response (S-O-R) Theory**

First introduced by Mehrabian & Russell (1974), the Stimulus-Organism-Response (S-O-R) theory is a theoretical model that was initially used in the field of environmental psychology (Chen & Yao, 2018). Today, the S-O-R theory is one of the theoretical models that has been widely applied to explain why and how a consumer behaves (Arora, Parida & Sahney, 2020; Laato et al., 2020; Lin et al., 2020; Zhu et al., 2020). From the point of view of the S-O-R theory, consumer behavior is a continuous process that begins when consumers receive a stimulus from the environment (S) that affects the consumer's cognitive and affective evaluations (O). Finally, it ultimately affects consumer responses (R) in the form of positive or negative behavior (Bigne, Chatzipanagiotou & Ruiz, 2020).

The first component in S-O-R theory, namely "stimulus", is everything that comes from the external environment that triggers the internal evaluation of consumers (Kamboj et al., 2018). In the context of online buying behavior, one of the characteristics of the external environment that can act as a stimulus in influencing the internal state of consumers is the quality of information (Islam & Rahman, 2017). The second component, namely "organism", is a cognitive and affective state of consumers, which is a reflection of consumer perceptions that are formed based on consumers' internal evaluations (Pal et al., 2020). Furthermore, the organism in question can be in the form of trust and perceived risk formed from the consumer's internal evaluation of the external

environment (Friedrich et al., 2019; Xue et al., 2020). The third component, namely "response", is a behavioral outcome that arises as a result of the end of the two initial processes ("stimulus" and "organism") (Islam & Rahman, 2017). At the response stage, one of the behavioral outcomes is the consumers' behavioral intention (Li et al., 2020). Following the logic of the S-O-R theory, this study uses eWOM credibility as a stimulus variable (S), trust and perceived risk as an organism variable (O), and finally, purchase intention as a response variable (R).

## **2.2. eWOM Credibility**

eWOM credibility is defined as how the available eWOM information is perceived by consumers as credible, trustworthy, and has explanatory power (Daowd, Hasan, Eldabi, Rafi-ul-Shan, Cao & Kasemsarn, 2021). eWOM credibility can also be interpreted as consumers' opinion that the results of reviews, recommendations, and statements on the e-retailers site are trustworthy, factual, and accurate according to actual conditions (Mannan et al., 2019). eWOM credibility describes how far consumers trust the messages conveyed by other consumers regarding products or services and e-retailers in e-commerce. Whether or not consumers are sure about what is claimed by eWOM in e-commerce is very dependent on consumer perceptions of the credibility of eWOM (Wu & Wang, 2011). In e-commerce, eWOM has become an essential indicator that consumers often use as a basis for making decisions. However, not all eWOM will be used by consumers. Consumers will filter all existing eWOM information and only use eWOM, which is considered credible as a basis for decision-making (Chakraborty & Bhat, 2018). The better consumers' perceptions of the credibility of eWOM, the more likely it is for consumers to adopt eWOM and vice versa (Filieri, Acikgoz, Ndou & Dwivedi, 2021).

## **2.3. Trust**

Trust refers to the level of consumer confidence that marketers do not do things that can harm consumers (Oghazi et al., 2018). Beldad, Hegner & Hoppen (2016) stated that trust is a consumer's belief that marketers will be able and willing to spend all their abilities to meet the best interests of consumers. Trust is crucial and is the basic foundation for consumers in transacting because of the high uncertainty and social complexity in making purchase transactions (Khare & Pandey, 2017). Furthermore, trust is crucial in e-commerce, especially in information asymmetry conditions where e-retailers have relatively more complete information about the quality and condition of the products traded compared to consumers. In addition, consumers also do not have sufficient information to ensure that e-retailers will not take opportunistic actions (Mainardes & Cardoso, 2019). Some evidence has shown that trust is a vital determinant in determining retailers' success both in the short and long term (Menidjel et al., 2021).

## **2.4. Perceived Risk**

Perceived risk can be defined as how far consumers perceive the possibility of unfavorable results that would be obtained by consumers when making purchases in e-commerce (Suh et al., 2015). Perceived risk can also be defined as consumer perceptions of the results obtained by consumers that are not following initial expectations, including the possibility of obtaining unfavorable results and the existence of losses in making online purchase transactions (Ariffin, Mohan & Goh, 2018). In online purchases, all transactions will depend on how consumers perceive the risks borne and the existing constraints, including the risk of security of consumer personal information, discrepancies between product information displayed by marketers and the actual condition of the product, as well as the delivery process of goods that are not following consumer

expectations (Liu et al., 2013). In some literature, perceived risk is considered a determinant of success in online purchase transactions (Thakur & Srivastava, 2015).

## **2.5. Online Shopping Experience**

The online shopping experience is a consumer perception formed as an implication of the accumulation of shopping experiences from the past to the present (Singh, 2019). The online shopping experience describes the frequency of purchases, and the accumulation of all events experienced by customers in the buying process activities that include before, during, and post-purchase (Izogo & Jayawardhena, 2018). The online shopping experience is a collection of all consumer online purchasing activities that occurred in the past. This accumulation ultimately shapes the individual's online shopping experience, makes individuals more familiar with the online environment, and better understand information about purchased products. Furthermore, the online shopping experience can also determine whether consumers will trust the e-retailers or not. The experience of positive and satisfying results in the past will be used as a basis by consumers to judge that the e-retailers can fulfill their commitments and be trusted (Vakulenko et al., 2019).

## **2.6. Purchase Intention**

Purchase intention is a subjective condition in consumers that allows the consumer's desire to purchase goods or services but has not yet entered the actual purchase stage (Li et al., 2020). Purchase intention is consumers' tendency to make purchase transactions at e-retailers (Rosillo-Díaz et al., 2020). Purchase intention describes interest, buying possibility, and consumer behavior in the future (Watson et al., 2020). In addition, a person's actions or behaviors are determined by the goals to be achieved so that the actions or behaviors shown are ways or stages to achieve these goals (Khan et al., 2021). Purchase intention is one of the critical factors in the marketing world because an increase in intention will reflect an increased opportunity to make an actual purchase (Gorji & Siامي, 2020). Furthermore, Chakraborty (2019) suggested that it is vital to understand consumers' purchase intentions because consumer actions are usually determined by their intentions. Therefore, by understanding consumer purchase intentions, the company can have an initial picture of developing the right strategy to attract consumers.

## **2.7. eWOM Credibility on Trust**

In online purchase transactions, purchasing behavior is often determined by eWOM credibility because consumers will seek credible information that can be used as a basis for making purchasing decisions (Sharma & Aggarwal, 2020). In addition, eWOM credibility is crucial in online purchase transactions because it will determine consumer attitudes towards products and e-retailers. eWOM with good credit is more trusted by consumers to be used as a basis for purchasing decisions (Dwidienawati, Tjahjana, Abdinagoro, Gandasari & Munawaroh, 2020). Furthermore, the quality of eWOM is a crucial factor that consumers always consider before making purchases in e-commerce. The quality of information from good eWOM will have a persuasive influence on prospective buyers and increase the trust of prospective buyers toward e-retailers to make purchases in e-commerce (Zhao et al., 2020). In line with this, Tien et al. (2019) reported that eWOM with good credibility would strengthen the confidence of prospective buyers that products sold by e-retailers in e-commerce have good quality and that the e-retailers can be trusted. This condition results in the more confident prospective buyers making a purchase. Based on these views, eWOM credibility may drive consumer trust toward e-retailers. With a credible eWOM, consumers can filter which e-retailers can be trusted and which e-retailers cannot be

trusted. Therefore, we suspect that the more credible eWOM is perceived by consumers, the higher the consumer's trust toward e-retailers.

H1: eWOM credibility is thought to have a positive and significant effect on trust.

## **2.8. eWOM Credibility on Perceived Risk**

Making online purchases carries several risks that can harm consumers at any time. These risks can arise due to high uncertainty and possible negative consequences when online purchasing (Rosillo-Díaz et al., 2020). According to Lee and Stoel (2014), perceived risk is usually present during the purchase transaction process. This feeling arises because there is no definite guarantee that the purchase transaction made by consumers is the right decision. Consumers can minimize risk when making online transactions by looking for credible information about the product to be purchased (Zhang & Hou, 2017). Consumers usually consider eWOM written by other consumers in e-commerce to be more credible than information through advertisements delivered by marketers. This assumption will be even stronger if the eWOM delivered by other consumers provides the same product information as what consumers are looking for (Chiou et al., 2018). Some evidence has shown that eWOM with good credibility would reduce consumer risk perceptions in online purchase transactions (Hussain et al., 2017). This evidence is understandable because a credible eWOM will provide a sense of security to consumers that consumers will be protected from all significant risks. Therefore, we suspect that consumers with high eWOM perceptions tend to have low-risk perceptions. In other words, a credible eWOM will reduce consumer perceptions of the risks that may be borne during the purchase transaction process.

H2: eWOM credibility is thought to have a negative and significant effect on perceived risk.

## **2.9. eWOM Credibility on Purchase Intention**

eWOM credibility is crucial in determining how many consumers will accept and adopt the information on a review site. Consumers will be more likely to use eWOM as a basis for evaluating if the eWOM is considered credible. Conversely, consumers will not pay attention to eWOM information if the information is considered not credible (Ismagilova et al., 2020). Furthermore, according to Yang et al. (2015), before making a purchase, consumers usually read the results of reviews from other consumers in e-commerce and then evaluate whether the eWOM is credible. The evaluation results will then direct whether consumers will use eWOM in making decisions or not, depending on how eWOM in e-commerce is perceived by consumers. Furthermore, a related study has reported that consumers' intention to make purchases is determined by eWOM credibility (Mannan et al., 2019; Zhang et al., 2014). In other words, the existence of a credible eWOM will further strengthen consumers' intentions to continue purchasing transactions with e-retailers. Therefore, we suspect that whether or not consumers' perceptions of the credibility of eWOM will determine the level of consumer purchase intentions. Specifically, the better the consumer's perception of the credibility of eWOM, the higher the consumer's intention to make a purchase.

H3: eWOM credibility is thought to have a positive and significant effect on purchase intention.

## **2.10. Trust on Purchase Intention**

In online purchase transactions, trust is crucial, especially in conditions where there is a lack of effective regulation. It is not easy to know whether e-retailers will fulfill their commitment

to protecting consumer information privacy and security in conducting transactions (Ponte et al., 2015). Furthermore, some literature suggests that trust between consumers and e-retailers is a must. A purchase transaction will never occur without trust between the two parties (Reynolds-McIltnay & Morrin, 2019). Consumers must trust that e-retailers will be ethical and not take opportunistic actions that harm consumers. E-retailers who are trusted are more likely to allow consumers to make purchases than e-retailers who are not trusted (Zhao et al., 2020; Zhu et al., 2020). In other words, consumers with high trust in e-retailers tend to have high purchase intentions. Therefore, we suspect that the level of consumers' intention to make a purchase will depend on whether or not consumers trust e-retailers. Specifically, the higher the trust, the higher the purchase intention.

H4: Trust is thought to have a positive and significant effect on purchase intention.

### **2.11. Perceived Risk on Purchase Intention**

The online purchase transaction process is riskier than traditional purchase transactions because consumers cannot perfectly guess the consequences that consumers will get, and sometimes the results obtained are very disappointing (Chiu, Wang, Fang & Huang, 2014). In addition, purchase transactions in e-commerce are riskier because products to be purchased cannot be evaluated directly, so consumers are more likely to speculate in making purchases (Pappas et al., 2014). Therefore, consumers will try to minimize the risks borne during purchasing transactions with e-retailers (Mortimer et al., 2020). Several previous studies have reported that consumer perceptions of risk determine purchase intention, where the higher the consumer's risk perception, the lower the consumer's likelihood of making purchases, and vice versa (Li et al., 2020; Pappas et al., 2014; Rahman & Soesilo, 2018). Based on some of the opinions and findings of previous research, it can be understood that consumer perceptions of the possible risks obtained will determine the level of consumer intention to make a purchase. Therefore, we suspect that consumers with low perceived risk have relatively high purchase intentions. In other words, the lower the consumer's perceived risk, the higher the purchase intention.

H5: Perceived risk is thought to have a negative and significant effect on purchase intention.

### **2.12. The Moderating Role of the Online Shopping Experience**

The online shopping experience is essential, especially in shaping consumer attitudes. Consumer experiences (good experiences and bad experiences) have provided knowledge to consumers regarding the good and bad consequences obtained during online purchase transactions (Dutt, Singh & Joshi, 2020). However, how the online shopping experience mechanism moderated consumer trust and risk perception in determining consumer intentions to make purchases in e-commerce is still relatively minimal. According to Li & Yuan (2018), the online shopping experience makes consumers assess situations and conditions better and comprehensively based on their past experiences. The consequence of this condition is that consumers can better filter out which e-retailers can be trusted and which e-retailers cannot be trusted in relation to purchasing decisions.

Furthermore, Pappas et al. (2014) reported that the online shopping experience plays an essential role in moderating the relationship between trust and satisfaction. Therefore, we suspect that the online shopping experience also has a vital role in determining the relationship between trust and purchase intention. The higher the consumer's online shopping experience, the stronger the relationship between trust and purchase intention.

H6a: The online shopping experience is thought to be able to moderate the relationship between trust and purchase intention.

The online shopping experience can work in several ways in relation to the purchasing decision-making process. First, the online shopping experience can minimize the perceived risk perceived by consumers and the uncertainty that exists in the online shopping environment. Second, the online shopping experience can make it easier for consumers to gain additional knowledge about the various alternatives available. Lastly, the online shopping experience involves a learning process so that consumers can adapt the evaluation process and purchasing decisions to the shopping environment (Campo & Breugelmans, 2015). In line with this, Wu et al. (2018) suggested that experienced consumers tend to have a much lower risk perception regarding online purchasing transactions than inexperienced consumers.

Furthermore, Broekhuizen & Huizingh (2009) reported an important role played by the online shopping experience in determining the relationship between perceived risk and online purchase intention. Specifically, there is a difference in the relationship between perceived risk and online purchase intention depending on the online shopping experience. Furthermore, it is reported that the relationship between perceived risk and purchase intention was more significant when consumers have a lot of online shopping experiences. With this logic, we suspect that the online shopping experience also plays an essential role in moderating the relationship between perceived risk and purchase intention. The higher the consumer's online shopping experience, the stronger the relationship between perceived risk and purchase intention.

H6b: The online shopping experience is thought to be able to moderate the relationship between perceived risk and purchase intention.

As a summary, Figure 1 summarizes the research hypotheses and conceptual framework used in this study.

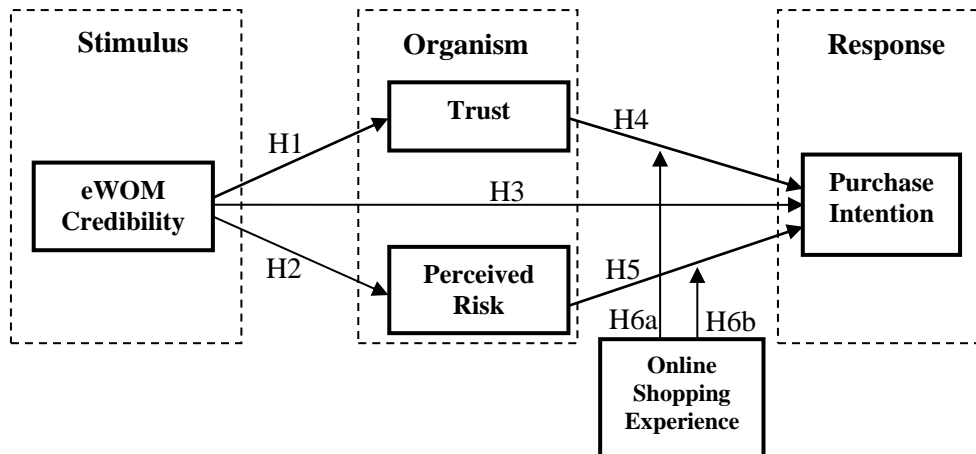


Figure 1. Conceptual Framework

### 3. RESEARCH METHODS

#### 3.1. Research Type, Population, Sample, and Procedure

This type of research is a causality study to investigate the relationship between variables using survey methods. The population used in this study is the users of one of the largest e-

commerce in Indonesia, namely Shopee. The determination of the number of samples in this study is based on the opinion of (Hair et al., 2019), where the minimum sample size for Partial Least Square Structural Equation Modeling (PLS-SEM) is the number of reflective indicators multiplied by 10. Since the number of reflective indicators in this study is 15, the minimum number of samples used is 150. This study used a 5-Likert scale (1 = "Strongly Disagree" to 5 = "Strongly Agree") as the measurement scale for each questionnaire item. The questionnaire was designed into two sections. The first section was intended to obtain the demographic data of respondents. The second section was designed to obtain respondents' responses about the variables studied. After the questionnaire was created, the questionnaire was then distributed online via Google Form and social media (WhatsApp, Facebook, Instagram) to Shopee users in Indonesia in October 2020 using a purposive sampling technique.

The respondent selection criteria used in this study were everyone who had made a purchase transaction at least three times in the past month. This criterion was chosen because consumers who have made three purchases in the past month have sufficient understanding and experience in assessing the e-commerce environment where consumers make purchase transactions. A total of 247 valid questionnaires were collected and analyzed using the Partial Least Square-Structural Equation Modeling (PLS-SEM) technique with the help of the SmartPLS version 3.0 application. The hypothesis testing in this study is based on the p-value and t-statistics, where a hypothesis can be accepted if the p-value is lower than 0.05 and the t-statistic is higher than 1.96 (Hair et al., 2019).

### **3.2. Constructs Operationalization and Measurement**

This study used one exogenous variable (eWOM credibility), three endogenous variables (trust, perceived risk, and purchase intention), and one moderating variable (online shopping experience). eWOM credibility refers to the results of reviews, recommendations, and statements on the e-retailers site that are trustworthy, factual, and accurate according to actual conditions (Mannan et al., 2019). Trust refers to consumer perceptions that e-retailers in e-commerce will be able and willing to spend all their abilities to meet the best interests of consumers (Beldad et al., 2016). Perceived risk refers to consumers' perceptions of the possibility of unfavorable results that would be obtained by consumers when making purchases in e-commerce (Suh et al., 2015). Purchase intention refers to consumers' tendency to make purchase transactions at e-retailers (Rosillo-Díaz et al., 2020). Finally, the online shopping experience refers to the collection of all consumer online purchasing activities that occurred in the past (Vakulenko et al., 2019).

Regarding the measurement of items, all measurement items for each variable used in this study were adapted from several previous studies, which consisted of 3 items for the trust variable (Ponte et al., 2015), three items for the perceived risk variable (Alcántara-Pilar, Blanco-Encomienda, Armenski & del Barrio-García, 2018), three items for the eWOM credibility variable (Mahapatra & Mishra, 2017; Mannan et al., 2019), three items for the online shopping experience variable (Lin & Lekhawipat, 2014), and three items for the purchase intention variable (Hong & Cha, 2013; Rosillo-Díaz et al., 2020). All measurement items used in this study are shown in Table 1.

**Table 1. Construct Operationalizations**

Items	Author(s)
<b>Trust (TR)</b>	
TR1: This e-commerce has integrity	(Ponte et al., 2015)
TR2: This e-commerce is reliable	
TR3: This e-commerce is trusted	
<b>Perceived Risk (PR)</b>	
PR1: There is a high risk of loss if I make an online purchase through this e-commerce.	(Alcántara-Pilar et al., 2018)
PR2: There is a major risk involved in making purchases via this e-commerce.	
PR3: Making a product purchase via this e-commerce is risky	
<b>eWOM Credibility (WOM)</b>	
WOM1: I believe online reviews on this e-commerce can be trusted	(Mahapatra & Mishra, 2017; Mannan et al., 2019)
WOM2: I believe online reviews on this e-commerce are an important and credible information	
WOM3: I believe online reviews on this e-commerce was written responsibly	
<b>Online Shopping Experience (Exp)</b>	
Exp1: I have shopped online extensively	(Lin & Lekhawipat, 2014)
Exp2: I have been using the internet for a long time to shop	
Exp3: I often shop online	
<b>Purchase Intention (PI)</b>	
PI1: I want to buy products from this e-commerce	(Hong & Cha, 2013; Rosillo-Díaz et al., 2020)
PI2: I want to buy a product on this e-commerce even though another e-commerce offers the same product.	
PI3: If there is a product that I want to buy, I want to buy in this e-commerce	

#### 4. RESULTS AND DISCUSSIONS

In this study, questionnaires were distributed to respondents who met the criteria through several social media (WhatsApp, Facebook, Instagram). Furthermore, Partial Least Square-Structural Equation Modeling (PLS-SEM) with the help of the SmartPLS version 3.0 application was then used to evaluate measurement models and structural models. According to Hair et al. (2012), Partial Least Square-Structural Equation Modeling (PLS-SEM) is an analytical tool developed as an alternative to Covariance Based-Structural Equation Modeling (CB-SEM), which emphasizes predictive power and is less demanding on sample size. In other words, PLS is here to cover the shortcomings of CB-SEM, which requires a large number of samples. As the results, Table 2 summarizes the demographic data of respondents who participated in this study.

In this study, the evaluation of the measurement model was carried out using three criteria, namely indicator reliability, convergent validity, and discriminant validity. First, the indicator reliability assessment is carried out by comparing the value of factor loadings, composite reliability, and Cronbach's alpha which must be greater than 0.7. Second, the convergent validity assessment is carried out by comparing the Average Variance Extracted (AVE) value which must be greater than 0.5. Finally, the discriminant validity assessment was carried out based on the heterotrait-monotrait ratio of correlations (HTMT) (Hair et al., 2019). As shown in Table 3, all latent variables used in the model have factor loadings, composite reliability, and Cronbach's alpha values greater than 0.7, indicating good internal consistency. In addition, it is also known that the AVE value for all latent variables in the model is greater than 0.5, which indicates a satisfactory

convergent validity. Finally, as shown in Table 4, it is known that all constructs have HTMT values lower than 0.85, which indicates good discriminant validity (Hair et al., 2019).

**Table 2. Demographic Data of Respondents**

Index	Frequency	Percentage (%)
<b>Gender</b>		
Male	97	39.3
Female	150	60.7
<b>Age (years)</b>		
15 to 25	111	44.9
26 to 35	100	40.5
36 to 45	29	11.7
46 to 55	7	2.8
<b>Education</b>		
High School	20	8.1
Bachelor Degree	158	64.0
Master Degree	65	26.3
Doctoral Degree	4	1.6
<b>Monthly Income (IDR)</b>		
<3.000.000	98	39.7
3.000.000 to 5.000.000	71	28.7
>5.000.000 to 10.000.000	45	18.2
>10.000.000	33	13.4

**Table 3. Results of the Measurement Model**

Items	Factor Loadings	AVE	Cronbach's Alpha	Composite Reliability
<b>Trust</b>				
TR1	0.857			
TR2	0.869	0.692	0.778	0.870
TR3	0.765			
<b>Perceived Risk</b>				
PR1	0.852			
PR2	0.929	0.786	0.864	0.917
PR3	0.877			
<b>eWOM Credibility</b>				
eWOM1	0.894			
eWOM2	0.817	0.754	0.840	0.902
eWOM3	0.891			
<b>Online Shopping Experience</b>				
Exp1	0.889			
Exp2	0.806	0.758	0.843	0.904
Exp3	0.914			
<b>Purchase Intention</b>				
PI1	0.829			
PI2	0.819	0.687	0.772	0.868
PI3	0.839			

**Table 4. Results of Discriminant Validity (HTMT)**

	1	2	3	4	5
(1) Experience					
(2) Perceived Risk	0.1625				
(3) Purchase Intention	0.2725	0.3832			
(4) Trust	0.1023	0.3715	0.7622		
(5) eWOM Credibility	0.1431	0.1173	0.5115	0.3902	

Table 5 shows the results of the structural model estimation of PLS-SEM with the help of the SmartPLS application. Evaluation of the structural model can be evaluated by assessing the value of the coefficient of determination ( $R^2$ ), the effect size ( $f^2$ ), predictive relevance ( $Q^2$ ), and the path coefficient of each research hypothesis (Hair et al., 2019). As shown in Figure 2, it is known that the  $R^2$  value for the trust variable is 0.111, which indicates weak predictive power. The perceived risk variable is 0.002, which indicates weak predictive power, and for the purchase intention variable is 0.497, which indicates moderate predictive power. Furthermore, as shown in Table 4, it is known that most of the  $f^2$  values are in a large category according to the standards (Hair et al., 2019). In addition, the results of the analysis also showed the  $Q^2$  value of 0.554, which indicates moderate predictive relevance according to the standards (Hair et al., 2019).

Finally, based on the results of hypothesis testing, as shown in Table 5, five of the seven hypotheses in this study were accepted. For direct effect, it is known that eWOM credibility has a positive and significant effect on trust ( $\beta = 0.333$ ,  $t = 5.486$ ), and purchase intention ( $\beta = 0.252$ ,  $t = 4.684$ ), but it has no effect on perceived risk ( $\beta = 0.039$ ,  $t = 0.595$ ) so H1 and H3 are accepted while H2 is rejected. In addition, it is also known that trust has a positive and significant effect on purchase intention ( $\beta = 0.411$ ,  $t = 7.150$ ), so H4 is accepted. On the other hand, it is known that perceived risk has a negative and significant effect on purchase intention ( $\beta = -0.236$ ,  $t = 4.555$ ), so H5 is also accepted. Finally, the results of hypothesis testing for the moderating role of the online shopping experience showed that the online shopping experience is only able to moderate the relationship between perceived risk and purchase intention ( $\beta = 0.122$ ,  $t = 2.096$ ) but not the relationship between trust and purchase intention ( $\beta = -0.005$ ,  $t = 0.915$ ), so H6a is accepted while H6b is rejected.

**Table 5. Hypothesis-Testing Results**

Hypothesis	Path Coefficients	P Values	Supported	$R^2$	$f^2$	$Q^2$
H1: eWOM Credibility -> Trust	0.333**	0.000	Yes	0.111	0.1248	0.554
H2: eWOM Credibility -> Perceived Risk	0.039	0.552	No	0.002	0.0016	
H3: eWOM Credibility -> Purchase Intention	0.252**	0.000	Yes		0.1056	
H4: Trust -> Purchase Intention	0.411**	0.000	Yes		0.2606	
H5: Perceived Risk -> Purchase Intention	-0.236**	0.000	Yes	0.497	0.0944	
H6a: Moderating Effect 1 -> Purchase Intention	-0.005	0.915	No		0.0001	
H6b: Moderating Effect 2 -> Purchase Intention	0.122*	0.036	Yes		0.0258	

Note: \*\* significant at  $p < 0.01$ ; \* significant at  $p < 0.05$

This study is intended to evaluate how eWOM credibility determines consumer trust toward e-retailers, consumer perceptions of risk, and consumer intentions to make purchases in e-commerce with the online shopping experiences as a moderator. The discussion of research results can be explained as follows:

For the first hypothesis (H1), the analysis results have shown that eWOM credibility is a determinant that can increase consumer trust toward e-retailers. This finding is in line with the research conducted by Tien et al. (2019) and Zhao et al. (2020). Furthermore, this finding indicates that consumers with the perception that eWOM in e-commerce is credible and trustworthy are more likely to trust the e-retailers. Consumers will seek adequate information, both about products and e-retailers, before making a purchase. Although the availability of information in e-commerce is very abundant, not all of this information is adopted by consumers as a basis for decision-making. In other words, only credible information will be adopted by consumers to strengthen consumer trust. Sharma & Aggarwal (2020) stated that the credibility of eWOM is a crucial factor

in online purchase transactions that are prone to fraud. In this condition, consumers often use eWOM information as an indicator to build trust in e-retailers. The better the credibility of eWOM available will make it more likely for consumers to conclude that the e-retailers can be trusted.

For the second hypothesis (H2), the analysis results have shown that eWOM credibility is not a determinant of perceived risk. This finding is not in line with the research conducted by Hussain et al. (2017). This finding indicates that even though consumers perceive that eWOM in e-commerce is credible and trustworthy, this cannot reduce consumer perceptions of the amount of risk faced by consumers during online purchase transactions. This is probably caused by the fact that online purchase transactions, especially in e-commerce, do not only involve consumers with e-retailers but also other parties involved (the delivery service). Therefore, even though consumers have a good perception of the credibility of eWOM in e-commerce, this is not worth consumers bearing the risk because they have to deal with two parties, namely e-retailers and delivery services.

For the third hypothesis (H3), the analysis results have shown that eWOM credibility is a determinant of purchase intention. This finding is in line with the research conducted by Mannan et al. (2019) and Zhang et al. (2014). This finding indicates that an increase in eWOM credibility will be followed by an increase in purchase intention. Contrary, a decrease in eWOM credibility will be followed by a decrease in purchase intention. In addition, the finding in this study also indicates that a credible eWOM is a beneficial resource for consumers in the purchasing decision-making process. A credible eWOM will further strengthen consumers' intention to make a purchase. This is in line with the arguments put forward by Yang et al. (2015), where one of the stages in the purchasing decision-making process is information seeking, one of which is eWOM from other consumers. However, only eWOM that is considered credible will be adopted by consumers as a basis for decision-making. With this logic, the level of consumer's intention to make a purchase will depend on whether or not the consumer's perception of the credibility of the available eWOM is good.

For the fourth hypothesis (H4), the results have shown that consumer trust determines purchase intention. This finding is in line with the research conducted by Zhao et al. (2020) and Zhu et al. (2020). This finding indicates that an increase in consumer trust will be followed by an increase in purchase intention. Conversely, a decrease in trust will be followed by a decrease in purchase intention. Furthermore, this finding also indicates that consumers will be more likely to have the intention to make purchases in e-commerce if consumers believe that e-retailers will not take opportunistic actions that can harm consumers. Conversely, consumers will be very careful and even cancel a purchase transaction if consumers do not believe that the e-retailers will uphold their commitment not to cheat. In conjunction with the findings in this study, Reynolds-McIltnay and Morrin (2019) suggested that trust is a central aspect of online purchase transactions. The success or failure of a purchase transaction is primarily determined by consumer confidence in e-retailers, and only then will the purchase transaction be successful. Therefore, consumers with a high level of trust in e-retailers tend to have high purchase intentions.

For the fifth hypothesis (H5), the results have shown that perceived risk determines purchase intention. This finding is in line with research by Li et al. (2020), Pappas et al. (2014), and Rahman & Soesilo (2018). This finding indicates that an increase in perceived risk will be followed by a decrease in purchase intention. On the other hand, a decrease in perceived risk will be followed by an increase in purchase intention. This finding is in line with the opinion expressed

by Mortimer et al. (2020) that because online purchase transactions are riskier than traditional purchase transactions, consumers will automatically try to minimize any risks that may arise during the transaction process. In the extreme, consumers will cancel the purchase intention if the consumer feels there is a big risk to be borne. Conversely, if the consumer's perception of the risk that may be borne is low, then the consumer's intention to purchase will also be stronger.

For the sixth hypothesis, part a (H6a), the results have shown that the online shopping experience does not moderate the relationship between trust and purchase intention. This finding is not in line with the research conducted by Pappas et al. (2014). Furthermore, although online shopping experience has been associated with consumer trust in e-retailers during the purchase transaction process (Li & Yuan, 2018), the findings in this study indicate that the level of online shopping experience has no impact on changes in the relationship between trust and purchase intention. This is possible because although the online shopping experience plays an essential role in determining how consumers trust e-retailers during the online purchase transaction process (Vakulenko et al., 2019), this does not guarantee that consumers will avoid the possibility of bad things happening.

For the sixth hypothesis, part b (H6b), the results have shown that the online shopping experience positively moderates the relationship between perceived risk and purchase intention. This finding is in line with the research conducted by Broekhuizen & Huizingh (2009). The finding in this study indicates that an increase in the online shopping experience will be followed by a strengthening of the relationship between perceived risk and purchase intention. Furthermore, the finding indicates that consumers who are familiar with or already have a high online shopping experience generally have more outstanding expertise, which affects more efficient purchasing decision-making. In addition, individuals with high shopping experience have more knowledge based on their past experiences about the consequences that will be received when making a decision. This is supported by the opinion expressed by Wu et al. (2018) that consumers who have had a lot of online shopping experiences have relatively low-risk perceptions, so consumers' intention to make purchases will also increase.

## 5. CONCLUSION

Based on the results of the research and discussion that have been described previously, several research conclusions can be drawn. First, eWOM credibility is a critical factor that positively and significantly influences trust and purchase intention but not perceived risk. Second, trust and perceived risk are important factors that significantly influence purchase intention. Specifically, trust has a positive and significant effect on purchase intention. Meanwhile, perceived risk has a negative and significant impact on purchase intention. Lastly, the online shopping experience positively moderated the effect of perceived risk on purchase intention. On the other hand, the online shopping experience could not moderate the effect of trust on purchase intention.

Overall, the findings of this study have succeeded in answering the problems described in the introduction, where consumer behavior is not only driven by the level of consumer trust, and risk perception directly but also depends on the credibility of the information and the extent to which consumers' past shopping experiences have accumulated. Thus, this shopping experience shapes how consumers perceive all the risks in e-commerce before and during making a purchase decision. In addition, this study has also answered how the mechanism of consumer buying behavior in e-commerce through the point of view of the S-O-R theory. Specifically, consumers

will use all available resources in the e-commerce environment, one of which is a credible eWOM (S), as an evaluation basis to assess which e-retailers can be trusted or not and regarding the level of risk that may be borne (O), and in the end will shape the consumer's response which is reflected in the purchase intention (R).

Based on these conclusions, several suggestions can be considered for e-retailers and policymakers. First, the findings in this study indicate that the consumer's intention to make a purchase is determined by the extent to which consumers trust the e-retailers and how consumers perceive the risks involved. Therefore, it is recommended for e-retailers and policymakers to create a secure e-commerce environment by providing true and accurate information regarding the products traded and making appropriate regulations to ensure transaction security and protect consumer privacy data during purchasing transactions. Listing product information honestly, ensuring that there are no defects in the product sent to consumers, and providing mutually beneficial solutions for each complaint are ways that e-retailers can do to increase trust and minimize consumer risk perceptions. Furthermore, requiring every e-commerce continually to evaluate and upgrade the e-commerce security system within a certain period is one way that policymakers can prevent and minimize any risks, one of which is the risk of consumer data leakage. Second, the findings in this study have also shown that eWOM credibility is a determinant factor that can increase consumer trust toward e-retailers and consumer intentions to make purchases.

In online purchasing transactions, eWOM credibility becomes very relevant for consumers as a basis for making decisions. This finding can be followed up by e-retailers in e-commerce to design the right strategy, namely by providing special incentives in the form of price discounts as a post-purchase stimulus to consumers so that they are willing to post the results of product reviews (e.g., images and videos) they have purchased in e-commerce. In this way, e-WOM information is much more credible, and ultimately consumer confidence in e-retailers can also increase. Finally, given that the findings in this study have demonstrated the critical role of the online shopping experience in moderating the relationship between trust and purchase intention, e-commerce marketers are advised to formulate their strategies by adjusting to the level of consumers' online shopping experience. Things such as responding quickly to any consumer questions related to marketed products, improving product packaging as attractive as possible, and reducing goods delivery times are things that e-retailers can try to enhance consumers' online shopping experience. E-retailers in e-commerce also need to provide special offers, such as discounts for first-time customers, to stimulate consumers to make a first-time purchases. In addition to providing benefits for e-retailers by strengthening the customer base, this effort can also create consumers' online shopping experiences with e-retailers outlets so that consumer trust toward e-retailers can be built, and ultimately consumer purchase intention can also increase.

Finally, this study has several limitations that can be considered for future research. First, the data collection in this study was conducted in Indonesia, a developing country, so the results may obtain limited generalizations. In addition, the condition of Indonesia as a developing country is also suspected to be one of the reasons why some of the hypotheses in this study are not supported, and there is also the possibility of differences in perceived risk and level of trust toward e-retailers in the context of e-commerce in countries with different economic conditions. Future research is advised to carry out further exploration by comparing developed and developing countries to gain comprehensive insights related to consumer perceptions of eWOM credibility,

risk, and level of trust toward e-retailers in making purchases in e-commerce. Second, this study only uses the characteristics of a single respondent in the sense that this study does not consider the impact of differences in respondent characteristics. Future research will need to consider the impact of generational differences (e.g., generations X, Y, and Z). This is based on the cohort theory argument that consumers of different generations produce different behaviors (Rahulan et al., 2015).

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