

---

# Is Neutral Review Objectively Rated? The Influence Of E-Wom On Online Product Purchase With Social And Physical Risks

Resekiani Mas Bakar<sup>1</sup>, Soraya Yusuf Seknun<sup>2</sup>, Husnul Khotimah<sup>3</sup>, Lukman Nadjamuddin<sup>4</sup>

<sup>1,2,3,4</sup> Universitas Negeri Makassar, Faculty of Psychology, Makassar, 90222, Indonesia

E-mail: [resekiani\\_masbakar@unm.ac.id](mailto:resekiani_masbakar@unm.ac.id)

---

## Abstract

The COVID-19 pandemic is forcing consumers to change their buying behavior from conventional transactions to online purchases. Online purchases can make it easier for consumers to transact virtually, but it can raise consumer concerns about the risk of the product being purchased. The purpose of this study is to analyze the effect of the nature of e-WOM (positive vs neutral vs negative) on risk perceptions in online product purchases with different levels of risk. This research was conducted in 2 studies using the experimental research method between participant design. The total number of study participants was 114 people. Study 1 aimed to analyze the effect of the nature of e-WOM (positive versus neutral versus negative) on risk perceptions by using online shopping site manipulation. Study 2 aims to determine the role of e-WOM by using a more risky product. The results show that positive reviews reduce consumer concerns about the risk of buying, compared to negative reviews, but have no effect on neutral reviews. The interesting results of this study suggest that neutral reviews rated more negatively on products with physical risks. This study supports the social judgment theory in persuading consumers and categorizing different messages. The implication from the research is for companies to manage and pay attention to customer satisfaction to increase positive comments on the product purchasing experience.

**Keyword:** positive e-WOM, neutral e-WOM, perceived risk, social judgment theory, physical risk.

## INTRODUCTION

The new normal period of COVID-19 opens up opportunities with the current presence of e-commerce, which makes it easier and indulges consumers to purchase various kinds of products. The rapid growth of e-commerce in Indonesia has an impact on the increasing rate of online shopping activity. However, the phenomenon of buying products online actually raises concerns or doubts for consumers. The untouchable and intangible characteristics of the products create a perception of risk. Online shopping situations that do not allow consumers to directly see the products to be purchased and the nature of the e-WOM information that consumers receive can affect the level of risk perception. Masoud (2013) argues that shopping online often presents a risk because consumers are unable to feel the presence of the product they want to buy physically and there is no face-to-face interaction between marketers and consumers, making consumers develop low trust and question product quality and marketer credibility. Poor product quality, shipping errors, fraud, and damaged goods are some of the most common problems faced by consumers making purchases online. This raises doubts and uncertainties for consumers. The phenomenon of feeling uncertain and future consequences when buying certain products is called risk perception (Bauer, 2001).

Perceptions of online purchasing risk that arise can be in the form of financial, functional, physical, psychological, social, and time problems (Jacoby & Kaplan, 1972). Perceptions of high risk have a negative impact on consumer trust and intentions so that they can influence purchasing decisions and reduce interest in purchasing products (Eriza, 2017; Martinayanti & Setiawan, 2016) and weaken the interaction between marketers and consumers (Lowry, Vance, Moody, Beckman & Read, 2008). Schiffman and Kanuk (2018) suggest that the level of risk perception that consumers have can differ depending on the factors that influence it, including product, situation, experience, and word of mouth (WOM). WOM is one of the factors that influence risk perception. WOM is known as a term to describe reviews or opinions expressed by consumers on a product (Zhang, Li & Chen, 2012). In this digitalized era, the term e-WOM is widely used to describe reviews submitted via electronic media or internet platforms. E-WOM is a form of word of mouth that is

present electronically (Lee, Park and Han, 2008). E-WOM can be considered as an extrinsic factor that influences the consumer's decision making process in buying. Liang and Corkindale (2016) prove that the power of e-WOM in online services reduces consumers' risk perceptions.

Anderson (1998) suggests that e-WOM can be positive, neutral, or negative. Positive e-WOM statements refer to pleasant, clear, and new experiences, as well as recommendations to others. Neutral E-WOM refers to the exposure of information from both positive and negative aspects (Wang, Cunningham, & Eastin, 2015). Negative E-WOM are bad comments or reviews that contain unpleasant experiences, criticisms, and personal complaints about a product or service (Anderson, 1998). Lee's (2014) research results show that e-WOM is one of the ways that consumers reduce risk perceptions. Consumers are looking for as much information as possible about certain products to reduce the perceived risk (Guo, 2001). The information received through e-WOM helps consumers to carry out evaluations and assessments to reduce perceived risk (Lee, 2014). Perception of risk has been shown to be significantly influenced by e-WOM (Sozer, 2019). The nature of positive e-WOM and negative e-WOM has a significant effect on consumer risk perceptions. Negative e-WOM has a greater influence on consumers' risk perceptions than positive e-WOM.

In particular, research related to the effect of e-WOM on risk perception has been carried out in the experiment of Lee, Rodgers, and Kim (2009). However, this research only focuses on positive and negative e-WOM, even though e-WOM has many variations, especially neutral e-WOM. The limitations of this study provide an opportunity for researchers to examine the e-WOM variable and risk perception by using different variations (positive, neutral, and negative). This study wants to answer two questions: First, do the differences in the nature of e-WOM (positive, neutral, and negative) affect consumers' risk perceptions? Second, does neutral e-WOM play a role in reducing risk perceptions when consumers buy higher-risk products?

## **LITERATURE REVIEW**

### **RISK PERCEPTION**

Schiffman and Kanuk (2018) suggest that risk perception is a consumer's subjective assessment of the uncertainty that will be faced when unable to predict the consequences of purchasing decisions. Risk perception consists of several aspects, namely performance risk, physical risk, financial risk, social risk, psychological risk and time risk (Jacoby & Kaplan, 1972). Performance risk is the risk that the product obtained does not perform as expected. Physical risk is a bodily risk to yourself and others that can be caused by a product. Financial risk is the risk that a product is not worth its price. Social risk is the risk that a product can cause embarrassment because of the assessment of one's social environment. Psychological risk is the risk that poor product choices can hurt the consumer's ego. Time risk is the risk that the time spent looking for the product will be of no use if the product obtained is not as good as expected.

### **Electronic word of mouth (e-WOM)**

On the internet, e-WOM has the effect of reducing risk perceptions in online shopping (Chan & Ngai, 2011). E-WOM is the dynamic or process of exchanging information that continues between past, present, and potential new consumers regarding a product, service, or brand via the internet (Ismagilova, Dwivedi, Slade, & Williams, 2017). Looking for referrals or references through e-WOM is part of the information search stage in the online purchase decision process (Indiani, Rahyuda, Kerti Yasa & Sukaatmadja, 2015). The ability of e-WOM to reduce risk perceptions occurs because there is informational content that consumers need when making a purchase.

Sweeney, Soutar, and Mazzarol (2008) suggest that factors that influence the effectiveness of e-WOM include message characteristics in the form of word and volume usage, situational factors including involvement, complexity, and lack of information, as well as advice seeking (Hennig-Thurau, Gwinner, Walsh & Gremler, 2004) which is the desire of consumers to seek additional information or recommendations in order to get a specific picture of a product. The information contained in e-WOM has three characteristics: positive, negative, (Vázquez-Casielles, Suárez-Álvarez & del Río-Lanza, 2013), and neutral (Roy, Datta, & Mukherjee, 2018). Negative E-WOM refers to comments related to negative experiences that consumers feel after using a product. Positive E-WOM refers to comments related to positive experiences that are felt after using a product (Vázquez-Casielles et al., 2013). Meanwhile, neutral e-WOM is a combination of positive and negative comments or opinions regarding the details of a product (Tang, Fang & Wang, 2014). Indiani et al. (2015) stated that the presence of e-WOM, especially those that are positive, can reduce uncertainty and risk perceptions experienced by consumers to an acceptable level of risk. Consumers with a decreased risk

perception level are also followed by an increase in trust and purchase interest in a product. Searching for information through e-WOM is a consumer mechanism to reduce risk perceptions when purchasing a product.

The topic of risk perception has been extensively studied by previous researchers. The risk perception variable has been a predictor of buying intention (Pelaez, Chen, & Chen, 2017), buying behavior Li, Sha, Song, Yang, Zhao, Jiang & Zhang, 2020) and WOM (Lin & Fang, 2006). In practice, the phenomenon of consumers seeking information through reviews from other customers (WOM) is a factor that affects the high or low perceived risk experienced by buyers. Another thing that also affects this is that research in the field of consumers was previously still limited to two forms of review (WOM), namely positive and negative (Talwar, Talwar, Kaur, Islam, & Dhir, 2020; Stockman, Hoyer, & Veiga, 2019). In fact, consumer comments are not only in a positive or negative form, but may also be in neutral form. Neutral E-WOM is often considered ambiguous and inconsistent because it contains two pieces of information on opposite sides. However, neutral e-WOM appears more objective because it openly tells both positive and negative things about a product. This is an opportunity to understand more deeply about the role of the nature of WOM (positive, negative, and neutral) on risk perceptions. Specifically, the aim of this study is to analyze the effect of positive and neutral e-WOM on reducing risk perceptions in the context of purchasing cosmetic products and online purchasing of fashion products.

From the description above, the hypothesis proposed in this experimental research is:

H<sub>1</sub>: Consumers who read positive e-WOM will have the lowest decrease in consumer risk perception.

H<sub>2</sub>: Neutral E-WOM has a stronger effect on decreasing consumer risk perceptions on higher-risk product purchases.

## **METHOD**

Research studies 1 and 2 were conducted using an experimental method using the Between Participant Design. Study 1 aims to examine the differences in three forms of e-WOM, namely positive, neutral, and negative on risk perceptions on online shopping sites. Study 2 aims to examine the effect of neutral e-WOM on consumers' risk perceptions in the context of purchasing a higher-risk product.

### **Study 1**

#### **Experimental Variables and Design**

The research in study 1 was an experimental study with a Between Participant Design. In this study, the independent variable is e-WOM. E-WOM is electronic word of mouth or non-commercial communication by providing commentary reviews related to brands, products or services in electronic media. This results in three independent variables, namely positive, neutral, and negative e-WOM. The dependent variable is risk perception. The e-WOM manipulation is displayed in the form of an online shopping site for clothing products. Risk perception is the consumers' perceptions of the losses that will arise from purchasing a product. The controlled variable was gender, namely women and not yet working. Selection of women and non-employment status was controlled in this study to avoid bias that could affect risk perceptions.

#### **Participants**

The selection of participants was carried out according to the criteria and the placement was done randomly. Participant recruitment was done using google form. Participants who fit the criteria and expressed their willingness to participate in the experiment were then divided into three groups (positive, neutral, and negative e-WOM). The criteria for participants are (1) women who have shopped for fashion products online, and (2) have experienced unpleasant experiences shopping online. The number of participants involved in the experiment was 57 participants. The age of the participants was between 16-29 years (33 percent were 22 years old). The educational backgrounds varied, namely high school/vocational high school (46%), D3/D4 (7%) and Bachelor (38%).

#### **Procedure**

This research was conducted during the Covid-19 pandemic, so the experimental process was carried out online through the Zoom video call application. The experiments were carried out individually for about 30

minutes. At the beginning of the interaction, participants were asked to read the informed consent form and sign it, as evidence that they were willing to participate in the experiment voluntarily. The experimenters explain the objectives of the study to the participants and provide instructions during the experiment. Each participant was asked to open an online purchasing website which was the manipulation of this experiment. On the site screen, participants were asked to see an overview of clothing products and read reviews of these products. Participants who have read the product and e-WOM then fill in the risk perception scale. After filling in the scale, then the manipulation check sheet, participants go through the debriefing, and the experiment would be deemed over.

## **Material**

### **Experimental Stimulus: Differences in E-WOM properties (positive vs neutral vs negative) on risk perception.**

The e-WOM manipulation in this study is provided in the form of an online shopping website. The website content consisted of three parts, namely product images, product information, and comments or reviews from previous consumers. The experimental website can be accessed at <http://www.psychologyewomresearch.com>. On the main screen, the displays that can be seen are the numbers 1, 2, and 3. These numbers represent the experimental group: Button 1 represents the positive e-WOM, button 2 for the negative e-WOM, and button 3 for the neutral e-WOM.

The e-WOM content in study 1 was conducted based on the following criteria: (1) reviews that are not related to images, (2) reviews that contain effective sentences, (3) are not short reviews, and (4) are not reviews that are not related to the product (Zhang & Yang, 2019). This study used five reviews in each group, so that a total of 15 e-WOMs were manipulated in the 3 experimental groups. The reason for using the five reviews used in each experimental group is because in general consumers when surfing the internet will read about five to six reviews (Park & Lee, 2008).

### **Risk Perception Scale**

Measurement of consumer risk perception is carried out after the e-WOM video has been watched by participants. Responses ranged from 1 (strongly disagree) to 5 (strongly agree). The risk perception scale in this study was adapted from the Xu and Park scale (2014) in the context of online shopping consisting of four aspects, namely socio-psychological risk, product risk, transaction risk and economic risk. The reliability of the scale is  $\alpha = 0.83$ . The total scale items amounted to 17, where the thing that distinguishes them is the statement items in the context of online shopping. Example item: "I am worried that the clothing product purchased online does not fit".

### **Manipulation Check Sheet**

The manipulation check items in Study 2 were: "to what extent do you rate the reviews you have read?". Participants were asked to choose one of the answers from three alternatives, namely: (a) all positive reviews, (b) all negative reviews, (c) half of the reviews were positive and the other half were negative.

### **Pilot Study**

A pilot study was conducted to determine the appropriate experimental stimulus for this study. Researchers conducted 2 pilot studies to obtain positive, neutral and negative e-WOM manipulations on online shopping website pages. Pilot study 1 aimed to determine positive, neutral, and negative e-WOM content, while pilot study 2 aimed to test the appearance and instructions of online shopping websites. Pilot study 1 was conducted on a number of participants (N = 30). All participants were asked to read and identify 21 comments into 3 groups (positive, neutral, or negative).

Pilot study 2 involved 10 people in each group (positive, neutral, and negative e-WOM). A total of 30 participants participated in pilot study 2 by showing the display of instructions on an online shopping website that contained positive, neutral and negative e-WOM. Participants were asked to rate: (1) the clarity of the instructions, (2) the appearance of the website, and (3) the language used. Participant ratings moved from a score of 1 (very difficult to understand) to 5 (very easy to understand). The average response results showed that the instructions and website display are in the easy to understand category.

**Table 1.** Assessment of Displayed Instructions and Website

Group	Clarity of Instructions	Website Display	Language Used
Positive E-WOM	4.2	4.7	4.4
Neutral E-WOM	3.9	4.0	4.6
Negative E-WOM	4.2	4.5	4.4

## RESULTS

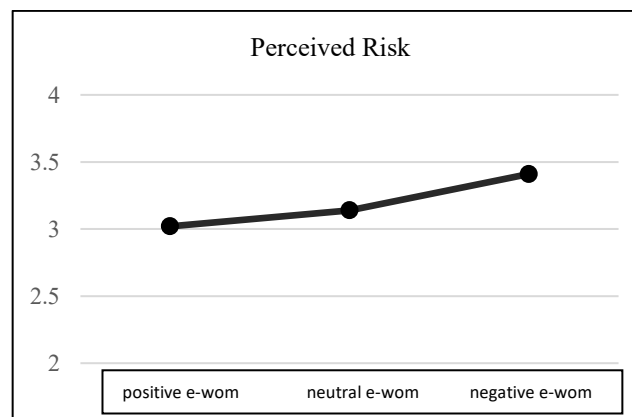
### STUDY 1

#### Manipulation Check

Before the hypothesis test analysis, a manipulation check was carried out so that the experiment results in valid data. Of the 66 participants who expressed their willingness to participate, 9 were eliminated because they did not comply with the predetermined conditions of manipulation. Thus, only 57 participants could be analyzed at a later stage. The placement of participants into each experimental group was carried out using the random.org application. Of the 57 people, each of them was divided into positive e-WOM groups ( $N_{positive} = 19$ ), neutral e-WOM ( $N_{neutral} = 21$ ), and negative e-WOM ( $N_{negative} = 17$ ).

#### Properties of e-WOM on Risk Perception

An ANOVA test proved that the 3 characteristics of e-WOM influence risk perception marginally significantly,  $F(2.56) = 3.02$ ,  $p = 0.057$ . The lowest average risk perception was in the positive e-WOM participant group ( $M_{positive\ e-WOM} = 3.02$ ,  $SD = 0.55$ ), compared to two other types of e-WOM, namely neutral e-WOM ( $M_{neutral\ e-WOM} = 3.14$ ,  $SD = 0.46$ ) and negative e-WOM ( $M_{negative\ e-WOM} = 3.41$ ,  $SD = 0.42$ ).

**Image 3.** Mean of Risk Perception towards Positive, Neutral and Negative E-WOM.

The Post-Hoc Test shows that: (1) there is a significant difference in the mean risk perception on positive and negative e-WOM, where  $t(56) = -0.39$ ,  $p = 0.01$ , 95% CI [-0.7, -0.06], (2) there is no difference in mean risk perception on positive and neutral e-WOM, where  $t(56) = -0.12$ ,  $p = 0.42$ , 95% CI [-0.43, 0.18], (3) there is no difference in mean risk perception on negative and neutral e-WOM, where  $t(56) = 0.26$ ,  $p = 0.097$ , 95% CI [-0.05, 0.58]. The Post-Hoc test showed that H1 was partially accepted.

**Table 2.** Post-Hoc Test

Post-Hoc Test	<i>p value</i>	Result
positive → negative e-WOM	0.01	Accepted
positive → neutral e-WOM	0.42	Rejected
negative → neutral e-WOM	0.09	Rejected

There are 4 aspects in measuring risk perception, namely socio-psychological risk, economic risk, product risk and transaction risk. The mean of consumer risk perception in each aspect: socio-psychological ( $M = 2.7$ ,

$SD = 0.5$ ), product ( $M = 3.6$ ,  $SD = 0.7$ ), transaction ( $M = 3.1$ ,  $SD = 0.6$ ), and economic ( $M = 3.4$ ,  $SD = 0.8$ ). The results of the average general assessment of participants in the three experimental groups show that the highest concern felt by consumers of online shopping lies in product risk.

## DISCUSSION OF STUDY 1

The results of study 1 show that some of the hypotheses are proven. The difference in risk perception in the three experimental groups was only significant in the positive versus negative e-WOM group. The mean of risk perception was not proven to be different in the positive vs neutral e-WOM group and the negative vs neutral e-WOM group. These results generally indicate that positive reviews or negative reviews have an influence on risk perception, compared to reviews that are partly positive and partly negative (neutral). The more positive the information was from previous consumers, the lower the level of risk perception of online products. On the other hand, the more negative the information obtained, the higher the risk perception that arises from online purchases.

Based on the responses of participants in the negative e-WOM group, 94% answered that they were worried that items purchased at online stores will not fit. Likewise, the response of negative e-WOM participants who all (100%) answered agree on the item: "I am worried if the clothing products displayed on the web are of poor quality". This reinforces findings that suggest that negative reviews raise concerns about poor quality and the same negative suspicion will happen to consumers.

Research by Liang and Corkindale (2018) proves that the nature of e-WOM received by consumers affects risk perceptions. Participants with positive reviews showed a lower risk perception than the negative group. Research conducted by Sozer (2019) shows that positive and negative reviews have a significant effect on risk perception. Negative reviews give a sense of uncertainty about the bad consequences that are likely to occur in the future. Conversely, positive reviews give rise to the impression that a previous consumer's pleasant experience will repeat itself to that individual.

The mean difference in risk perception did not show a difference between the positive and neutral e-WOM groups. The results of study 1 show that the mean positive and neutral e-WOM is not much different in reducing risk perceptions. This is in line with the study conducted by Wang et al. (2015) which states that positive and neutral reviews are not significantly different from one another. Neutral reviews are often perceived as a positive source and have a persuasive effect that is not much different from positive reviews (Sweeney et al., 2008). Information that is pro and con in neutral e-WOM can be an objective evaluation for consumers in choosing online products. Consumers can objectively evaluate two aspects, namely positive and negative. But on the other hand, neutral e-WOM may also contain inconsistent comments (Jeong & Koo, 2015). This also causes neutral e-WOM to not prove to be different from negative reviews. Neutral E-WOM is considered inconsistent, because a half of the neutral comments are also negative in nature.

## STUDY 2

Study 1 has proven that positive e-WOM is more effective in reducing consumers' risk perceptions by using video manipulation. However, positive e-WOM is no different from negative reviews, as neutral comments are rated as half positive and half negative. The next research question is whether neutral reviews on products with a higher risk level will be rated the same as positive reviews. Study 2 used product manipulation with a higher risk than study 1, namely facial cleansing cosmetics.

### Experimental Variables and Design

The independent variable is the nature of e-WOM, which is positive versus neutral, with perceived risk as the dependent variable. Study 2 was an experimental research using the Between Participants Design.

### Participant

Selection of participants was done using the criterias women aged 15-34 years and using facial cleansers. The recruitment process was carried out to obtain research participants. Participant recruitment is carried out by making announcements manually or online. Participants who expressed their willingness to participate voluntarily in this experiment were then randomly divided into two experimental groups. The determination of the experimental groups was done using the randomlist.com application. The total number of participants

who were involved voluntarily were 60 people. The criteria for participants who took part in this study were women who used facial cleansers and did not have income or have not worked. Participants were between 18-24 years old (36.8 percent were 19 years old). The latest educational background of the participants consisted of high school (94.7%) and undergraduate studies (5.3%). The average monthly expenditure of participants is <IDR 300,000.00 (14%), IDR 300,000.00 - IDR 500,000.00 (30%), IDR 500,000.00 - IDR 1,000,000.00 (35%), and more than IDR 1,000,000.00 (21%).

## **Procedure**

At their arrival, participants were directed to the laboratory waiting room to fill out an informed consent form. The experimenter then invited the participants to enter the experimental room. The experimenters provide explanations and instructions to the participants. Each participant was asked to watch a facial cleansing product video containing positive reviews or neutral reviews. After watching product videos and reading reviews, participants were asked to fill out a risk perception scale. After that, the experimenter gave each participant the manipulation check sheet and closed the session.

## **Material**

### **Experimental Stimulus: E-WOM video**

The experimental stimulus used in study 2 was in the form of a video. The video used is of a facial cleansing product. The facial cleanser brand in the video is fictional. The video stimulus contains the benefits and contents of facial cleansers as well as written reviews (e-WOM) from three consumers who have used them. The video is 135 seconds long (2 minutes 15 seconds) and consists of six scenes. The first to fifth scenes show the attributes and contents of the product. The last scene shows the e-WOM reviews. One example of a positive E-WOM review is *"This facial cleanser has a brightening effect and makes my skin look less dull. Moreover, because this product is double cleansing, it's not much of a bother to use. So for people who don't want to have a hard time can try this because it's less time-consuming"*.

### **Risk Perception Scale**

The risk perception variable is measured using a scale. Participants fill out the scale after reading buyers' comments. The scale used is the same as in study 1. Because the risk perception scale is different in context to study 1, the researchers chose items that match the video of facial cleansing products. There were 11 items used in study 1. Example of one of the risk perception scale items: "I am afraid the facial cleanser shown earlier is of poor quality".

### **Manipulation Check Sheet**

A manipulation check is given after the experimental stimulus and risk perception scale have been assigned. The manipulation check consists of only one item: *"the comments of some consumers featured in the video that you have watched, are..."* There are two answer options, namely: (a) positive reviews, (b) negative reviews.

## **Pilot Study**

Before the experimental research was carried out, the researcher conducted a pilot study. Researchers conducted two pilot studies first to determine (1) the positive and neutral reviews that would be used in the study, and (2) that instructions and video display that were easy for participants to understand.

Pilot study 1 aimed to determine the content of positive and neutral e-WOM reviews. Participants were asked to read 10 comments and identify whether the types of e-WOM comments were positive or neutral. The number of participants who took part in pilot study 1 was 15 people. The results of the pilot study showed that there were 3 positive and neutral reviews that were mostly identified by the participants.

Pilot study 2 aims to test participants' understanding of instructions and product video display. Pilot study 2 was conducted on 20 participants ( $N_{\text{positive e-WOM video}} = 10$  and  $N_{\text{neutral e-WOM video}} = 10$ ). Each group of participants watched the product video and was asked to rate: (1) understanding of the words used, (2) clarity of the writing used, (3) reliable reviews/comments, and (4) video presentation. The pilot study assessment moves from 1 to 5 with two distinct poles. Example of one item: *"information from submitted reviews"* (very untrustworthy -

very trustworthy). The results of the pilot study 2 overall indicate that the video to be shown is feasible to use in this experiment.

**Table 1.** Mean of Assessment of Participants in Pilot Study 2

Pilot Group	Study	Understanding of words used	Clarity of font used	Trustworthy reviews/comments	Video display
Positive E-WOM		4.2	4.2	3.3	3.5
Negative E-WOM		4.5	4.8	3.4	3.1

## STUDY 2 RESULTS

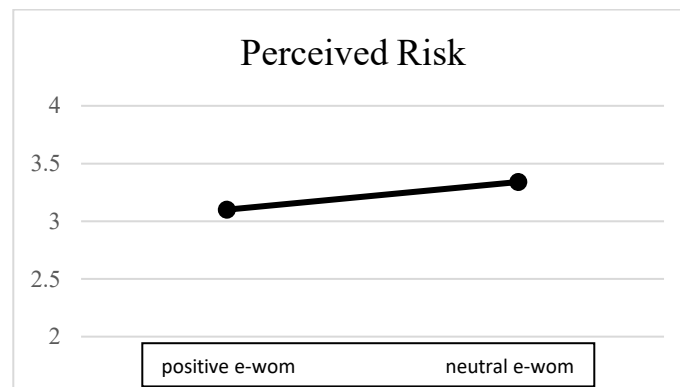
### Manipulation Check

The total number of participants involved was 60 people, but only 57 people could be analyzed. The data thrown away belonged to 3 people, because they were not in accordance with the manipulation check. Participants in this experiment numbered 57 people, consisting of 30 people in the positive e-WOM group and 27 people in the neutral e-WOM group.

### Positive versus Neutral E-WOM on the Perceived Risk of Cosmetic Products

The t-test results showed that positive and neutral e-WOM had a significant difference in effect on perceived risk, where  $t(55) = -2.171$ ,  $p < 0.05$ , 95% CI [-0.45, -0.02]. The mean of risk perception in positive e-WOM participants was lower ( $M_{positive\ e-WOM} = 3.10$ ,  $SD = 0.47$ ) than the mean in the neutral e-WOM group ( $M_{neutral\ e-WOM} = 3.34$ ,  $SD = 0.32$ ). The t-test supports the hypothesis in this study. Participants in positive e-WOM can reduce the perceived risk perceived by consumers when buying products, compared to neutral e-WOM. The average effect of e-WOM on risk perception can be seen in Figure 2.

**Image 2.** Mean of Risk Perception from Positive and Negative E-WOM



## DISCUSSION OF STUDY 2

Study 2 tested risk perception using positive and neutral comments. The results show that e-WOM affects differences in consumer risk perceptions in purchasing. Positive comments from other people can reduce consumers' perceptions of risk in comparison to neutral reviews. This result is interesting because it differs from the experimental study 1 which shows that positive and neutral reviews are rated almost the same by consumers. Experimental manipulation in study 1 that uses online clothes purchase products is assessed differently from cosmetic products in study 2.

Based on participant data on a risk perception scale, participants on a neutral e-WOM answered agree (44%) that they feel worried that the product does not match the consumer's self-image, compared to participants on positive e-WOM, where only 28 percent answered as such. Likewise, the response of participants' answers to neutral reviews was 45.6 percent who expressed their concern that the product to be purchased was not suitable, compared to participants on positive comments. The response of this answer illustrates that positive reviews from others are more influential in reducing consumer concern, compared to neutral reviews.



Zheng et al. (2012), Almousa (2011), and Kim et al. (2009) emphasized that consumers will use various strategies such as asking family or friends or seeking information when buying to reduce risk. The existence of clarification and the opportunity to provide assessment feedback (e-WOM) becomes a force to reduce purchasing risk. Word of mouth plays a more effective role when consumers lack knowledge or experience of a certain product (Ketelaar, Willemsen, Sleven, & Kerkhof, 2015). Ha (2002) proved that pre-purchase information can play a role in influencing consumers' risk perceptions. Positive reviews in e-WOM can form a good assessment of a product. Liang and Corkindale (2018) write that neutral e-WOM information also shows a significant effect on consumer risk perceptions, but the level of risk perception in the neutral e-WOM group is not lower than the positive e-WOM group.

The results of study 2 provide evidence that positive and neutral reviews can be rated the same or different, depending on the type of risk of the product to be purchased. The higher the product risk, the more different positive and neutral reviews will be. Conversely, the lower the risk of the product to be purchased, the positive and neutral reviews are considered almost the same. Perceptions of risk can be assessed differently from each individual because of things that are personal and related to certain conditions (Karbalaeei et al, 2013). The higher the category differences between products, the higher the risk perceived by consumers (Dholakia, 1997).

Cosmetics have physical risks, while clothes have social risks. Clothing products are included in the social risk category (Chen-Yu & Seock, 2002). Consumers who will buy clothes, can experience social risk because fashion products can influence social opinion about oneself (Lamb et al., 2011) and self image (Liljandera et al., 2009). On the other hand, cosmetic products are included in the physical risk category. Consumers who will buy cosmetic products will be careful and more selective because of its sensitive nature and riskiness, especially for facial skin (Semuel & Budiwati, 2015). The negative consequences of skin problems resulting from buying an inappropriate facial cleanser will be a greater loss for consumers than buying unsuitable clothes. Participants who bought facial cleansers were more careful in reading e-WOM, compared to participants who bought clothing products.

Based on the type of risks, it has an impact on the difference in the effect of positive and neutral reviews. For products that have physical risks, such as cosmetics, consumers will be more careful in reading and assessing neutral reviews. Neutral reviews on products with physical risks are rated more negatively, even though they also display comments on the superiority of the product.

## **GENERAL DISCUSSION**

These two experimental studies have strengthened research findings that support the effect of e-WOM on consumers' risk perceptions in purchasing goods. Positive e-WOM is considered to be the most superior in reducing risk perceptions, while on the other hand, negative e-WOM is considered to increase consumer concern in buying. The interesting thing lies in the role of neutral e-WOM, which gives different results. This difference is influenced not on the content of the review, but on the product categories with physical or social risks.

The results of these two studies can be explained through social judgment theory (Granberg, 1982). This theory emphasizes the involvement of individuals in interaction situations. Individuals evaluate and assess the information received from others. This information is used as an evaluation by comparing references and personal standards. Consumers form different points of view in assessing the information received and then generate perceptions of the product. Assessment of information from previous consumers can be subjective, because it can also be influenced by the experiences, interests, expectations, and personalities of consumers in buying goods. Consumers process information based on characteristics and discriminate, as well as categorization of messages received. Consumers will categorize neutral reviews as part of positive and negative reviews on products with social risks (i.e. clothes). Meanwhile, consumers will categorize neutral e-WOM as negative reviews on products with physical risks (i.e. facial cleansers).

## **CONCLUSIONS**

From these two experimental studies, it was found that the perceived risk of purchasing online products can be lowered through the review effect (WOM). Positive reviews are proven to be different from negative reviews, while neutral reviews are considered less consistent but can be seen from two opposing sides. These

findings also indicate that the effect of neutral reviews is also influenced by the risk characteristics of the product to be purchased.

The implications of the results of this study are useful for practitioners in online companies. The role of consumer reviews or comments regarding products is important in reducing consumer doubt in buying goods. Companies need to understand that e-WOM has a big impact on consumer behavior, so they need to focus on managing e-WOM. Satisfaction and consumer complaints should be the focus of attention for companies to identify what problems consumers feel, thus encouraging consumers to provide positive e-WOM. The results of the research can also be useful in providing theoretical contributions to the field of consumers regarding factors that reduce the perceived risk experienced by buyers. Future research needs to consider the limitations of this study, such as gender. Another aspect to consider is the number of reviews used. WOM will be more effective when it contains reviews from more than three sources.

## REFERENCES

1. Anderson, E. W. (1998). Customer satisfaction and word of mouth. *Journal of Service Research*, 1(1), 5–17.
2. Bauer, R. A. (2001). Consumer behavior as risk taking. In M. J. Baker (Ed.), *Marketing critical perspective on business and management* (pp. 13–21). New Fetter Lane, London: Routledge
3. Chan, Y. Y. Y., & Ngai, E. W. T. (2011). Conceptualising electronic word of mouth activity: An input-process-output perspective. *Marketing Intelligence and Planning*, 29(5), 488–516. doi: 10.1108/02634501111153692
4. Eriza, Z. N. (2017). Peran mediasi citra merek dan persepsi risiko pada hubungan antara electronic word of mouth (e-wom) dan minat beli (studi pada konsumen kosmetik e-commerce di Solo Raya). *Komuniti: Jurnal Komunikasi dan Teknologi Informasi*, 9(1), 14. doi: 10.23917/komuniti.v9i1.3501
5. Firdayanti, R. (2012). Persepsi risiko melakukan e-commerce dengan kepercayaan konsumen dalam membeli produk fashion online. *Journal of Social and Industrial Psychology*, 1(1), 28–33.
6. Guo, C. (2001). A review on consumer external search: Amount and determinants. *Journal of Business and Psychology*, 15(3), 505–519. doi: 10.1023/A:1007830919114
7. Ha, H. Y. (2002). The effects of consumer risk perception on pre-purchase information in online auctions: Brand, word-of-mouth, and customized information. *Journal of Computer-Mediated Communication*, 8(1), 1–35. doi: 10.1111/j.1083-6101.2002.tb00160.x
8. Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet?. *Journal of Interactive Marketing*, 18(1), 38–52. doi: 10.1002/dir.10073
9. Indiani, N. L. P., Rahyuda, I. K., Kerti Yasa, N. N., & Sukaatmadja, I. P. G. (2015). Perceived risk and trust as major determinants of actual purchase, transcending the influence of intention perceived risk and trust as major determinants of actual purchase, transcending the influence of intention. *ASEAN Marketing Journal*, 7(1), 1–13. doi: 10.21002/amj.v7i1.4601
10. Ismagilova, E., Dwivedi, Y. K., Slade, E., & Williams, M. D. (2017). *Electronic word of mouth in the marketing*. 5–15. doi: 10.1007/978-3-319-52459-7\_2
11. Jacoby, J., & Kaplan, L. B. (1972). *The component of perceived risk*. In M. Venkatesan (Ed.), Third Annual Convention of Te Association for Consumer Research. Chicago, IL. Retrieved from [https://www.researchgate.net/publication/247814928\\_The\\_Components\\_Of\\_Perceived\\_Risk](https://www.researchgate.net/publication/247814928_The_Components_Of_Perceived_Risk)
12. Jeong, H. J., & Koo, D. M. (2015). Combined effects of valence and attributes of e-wom on consumer judgement for message and product: The moderating effect of brand community type. *Internet Research*, 25(1), 2–29. doi: 10.1108/IntR-09-2013-0199
13. Ketelaar, P. E., Willemsen, L. M., Slevén, L., & Kerkhof, P. (2015). The good, the bad, and the expert: how consumer expertise affects review valence effects on purchase intentions in online product reviews. *Journal of Computer-Mediated Communication*, 20(6), 649–666. doi: 10.1111/jcc4.12139
14. Komalasari, T. . (2020, June 11). Belanja online meningkat 400%, BPKN: Masih banyak dikeluhkan konsumen. Retrieved from <https://www.pikiran-rakyat.com/ekonomi/pr-01399518/belanja-online-meningkat-400-persen-bpkn-masih-banyak-dikeluhkan-konsumen>
15. Lee, J., Park, D. H., & Han, I. (2008). The effect of negative online consumer reviews on product attitude: An information processing view. *Electronic Commerce Research and Applications*, 7(3), 341–352. doi: 10.1016/j.elerap.2007.05.004
16. Lee, M., Rodgers, S., & Kim, M. (2009). Effects of valence and extremity of ewom on attitude toward

- the brand and website. *Journal of Current Issues and Research in Advertising*, 31(2), 1–11. doi: 10.1080/10641734.2009.10505262
17. Lee, Y. C. (2014). Impacts of decision-making biases on ewom retrust and risk-reducing strategies. *Computers in Human Behavior*, 40, 101–110. doi: 10.1016/j.chb.2014.08.002
  18. Li, Z., Sha, Y., Song, X., Yang, K., Zhao, K., Jiang, Z., & Zhang, Q. (2020). Impact of risk perception on customer purchase behavior : A meta-analysis. *Journal of Bussiness & Industrial Marketing*, 35(1), 76–96. doi: 10.1108/JBIM-12-2018-0381
  19. Liang, W. K., & Corkindale, D. (2016). The effect of online word-of-mouth on risk assessment for an experience service as price acceptability changes. *Services Marketing Quarterly*, 37(3), 156–170. doi: 10.1080/15332969.2016.1184540
  20. Liang, W. K., & Corkindale, D. (2018). How eword of mouth valences affect price perceptions. *International Journal of Market Research*, 61(1), 50–63. doi: 10.1177/1470785318788469
  21. Lin, T. M. ., & Fang, C. . (2006). The effect of perceived risk on the word of mouth communication dyad. *Social Behavior and Personality*, 34(10), 1207–1216. doi: 10.2224/sbp.2006.34.10.1207
  22. Lowry, P. B., Vance, A., Moody, G., Beckman, B., & Read, A. (2008). Explaining and predicting the impact of branding alliances and web site quality on initial consumer trust of e-commerce web sites. *Journal of Management Information Systems*, 24(4), 199–224. doi: 10.2753/MIS0742-1222240408
  23. Martinayanti, N., & Setiawan, P. (2016). Peran kepercayaan dalam memediasi persepsi risiko pada niat beli produk fashion via instagram di kota Denpasar. *E-Jurnal Manajemen Universitas Udayana*, 5(4), 2026–2053.
  24. Masoud, E. Y. (2013). The effect of perceived risk on online shopping in Jordan. *European Journal of Business and Management*, 5(6), 76–88.
  25. Park, D. H., & Lee, J. (2008). Ewom overload and its effect on consumer behavioral intention depending on consumer involvement. *Electronic Commerce Research and Applications*, 7(4), 386–398. doi: 10.1016/j.elerap.2007.11.004
  26. Pelaez, A., Chen, C., & Chen, Y. X. (2017). Effects of perceived risk on intention to purchase : A meta-analysis. *Journal of Computer Information Systems*, 1–12. doi: 10.1080/08874417.2017.1300514
  27. Roy, G., Datta, B., & Mukherjee, S. (2018). Role of electronic word-of-mouth content and valence in influencing online purchase behavior. *Journal of Marketing Communications*, 25(6), 661–684. doi: 10.1080/13527266.2018.1497681
  28. Schiffman, L. G., & Kanuk, L. L. (2018). *Perilaku konsumen* (7th ed.) Upper Sadlle River, NJ: Prentice Hall.
  29. Sozer, E. G. (2019). The effect of message valence on e-wom spread: A moderated mediation analysis. *Business and Economics Research Journal*, 10(2), 541–555. doi: 10.20409/berj.2019.184
  30. Stockman, S., Hoyer, G. Van, & Veiga, M. (2019). Negative word-of-mouth and applicant attraction: The role of employer brand equity. *Journal of Vocational Behavior*, 1–57. doi: 10.1016/j.jvb.2019.103368
  31. Sweeney, J. C., Soutar, G. N., & Mazzarol, T. (2008). Factors influencing word of mouth effectiveness: Receiver perspectives. *European Journal of Marketing*, 42(3–4), 344–364. doi: 10.1108/03090560810852977
  32. Talwar, M., Talwar, S., Kaur, P., Islam, A. K. M. N., & Dhir, A. (2020). Journal of retailing and consumer services positive and negative word of mouth ( wom ) are not necessarily opposites : A reappraisal using the dual factor theory. *Journal of Retailing and Consumer Services*, 1–12. doi: 10.1016/j.jretconser.2020.102396
  33. Tang, T., Fang, E., & Wang, F. (2014). Is neutral really neutral? The effects of neutral user-generated content on product sales. *Journal of Marketing*, 78(4), 41–58. doi: 10.1509/jm.13.0301
  34. Vázquez-Casielles, R., Suárez-Álvarez, L., & del Río-Lanza, A. B. (2013). The word of mouth dynamic: How positive (and Negative) WOM drives purchase probability: An analysis of interpersonal and non-interpersonal factors. *Journal of Advertising Research*, 53(1), 43–60. doi: 10.2501/JAR-53-1-043-060
  35. Wang, S., Cunningham, N. R., & Eastin, M. S. (2015). The impact of ewom message characteristics on the perceived effectiveness of online consumer reviews. *Journal of Interactive Advertising*, 15(2), 151–159. doi: 10.1080/15252019.2015.1091755
  36. Xu, C., & Park, H. S. (2014). The effects of risk perception on e-wom in internet shopping of Chinese consumers in their 20s. *Journal of the Korean Society of Clothing and Textiles*, 38(5), 690–704. doi:

10.5850/jksct.2014.38.5.690

37. Yuniarti, V. S. (2015). *Perilaku konsumen: teori dan praktik*. Bandung, ID: Pustaka Setia.
38. Zhang, Y., & Yang, Q. (2019). Assessing hotel decision-making of disabled guests: Satisfaction correlation study between online comments' credibility and perceived risk. *Electronic Commerce Research*. doi: 10.1007/s10660-019-09343-w
39. Zhang, Z., Li, X., & Chen, Y. (2012). Deciphering word-of-mouth in social media: Text-based metrics of consumer reviews. *ACM Transactions on Management Information Systems*, 3(1). doi: 10.1145/2151163.2151168